



Approvals Pro Setup and Configuration Guide

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1. Installation and setup

Before you can start configuring your first approval process, there are a number of setup steps that have to be performed on your system. Follow all steps below in the prescribed order to correctly set up Approvals Pro.

1.1. Install the Approvals Pro package

The first step is to install the Approvals Pro package, if you have not already done that. The installation link for the latest version can be found on our AppExchange listing:
<https://appexchange.salesforce.com/appxListingDetail?listingId=aON3A00000FMcp7UAD>

When installing the package, you will be asked whether you want to install it for Admins Only, for All Users, or for Specific Profiles. You should select **'Admins Only'** here. Any additional users can be added by using the Approvals Pro Permission Sets.

1.2. Enable APEX record locking

The next thing to do is to enable apex record locking on your org. This is needed to enable Approvals Pro to lock records while they are in an approval process.

Go to Setup -> Process Automation Settings and check the checkbox behind "Enable record locking and unlocking in Apex". This will not have any direct consequences for your system, although it does enable your developers to make use of this functionality as well.

1.3. Create an email handler for incoming approval emails

Create an email handler service so that Approvals Pro can automatically handle replies to approval emails.

- Go to Setup -> Email Services
- Click 'New Email Service'
 - o Email Service Name -> Approvals Pro Email Service
 - o Apex Class -> ApprovalEmailService
 - o Active -> True
- Click 'Save and New Email Address'
 - o Email Address Name -> Approvals_Pro_Email_Service_Address
 - o Email address -> Approval_Email_Service
 - o Active -> True
 - o Context User -> any admin user
 - o Accept Email From -> empty
- Click 'Save'

That's it. You're now set-up to receive email responses to approval emails.

WARNING: whenever refreshing sandboxes, email services will stop working. The email service will still be copied from Production but you will have to generate a new email address under it.

1.4. Set up the nightly batch job

Approvals Pro has a nightly batch job that takes care of re-assigning approvals to delegated approvers or back to the original approver. This batch job needs to be scheduled in Salesforce.

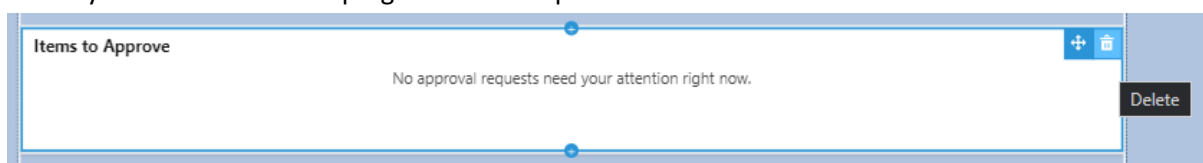
- Go to Setup -> Apex Classes
- Click 'Schedule Apex'
- Job Name: Approvals Pro Nightly Batch
- Apex Class: ReminderScheduler
- Frequency/start time: This is up to you to decide. We recommend running it each day in the early morning. Running it daily can be achieved by checking the checkboxes for each day of the week.

1.5. Replace your Home Page Component

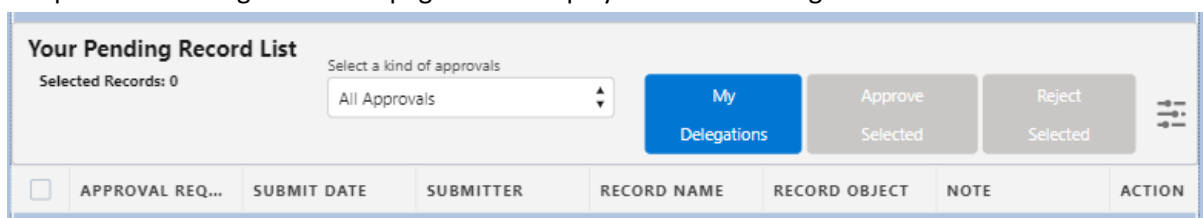
Any end user that needs to do approvals needs to have an overview of their pending approvals. Approvals Pro has its own Home Page Component that replaces the standard Salesforce "Items to Approve" component. The Approvals Pro Home Page Component also includes any 'standard' approvals so it can completely replace the "Items to Approve" component.

To set this up, follow these steps:

- Go to your "Home" tab
- Click the  symbol at the top-right of the screen and then click 'Edit Page'
- Look for the 'Items to Approve' component and, if it's on the page, remove it by clicking on the recycle bin icon at the top right of the component



- In the Components list on the left side of the screen, look up the "CurrentUserApprovalPage" component and drag it onto the page. It will display as "Your Pending Record List"



That's it! Your users now have all their pending approvals (both Approvals Pro and standard approvals) in 1 place.

Some additional remarks:

- You can put this component on any page. It doesn't need to be the home page
- Tell your users that they can manage their delegations from here as well (using the 'My delegations' button). This includes advanced functionality for planned delegations for e.g. holiday periods. The delegation selected here will also automatically update the standard Salesforce delegated approval.

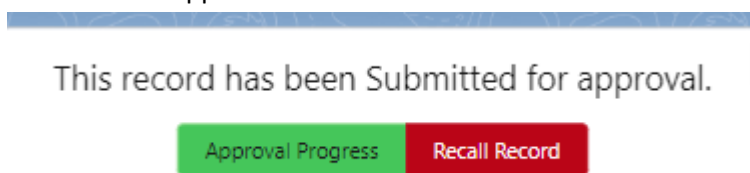
- Standard Salesforce visibility filters can be applied to this component, e.g. if you have certain user groups that do not do approvals you can hide the component for them.

1.6. Add the 'Approval' component to your Record Page(s)

When you have set up an approval process for an object, you need to also enable users to submit those records for approval, or view the approval progress.

To set this up, follow these steps:

- Go to any record detail page for the object that you want to enable
- Click the  symbol at the top-right of the screen and then click 'Edit Page'
- In the Components list on the left side of the screen, look up the "SubmitButton" component and drag it onto the page. It will display an example value, e.g. "This record has been submitted for approval"



- If you want, you can also add the 'Approval History' component to the same page. In the Components list on the left side of the screen, look up the "ApprovalHistory" component and drag it onto the page.

Approval History(7+)			
			Submitted By Peter Wood
STEP NA...	DATE	STATUS	APPROVER
manager1 ...		Assigned	Joe Green
advertising...		Assigned	Joe Green
Main mana...		New	Joe Green
advertising...		Reassigned	Vodafone
advertising...		Assigned	Joe Green
chief of ad...		New	Joe Green
manager3 ...		New	Joe Green
View All			

Some additional remarks:

- These components will only work on Record pages. And they will only start working once an Approval Process has been set up for that object type.
- Standard Salesforce visibility filters can be applied to these components, e.g. if you only want to show the component(s) for certain types of records, or in a certain record state, you can easily build rules to hide it.

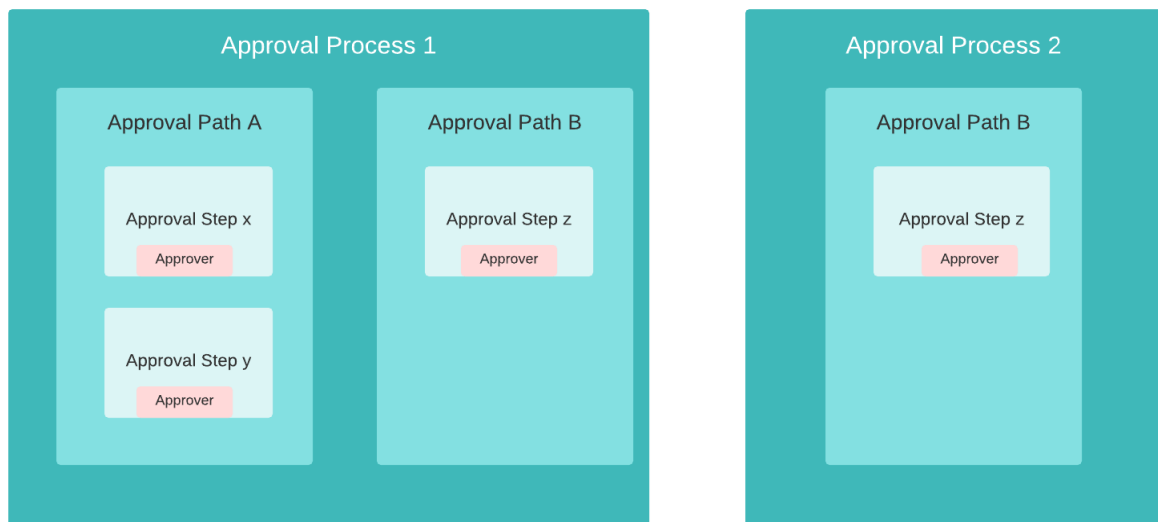
1.7. Assign Permission Sets to any users that need to use Approvals Pro

To get the right set of permissions for using Approvals Pro, some users will need a Permission Set assigned.

- **Approval Process admins** need the permission set **“ApprovalsPro Admin User”**
- **Any user that needs to do Approvals** needs the permission set **“ApprovalsPro Approver User”**
- **Any user that needs to Submit records for approval** needs the permission set **“ApprovalsPro Submitter User”**

2. General Information

Before starting the setup and configuration of Approvals Pro it is vital to understand the structure of the setup. We will point out the most important components of Approvals Pro and their relationships using a diagram representing an example Approval Process setup.



5 key aspects to remember from this diagram:

1. You can have multiple **Approval Processes** set-up on the same **object**
2. Each **Approval Process** consists of 1 or more **Approval Paths**
3. **Approval Paths** on the same object are **reusable** across Approval Processes (e.g. Path B in the example)
4. Each **Approval Path** consists of 1 or more **Approval Steps**
5. Each **Approval Step** has 1 or more **Approvers**

Each of these aspects will be covered in more detail in the respective paragraphs on setting up the Approval Process.

3. Configuration

3.1. Before you start

1. Ensure that you have performed the steps in the Installation and Setup
2. Ensure that you have any Approval Groups you need set-up as Public Groups in Salesforce. To set up your Salesforce Groups, please see the Salesforce article on [Creating and Editing Groups](#).

3.2. Approvers

Approvers in Approvals Pro are kept in a separate table. Each Approval Step that you will be configuring requires an Approver. If no Approver is connected, that Step will just be skipped.

3.2.1. Approver types

There are 6 types of Approvers in Approvals Pro:

1. User Approver – linked 1:1 to a User record
2. Group Approver – a Public Group
3. Role Approver – a Role
4. User Lookup – use a lookup, text or formula field to indicate the Approver User
5. Group Lookup – use a text or formula field to indicate the Approver Group
6. Role Lookup – use a text or formula field to indicate the Approver Role

For types 4-6 you need to create a new field on the record to be approved. That field should contain a record Id of the User/Group/Role to be used for the approval. This enables you to dynamically assign an approver, depending on the record context.

The new field can be a Text field or a Formula field (type=text).

Note that by running the script from Installation and Setup there will already be a set of Approver records in your org (one for each User in the system).

3.2.2. Creating new Approvers

Creating new Approvers can be needed in the following cases:

- New users are being added to the system
- You need a Group Approver (this means anybody in a certain Group can approve)
- You need a Role Approver (this means anybody in a certain Role can approve)

To create a new Approver, follow these steps:

1. Navigate to the **Approvers** tab.
2. Click **New** to add an Approver.
3. Enter the **Approver Name**.
4. Select the **Approver Type**
5. For Type **User**, click the **User** lookup to select a user
6. For Type **Group**, enter the API name of the Public Group in the **Group Name** field
7. For Type **Role**, enter the API name of the Public Group in the **Role Name** field
8. For Type **User Lookup**, enter the API field name of the dynamic User field in the **Lookup Path** field. This could e.g. be 'Owner' or 'Owner.Manager'
9. For Type **Group Lookup**, enter the API field name of dynamic Group field in the **Group Lookup** field
10. For Type **Role Lookup**, enter the API field name of dynamic Role field in the **Role Lookup** field
11. Click Save.

3.3. Approval Status

Any record submitted for approval requires a status field to track the progress of the approval process. This status field needs to be created before setting up the approval process. It needs to be:

- a *text-* or *picklist* field on the object that requires the approval process (find picklist values below)
- the field should be read-only for all users except system administrator
- the field needs to be added to all standard page layouts
- the field does not necessarily need to be included on Lightning Record Pages

(The reason the field needs to be on the standard page layout is that Lightning Components use the page layouts as a source for fetching data.)

The Approvals Pro package will write the current Approval Status into that field whenever one of the following statuses is met:

- Pending: The record has been submitted for approval and is pending approval by one or more approvers.
- Approved: All required approvers have approved the request.
- Rejected: One or more approvers have rejected the approval request.
- Recalled: The approval submitter has recalled the approval request.

3.4. Approval Process

3.4.1. Creating a new Approval Process

The first step in setting up approvals for an object is to create an Approval Process. An Approval Process is a collection of serial or parallel (or both) approval paths that belong together and the approval process has only 1 result: an update to the approval status of a record.

It is possible to set up multiple Approval Processes for 1 object, but only 1 Approval Process can run at the same time. If multiple Approval Processes are applicable at the time a record is submitted for approval, only the process with the highest priority will run.

Multiple Approval Processes on 1 object do not necessarily need to save their outcome to the same field. There could be e.g. a 'Technical Approval Status' field and a 'Commercial Approval Status' field that both get fed by a different Approval Process.

To set up an Approval Process follow these steps:

1. Navigate to the **Approval Processes** tab.
2. Click **New** to add a new Approval Process.

The screenshot shows the 'New Approval Process' form with the 'Information' tab selected. The form contains the following fields and controls:

- *Approval Process Name:** A text input field.
- Active:** A checkbox that is currently checked.
- *Process Order:** A text input field.
- Description:** A text area.
- Buttons:** 'Cancel' and 'Save' buttons at the bottom right.

The screenshot shows the 'New Approval Process' form with the configuration tab selected. The form contains the following fields and controls:

- *Available Objects:** A dropdown menu.
- *Final Action Status Field:** A dropdown menu.
- Lock Record After Submit:** A checked checkbox.
- Allow To Edit Record By Approvers:** A checked checkbox.
- Allow Resubmit:** A checked checkbox.
- Make Submitted Message Required:** A checked checkbox.
- Allow Ad-Hoc Addition Of Approvers:** A checked checkbox.
- Buttons:** 'Cancel' and 'Save' buttons at the bottom right.

3. Enter the **Approval Process Name**.
4. Leave the **Active** checkbox activated unless you want to set up an inactive process.
5. Enter the **Process order** (This is used to determine which process will run in case there are more than 1 applicable process). If this is the first or the only Approval Process on an object, you can put '1' in this field.
6. Select the object to be approved in **Available Objects**
7. Select the Approval Status field in **Final Action Status Field** (all text and picklists fields on the Object will be loaded onto the picklist). If you don't have an approval status field yet, follow the instructions in paragraph 3.3.

8. By using "**Lock record after submit**" you can indicate whether or not the record should be locked after having been submitted. If it is locked, nobody except a system admin can edit the record while it is in the approval process.
9. By using "**Allow To Edit Record By Approvers**" you can indicate whether or not the current approver has the option to edit the record.
10. By using "**Allow To Resubmit**" you can indicate whether or not the current approver has the option to resubmit the record for approval after editing it. This way, the complete remaining approval process will be recalculated. Any new approvals caused by the edit will also be triggered. Any approvals that are no longer required after the edit will be revoked.
11. Make **Submitted Message Required** – Enforce that submitters provide a message or comment when submitting a record for approval. This helps maintain a clear audit trail and communication between users.
12. Allow **Ad-Hoc Addition of Approvers** – This setting permits users to add additional approvers on-the-fly during the approval process, enabling more flexibility in dynamic approval scenarios.

▼ Email Templates

Approved Email Template	Send To
--None--	--None--
Rejected Email Template	Send To
--None--	--None--
Recalculation Email Template	Send To
--None--	--None--
Conflict Approver Email Template	
--None--	

Cancel Save

13. "**Approved Email template**" -> select the email template to be sent when a record has been approved. In the "Send To" field you can specify who should receive this email.
14. "**Rejected Email template**" -> select the email template to be sent when a record has been rejected. In the "Send To" field you can specify who should receive this email.
15. "**Recalculation Email template**" -> select the email template to be sent when a record has been resubmitted and recalculated. In the "Send To" field you can specify who should receive this email.
16. "**Conflict Approver Email template**" -> select the email template to be sent to the Approval Process Owner when a conflict occurs during the approval process (e.g. an approver is inactive and has no replacement)
17. Click **Save**. This will take you to the main Approval Process page for the newly created Approval Process.
18. You can now add Entry Criteria to the Approval Process. Entry Criteria determine whether the Approval Process can be started on a particular record. If a record does not meet the Entry Criteria, it cannot be submitted for approval. Since the setup of Entry Criteria works the same

way across Approval Processes, Approval Paths and Approval Steps, we have described the creation of Entry Criteria in a separate chapter, chapter 3.5.

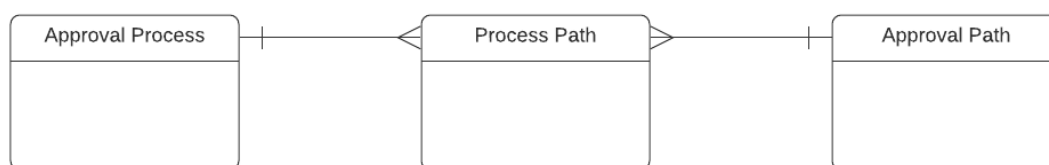
If you don't select any option in one of the "Send To" fields, no email will be sent in such a scenario. Note that you are always able to attach your own configuration logic for sending emails, based on e.g. the Approval Status that is written back into the record to be approved.

3.4.2. Creating a new Approval Path

After having created a new Approval Process, it's time to create 1 or more Approval Paths. An Approval Process can contain multiple Approval Paths, and those Paths can also be dependent on each other.

Approval Paths basically are groups of Approval Steps that can be reused across Approval Processes (on the same object). To make this possible, the relationship between Approval Process and Approval Path is many-to-many. The junction object between Approval Process and Approval Path is called **Process Path**.

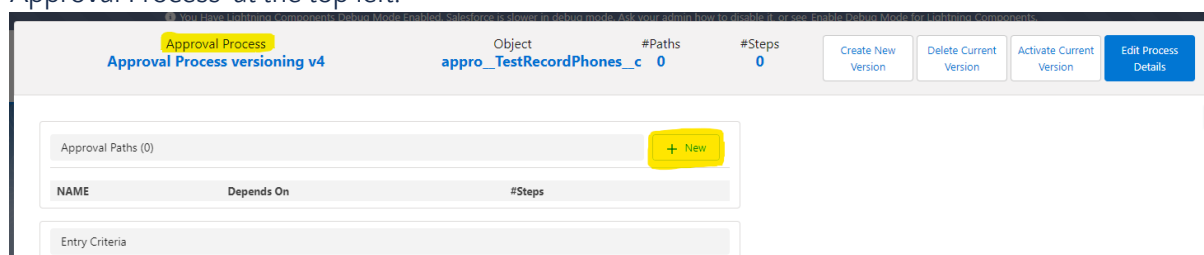
This is what this looks like in the data model:



Luckily you don't have to worry about creating these relationships. Approvals Pro will take care of this for you.

Let's start with creating 1 new Path:

1. Go to your Approval Process and make sure you're on the main screen. It should say 'Approval Process' at the top left.



2. Click **New** to add a new Approval Path.
3. A new screen will pop up where you can choose to use an existing path or create a new one.

Add Path

*** Approval Path**

[+ New Path](#)

Depends On

To re-use an existing path, click on 'Search Approval Paths' and locate the path you want to use. In case you want to create a new path, click 'New Path'.

(In the next steps we will assume you want to create a new path. If you select an existing path, you can continue with step 5).

New Approval Path

*** Approval Path Name**

Import Key

*** Available Objects**

Color

Hide From Profile Ids

Additional Options

Available

Skip if not applicable

Selected

Description

1. Enter the **Approval Path Name**.
2. **Import Key** – leave this field empty. It is only used for migration purposes
3. **Hide from profile IDs** – you can fill in a list of comma-separated profile IDs to which this path should be hidden in any approval preview or status view.
4. **Additional Options** – you can configure some additional options available to Path creation. The options are:
 1. **Skip if not applicable** – if this option is selected, if the path entry criteria are not met (i.e. path not applicable), any dependent paths will still be

executed. The default setting (not selected) means that if path entry criteria are not met, the process will end there.

5. **Description** – you can enter a description for internal documentation here.
6. Press “Save” to save the Path.
4. You will be returned to the ‘Add Path’ popup with the newly created path selected as the Approval Path

Add Path

* Approval Path

test path

+ New Path

Depends On

Search Process Paths...

Cancel Save

5. In the ‘**Depends On**’ field you can select any other path on the same Approval Process on which the new path depends. This means that the new path will only execute once the selected Path has been completed. In the ‘Depends On’ you need to select a Process Path, because that is the ‘instantiation’ of the Path within this Approval Process. You will recognize the correct Process Path to select by the indication of the path name under the PP-number of the Process Path. E.g. ‘test path’ in the screenshot below.

Add Path

* Approval Path

path 2

+ New Path

Depends On

Search Process Paths...

Recent Process Paths

PP-009555 test path

Cancel Save

- Click **'Save'** to save the new Process Path including any dependencies. You will be returned to the main Approval Process screen.
- Once you've created a new path, you can also set up Entry Criteria for the path. This is optional. It allows you to skip the entire path if Entry Criteria are not met. The alternative is to not have Entry Criteria on the Path, but only on the individual Steps in the Path. To set up Entry Criteria on the Path, click on the Path Name on the main Approval Process screen.

The screenshot shows the 'Approval Process' screen for 'Approval Process versioning v4'. The object is 'appro_TestRecordPhones_c'. There is 1 path and 0 steps. A table titled 'Approval Paths (1)' contains one entry: 'test path' with 0 steps. A yellow highlight is on the 'test path' name. Below the table is an 'Entry Criteria' section.

NAME	Depends On	#Steps
test path		0

- This will open the main Approval Path screen. You can recognize it by the words 'Approval Path' at the top left.

The screenshot shows the 'Approval Path' screen for 'test path'. The object is 'appro_TestRecordPhones_c' and there are 0 steps. The screen includes sections for 'Approval Steps (0)', 'Entry Criteria', 'Criteria Logic', 'Criteria Expression', 'Conditions (0)', 'Matrices (0)', and a table for 'NAME', 'Row', 'Type', and 'Query Expression'.

- You can now add Entry Criteria to the Approval Path. Since the setup of Entry Criteria works the same way across Approval Processes, Approval Paths and Approval Steps, we have described the creation of Entry Criteria in a separate chapter, chapter 3.5.

The Path is now ready for adding Approval Steps.

3.4.3. Creating a new Approval Step

After having created a new Approval Path, we can add the actual Approval Steps to it. An Approval Path can contain multiple Approval Steps, and those Steps can also be dependent on each other.

Let's start with creating 1 new Approval Step:

1. Go to your Approval Process and make sure you're on the main screen. It should say 'Approval Process' at the top left.

2. Click the name of an Approval Path to go to that Path's screen. You can recognize it because it says 'Approval Path' at the top left.

3. Click 'New' next to the Approval Steps list to create a new Approval Step.
4. A new screen will pop up where you can enter the Step Details

1. Enter the **Approval Step Name**.
2. **Active** – enables you to draft an approval step without activating it. Default value is checked.
3. **Description** – you can enter a description for internal documentation here.
4. **Approval Reason** – you can fill in a text describing the reason for the approval. The text will be shown to the submitter when they preview the approval process or view the approval progress, so they know why the approval step is there. If you don't fill in anything, no explanation for the approval will be shown.
5. **Resolve On** – this determines what is needed to mark the Step as approved. Particularly used for Group approvals. The options are:
 1. First Approval (any person that approves (whether individual or group) will get the step approved. Even if others in the group have rejected)
 2. Unanimous Approval – all approvers are required to approve
 3. First Approval/Reject – the decision of the first person in the group determines the outcome (this is the default setting)
 4. Democratic Approval – a majority share of the group members determines the outcome. An additional input will be needed: Democratic Approval Percentage. This is the threshold percentage for approval. E.g., if the percentage is set to 50% and there are 5 group members, the record will be approved as soon as 3 people have approved (or rejected once 3 people reject).
6. **Democratic Approval Percentage** – threshold percentage for group decision-making under Democratic Approval.
7. **Start Date / End Date** – enables you to specify a Start Date and End Date for the Approval Step. The Step will not trigger before the Start Date nor after the End Date. You can also specify only 1 of the 2 dates.

The screenshot shows a configuration window titled "New Approval Step". It features a list of "Additional Options" on the left and a "Selected" list on the right. The "Additional Options" list includes "Skip if not applicable" (selected), "Make Approver Message Required" (unchecked), and "Make Rejection Message Required" (unchecked). The "Selected" list is empty. At the bottom right, there are "Cancel" and "Save" buttons.

8. **Additional Options** – you can configure some additional options available to Path creation. There is currently only 1 option here:
 1. Skip if not applicable – if this option is selected, if the step entry criteria are not met (i.e. step not applicable), any dependent steps will still be executed. The default setting (not selected) means that if step entry criteria are not met, the process will end there.
9. **Make Approval Message Required** – require approvers to enter a message or comment when approving the record (both via the UI and via email). This ensures a clear audit trail and communication.

10. **Make Reassignment Message Required** – require approvers to enter a message when reassigning the approval to someone else.
11. **Make Rejection Message Required** – require approvers to provide a reason or comment when rejecting the record (both via the UI and via email).
12. **Remember Approval Decision** – saves the approver's previous decision to enable automatic approval of future approvals when the record is submitted for approval multiple times .

New Approval Step

☒ Make Approver Message Required
 ☒ Make Reassignment Message Required

☒ Make Rejection Message Required
 ☒ Remember Approval Decision

Dependency

Depends On

Email Templates

Request Email Template

Recall Email Template

Cancel

Save

13. **Depends On** – you can select any other Approval Step in the same Approval Path on which this Step depends. Selecting another step here will mean that the current Approval Step will only execute after that step has been completed.
 14. **Request Email Template** – the email template that will be used for sending to the approver as a request to approve.
 15. **Recall Email Template** – the email template that will be sent to the approver if this approval step is recalled after having been assigned to the approver. This could happen if the submitter decides to recall the approval process.
5. Click 'Save' to save the new Approval Step. You will be returned to the Approval Path screen where you started the Step creation. The new Step will be shown on the screen.

Approval Path

test path

Object

appro_TestRecordPhones_c

#Steps

0

Edit Path Details

Approval Steps (1)

+ New

NAME	Depends On	#Steps
test step		

Entry Criteria

6. After creating the Step Approvers, you can also set up the Approver(s) for the step. To set up Approver(s) for the Step, click on the Step Name.
7. This will open the main Approval Step screen. You can recognize it by the words 'Approval Step' at the top left.

Approval Step
test step

Depends On #Dependent Steps #Dependent Approvers Edit Step Details

Approvers (0) + New

NAME	Type	Receive Approval Request Emails
------	------	---------------------------------

Entry Criteria

Criteria Logic

Criteria Expression

Conditions (0) Variables Edit + New

NAME	Row	Type	Query Expression
------	-----	------	------------------

Matrices (0) + Add

NAME	Object	Child Object
------	--------	--------------

100% Cancel Back

- To add a new Approver to the Step, click on the 'New' button next to Approvers.

Approval Step
test step

Depends On #Dependent Steps #Dependent Approvers Edit Step Details

Approvers (0) + New

NAME	Type	Receive Approval Request Emails
------	------	---------------------------------

Entry Criteria

Criteria Logic

Criteria Expression

Conditions (0) Variables Edit + New

NAME	Row	Type	Query Expression
------	-----	------	------------------

Matrices (0) + Add

NAME	Object	Child Object
------	--------	--------------

100% Cancel Back

- This will open the 'Add Approver' popup screen. Here you have 2 options: use an existing Approver or create a new Approver. If you plan on creating a new approver, it is always good to first check whether that Approver already exists. To do so, start typing in the 'Search Approvers' section to see if you can find the approver.

10. If you find the Approver you need, click '**Save**' to save the new approver.
11. If you do not find the Approver you need, click '**New Approver**'. This will open the 'New Approver' popup.

12. To create a new Approver, fill in the fields:
 1. **Approver Name** – for User type Approvers, it is advised to use the exact same name as the User to avoid confusion. For other approver types, you can use a name that will make sense to your end users.
 2. **Receive Approval Request Emails** – here you can specify whether the approver will receive emails of approval requests. Options are:
 1. **If I am an approver or delegated approver**
 2. **Only if I am an approver**
 3. **Only if I am a delegated approver**
 4. **Never**
 3. **Type** – select the type of approver, as described in paragraph 3.2.1
 4. **Dynamic field** – based on the type of approver you select, you will need to specify additional information:
 1. **User** – select the User
 2. **Group** – specify the DeveloperName of the Public Group
 3. **Role** – specify the DeveloperName of the Role

4. **User Lookup** – specify the API fieldname of the lookup field that contains the User that needs to approve (e.g. 'OwnerId' or 'LastModifiedById'). This can be a User Lookup field but it can also be a formula field or a text field containing a User Id.
5. **Group Lookup** – specify the API fieldname of the text or formula field that contains the DeveloperName of the Public Group.
6. **Role Lookup** – specify the API fieldname of the text or formula field that contains the DeveloperName of the Role.
7. Press **Save** to save the new Approver. This will take you back to the 'Add Approver' screen with the new Approver selected as Approver.

8. Press 'Save' again to add the Approver to the Approver Step. This will take you back to the Approval Step screen where you can see that your new Approver has been added.

13. You can repeat this process to add more than 1 Approver to a Step.
14. You are now ready to add Entry Criteria to the Approval Step. Since the setup of Entry Criteria works the same way across Approval Processes, Approval Paths and Approval Steps, we have described the creation of Entry Criteria in a separate chapter, chapter 3.5.

3.5. Entry Criteria

Entry Criteria play an important role in Approvals Pro. They determine whether an Approval Process, Approval Path or Approval Step is 'entered' i.e. is executed or not.

There are two types of Entry Criteria:

1. **Conditions** – Can be used for Processes, Paths, and Steps. These are based on field values or fixed logic.
2. **Matrices** – Can only be used for Paths and Steps. These use pre-defined matrix logic to determine entry.

3.5.1. Conditions

Conditions are managed in a separate child object, which enables you to combine multiple conditions for 1 approval process, path or step. 1 condition will usually be equal to 1 logic 'check' you do in your data, either on record level or on child record level.

There are 3 different types of Conditions:

1. **Clause** - this is a condition on record-level, i.e. if your approval is on Opportunity, you can filter on Opportunity fields here.
2. **Aggregation** - this is a condition on child-level, i.e. if your approval is on Opportunity, you can create an aggregation on OpportunityLineitem fields here. This is very similar to a rollup summary in Salesforce, but it is executed in-memory instead of requiring a rollup field. The definition of such an 'in-memory rollup' can be re-used across Conditions. This definition is stored in a so-called '**Variable**'. You will learn more about Variables later.
3. **Variable Calculation** – This allows for more complex, dynamic logic using calculated variables or expressions. It supports referencing fields, combining logic across multiple conditions, and defining reusable expressions that can return true or false. This makes it ideal for approval logic that goes beyond standard field filtering.

Clauses and Aggregations and Variable Calculations can be combined and mixed on a process, path or step. After setting up a set of conditions, you can also define the logic of how the conditions should be combined. E.g.

ConditionA AND ConditionB AND ConditionC

This means that the process/path/step will only trigger if ALL 3 conditions have been met.

And another example:

ConditionA OR (ConditionB AND ConditionC)

This means that the process/path/step will only trigger if either ConditionA is met, or ConditionB AND ConditionC are met.

NOTE: we do not recommend using Aggregations and Variable Calculations as a condition for entry criteria on Approval Process level. The reason for this is that every time a user loads the record detail

page, Approvals Pro will re-calculate the entry criteria. This can impact the performance of your page, as multiple child records might need to be queried and evaluated.

The way to set up Conditions is the same on all levels. The first step is to decide whether you need a Clause, an Aggregation or a Variable Calculation. If you only need to trigger based on data on the approved record itself, then create a **Clause**. If you need to trigger based on aggregated data on child records, then use an **Aggregation**, if you need to trigger based on values that are calculated based on aggregated data on child records, then use **Variable Calculation**.

3.5.2. Setting up a new Clause Condition

Follow these steps to create a new Clause on any level (process/path/step):

1. Press 'New' on the Conditions section.

2. This will expand the screen with a section for creating new conditions. For creating a new Clause, select type 'Clause'.

3. On the 'Value' column select the field on the record that you want to use in the Clause
4. On the 'Operator' column select the filter operation:
 1. Equal (*all fields types*)
 2. Not equal (*all fields types*)
 3. Greater than (*only available for number fields*)
 4. Less than (*only available for number fields*)
 5. Less or equal (*only available for number fields*)
 6. Greater or equal (*only available for number fields*)
 7. Contains (*only available for text fields*)
 8. Does not contain (*only available for text fields*)
5. On the 'Value' column select the type of value to compare against:
 1. Custom Value – this will allow you to select any value in the last field.
 2. Any other field – this allows you to compare 2 fields on the record to each other.

- Depending on the setup of your Approval Step, you will also see the **Validate Field Changes** checkbox here. This option helps the system decide whether a field change should trigger a new approval or not. For more on how this checkbox works, see the explanation provided in the last paragraph of this chapter.
- Don't forget to press 'Save' to save the new Condition. The screen will be updated to show the newly created Condition.

Entry Criteria

Criteria Logic

Criteria Expression

Conditions (1)

NAME	Row	Type	Query Expression
CN-025926	1	Clause	appro__Cost__c > 100

Variables Edit New

3.5.3. Setting up a Variables

- If you need an Aggregation, you first need to set up the actual aggregation definition (aka 'Variable') before you can use it in a Condition. And you can also decide to re-use an existing aggregation definition in your Condition.
- Setting up a new Aggregation Variable is done by clicking the 'Variables' button on the Conditions section.

Entry Criteria

Criteria Logic

Criteria Expression

Conditions (0)

Variables Edit New

NAME	Row	Type	Query Expression
------	-----	------	------------------

- This will open a pop-up screen with all the existing Variables on your system, and the option to create a new variable. To create a new variable, click the 'New' button.

Variables (16)

NAME	Object	Aggregate Function	Aggregated Field	Aggregate Filter Clause
december	appro__phoneModel__c	Sum	appro__Model__c	
PhoneVar1	appro__phoneModel__c	Min	appro__Model__c	

New

- This will open the New Variable definition screen. Fill in the fields to create a new Variable:

1. **Variable Name** – specify a name for the Variable. This name cannot contain spaces. It should be a name by which you and other admins can easily identify what the variable does. E.g. 'CountOpportunityLineitems'
2. **Object** - select the child object on which the aggregation should be run
3. **Aggregated Field** – select the field to be used for calculating the sum, average, maximum or minimum of child records. In case you just want to count child records, you can select any field here.
4. **Aggregate Function** – select count, sum, average, minimum or maximum.
5. Press **'Save'** to save the new Variable. This will take you to the 'Edit Variable' screen where you can finalize the Variable creation by e.g., adding a filter for child records. This enables you to e.g. only count the Opportunity Line Items with a price above \$100.

Filter Criteria for child records on Variable are created using the same 'Entry Criteria' setup as for processes, paths and steps. Except they are limited to only Conditions of type 'Clause', i.e. fields on the child record itself. For a detailed explanation on how to create Clauses, please check the previous paragraph, 3.5.2.

3.5.4. Setting up a new Aggregation Condition

Aggregations are used to define condition values based on child data. E.g.

'Trigger this approval step if the total quantity of line items with type subscription is higher than 10'.

In order to use an aggregation condition, you first need to set up the Variable used on the condition. The previous paragraph contains information about how to do that.

Follow these steps to create a new Aggregation Condition on any level (process/path/step):

8. Press 'New' on the Conditions section.

9. This will expand the screen with a section for creating new conditions. For creating a new Aggregation, select type Aggregation.

10. On the 'Value' column select the Variable that you want to use in the Clause
11. On the 'Operator' column select the filter operation:
 1. Equal (*all fields types*)
 2. Not equal (*all fields types*)
 3. Greater than (*only available for number fields*)
 4. Less than (*only available for number fields*)
 5. Less or equal (*only available for number fields*)
 6. Greater or equal (*only available for number fields*)
12. On the 'Value' column select the type of value to compare against:
 1. Custom Value – this will allow you to select any value in the last field.
 2. Any other field – this allows you to compare the Variable to another field on the parent record, or to another Variable.
13. If you selected Custom Value, you will also need to fill in the value to compare against.
E.g. in our example, this would be '10'
14. Depending on the setup of your Approval Step, you will also see the **Validate Field Changes** checkbox here. This option helps the system decide whether a field change should trigger a new approval or not. For more on how this checkbox works, see the explanation provided in the last paragraph of this chapter.
15. Don't forget to press 'Save' to save the new Condition. The screen will be updated to show the newly created Condition.

Conditions (2)					Variables	Edit	New
Name	Row	Type	Query Expression	Validate Field Changes			
CN-000014	1	Clause	Discount_Percentage_c > 15				
CN-000026	2	Aggregation	\$SumOfQuantityAcrossAllLineItems > 3				

3.5.5. Setting up a new Variable Calculation Condition

Variable Calculations can be used to calculate condition values based on child data. An example might 'the average discount percentage on opportunity line items of type Subscription'. This would require extracting the total gross price and the total net price for that type of line item only, and performing a calculation on them, e.g:

$$([TotalSubscriptionGrossPrice] - [TotalSubscriptionNetPrice]) / [TotalSubscriptionGrossPrice]$$

Follow these instructions to set up such a Condition on your Approval Step:

1. If you need to perform dynamic logic using calculated variables or expressions, you first need to set up the Variable definition before you can use it in a Variable Calculation. You can also choose to re-use an existing Variable definition. For instructions on how to set up Variables, please have a look at the previous paragraph.

(in the example provided above, the Variables to set up would be TotalSubscriptionGrossPrice and TotalSubscriptionNetPrice)

2. You can set up a new Variable Calculation when adding a new Condition. The first step is to select the type 'Variable Calculation'. Once you have selected that type, the appearance of the 'Value' field will change and you can click on the opposite arrows icon to enter the variable calculation definition screen.

The top screenshot shows the 'Conditions (0)' interface with a table containing one row. The 'Type' dropdown is open, showing options: 'Select type', 'Clause', 'Aggregation', and 'Variable Calculation'. The bottom screenshot shows the same interface, but the 'Value' field now contains a red circle around the 'Variable Calculation' icon, indicating the next step in the setup process.

3. This will open the Variable Calculation definition screen. You can set up your calculation by combining Variables and Operations in the desired way. Both are available from the dropdown menus at the top of the popup screen.

For the earlier example, the formula would look like this:

$$\frac{(\$TotalSubscriptionGrossPrice - \$TotalSubscriptionNetPrice)}{\$TotalSubscriptionGrossPrice}$$

4. Once you have created the calculation, you can Validate it by clicking the Validate button.
5. Once you have validated the calculation, you can Save it by clicking the Save button.
6. Once you have saved the calculation, you will be taken back to the Condition definition screen, where you can enter the Operator and Value to compare the Variable Calculation with.

In our example, we would want to trigger an approval if the average discount level is higher than 20%, so we enter 'Greater than' as the Operator and fill in 0.2 as the value (the outcome of the calculation is not a percentage but a numeric value)

7. Depending on the setup of your Approval Step, you will also see the **Validate Field Changes** checkbox here. This option helps the system decide whether a field change should trigger a new approval or not. For more on how this checkbox works, see the explanation provided in the last paragraph of this chapter.
8. Don't forget to press 'Save' to store the new Condition.

3.5.6. Setting up Validate Field Changes

If your Approval Step has been set up to 'Remember Approval Decision', then while setting up your Conditions, you have the option to enable "Validate Field Changes". This feature can be used to ensure that the system only remembers the decision on a step when there has been no relevant update to the related field value(s). If there is a relevant change, then the decision is 'forgotten' and the approver will be asked to approve again upon any re-submission of the record.

If you have checked the "Remember Approval Decision" checkbox on a Condition, the system will store the condition's values at the time of submission, so it can be used later on when a record is submitted again, to determine whether that specific condition's value has changed since the last approval.

How it works: When a user resubmits a record for approval, Approvals Pro checks the current value of each condition field against its value during the last approval. If the value is unchanged, the step is skipped (the previous decision is 'remembered'). If it has changed, the step is re-evaluated and may require new approval. This helps eliminate redundant approvals and improves process efficiency.

There are two types of field change validation:

1. **Non-Numeric Values** – These include picklist fields (like Opportunity Type), text fields, or checkboxes. The system checks for an exact match between the current and previous values. Any difference will re-trigger the approval step.
2. **Numeric Values with greater than or less than type of operators** – For numeric fields, changes are evaluated with more nuance.

For example, you might configure a condition to check whether the Opportunity Amount exceeds a certain threshold, like \$10,000. An Opportunity is submitted with an Amount of \$12,000, and therefore the approval is triggered. A Sales Manager approves this step, but later on the Opportunity is Rejected or Recalled. If the value then increases (e.g. from \$12,000 to \$18,000) and the record is re-submitted, the system will re-trigger the step. But if the value decreases to a level below the previously approved level, e.g. \$11,000, while still triggering the approval condition, the approval step will be skipped the next time the Opportunity is submitted for approval.

Enabling Validate Field Changes ensures your process reacts only to meaningful updates, helping approvers focus on what actually matters.

3.5.6. Setting up Criteria Logic

Once you are done creating your Conditions, you will probably want to indicate how those conditions need to be logically combined to form the actual Entry Criteria. This can be done using 'Criteria Logic'.

NOTE:even if you have only 1 Condition on your process/path/step, you need to set up Criteria Logic.

This is how to add Criteria Logic to your Entry Criteria:

- Firstly, note that all the Conditions that you have created have automatically received a Row number:

Entry Criteria

Criteria Logic

Criteria Expression

Conditions (2)

Variables

Edit

New

NAME	Row	Type	Query Expression
CN-025926	1	Clause	appro__Cost__c > 100
CN-025927	2	Clause	appro__Brand__c = 'Salesforce'

- To set up the logic press the pencil icon on the Criteria Logic bar

Entry Criteria

Criteria Logic

Criteria Expression

Conditions (3)

Variables
Edit
New

NAME	Row	Type	Query Expression
CN-025926	1	Clause	appro__Cost__c > 100
CN-025927	2	Clause	appro__Brand__c = 'Salesforce'
CN-025928	3	Clause	appro__Amount__c < 100000

- In the Criteria Logic input field, you can specify the desired combination or Conditions by combining their Row Numbers with the required logic, e.g. as done below:

Entry Criteria

Criteria Logic
1 OR (2 AND 3)

Cancel
Save

Criteria Expression

appro__Cost__c > 100 OR (appro__Brand__c = 'Salesforce' AND appro__Amount__c < 100000)

Conditions (3)

Variables
Edit
New

NAME	Row	Type	Query Expression
CN-025926	1	Clause	appro__Cost__c > 100
CN-025927	2	Clause	appro__Brand__c = 'Salesforce'
CN-025928	3	Clause	appro__Amount__c < 100000

- Once you click 'Save' the system will check whether you included all Conditions, or whether you included Row numbers that don't exist. Saving will only work if your Criteria Logic matches the Conditions. Once you Save successfully, a Criteria Expression will be generated combining your Conditions into the Criteria Logic

Entry Criteria

Criteria Logic1 OR (2 AND 3)

Criteria Expression
appro__Cost__c > 100 OR (appro__Brand__c = 'Salesforce' AND appro__Amount__c < 100000)

Conditions (3)

Variables

Edit

New

NAME	Row	Type	Query Expression
CN-025926	1	Clause	appro__Cost__c > 100
CN-025927	2	Clause	appro__Brand__c = 'Salesforce'
CN-025928	3	Clause	appro__Amount__c < 100000

You have now successfully added Criteria Logic to your Approval Process, Approval Path or Approval Step

3.5.7. Matrices

If you want to use a Matrix as your Path or Step trigger, you need to set the Matrix up first. Once it has been set up, the Matrix can be added to the Path or Step by selecting it on the Path or Step definition.

Setting up Approval Matrices can be a bit challenging in the beginning. It therefore deserves its own chapter.

3.6. Approval Matrices

Approval Matrices are an alternative way to create conditions for Approval Steps. Matrices cannot be used as Entry Criteria for Approval Processes and/or Approval Paths.

Instead of setting up Conditions and Criteria Logic in the configuration, a database table is used to store all the conditions, thresholds, and criteria for the approval. Reasons to use Approval Matrices can be:

- your company has many different combinations of article/discount/quantity approval triggers, making it difficult to manage and update those.
- you want to delegate (part of) approval thresholds maintenance to someone that should not have access to the main approval setup (e.g. a commercial department).

Setting up an approval matrix in Approvals Pro is not straightforward so it might be wise to involve an implementation consultant when doing this. Nevertheless, it should be possible to set it up by yourself as well, if you carefully follow the explanations and instructions in this chapter.

One other important aspect is that Matrices are not part of Approval Process versioning (see chapter 4). This means that Matrices can be updated while an Approval Process is active. This means you

could have other teams (e.g. commercial management or sales support) maintain an approval matrix without needing Administrator authority on Approvals Pro.

Before you can use an Approval Matrix in an Approval Path or Step, you need to configure the Matrix upfront. This can be done by following the steps in the next paragraphs.

3.6.1. Creating the Matrix

1. Create the new Matrix by navigating to the 'Matrices' tab and clicking 'New'. This will open the 'New Matrix' popup. Fill in the fields on the screen to continue.

1. **Matrix Name** – give the Matrix a name that will be recognizable by you and by fellow admins in the future
2. **Object** – enter the API name of the Object on which the Matrix should run, i.e. the object that will contain the records to approve. E.g. Opportunity.
3. **Child Object** – optionally, enter the API name of the Child Object on which the Matrix will be applicable. E.g. Opportunity Line Item.
4. **Child Link Field** – if you select a child object, you also need to specify the field on the Child Object that contains the reference (Lookup or Master Detail) to the parent object selected in #2. E.g. for Opportunity Line Item this will be OpportunityId. For multi-level relationships this could be something like Parent_Object__r.GrandParentId__c

3.6.2. Matrix Line Fields

Each Matrix definition can have a different set of mapped fields (although the actual matrix data will always be stored in the 'Matrix Lines' object. The Matrix fields are actual custom fields that need to be created on the Matrix Line object. Let's create 2 fields there. As an example we will assume that we are creating a Matrix for approving the Opportunity object.

1. Go to **Setup** and select **Object Manager**
2. Select the **Matrix Line** object (API name appro__Matrix_Line__c)
3. Under **Fields & Relationships**, create a new Number field called 'Max Amount'
4. Also create a new Text field called 'Product Code'

3.6.3. Matrix Fields

The next step is to create the mapping between the Matrix content (Matrix Lines) and the object to be approved.

1. Go to the Matrix record you created at the beginning of this module
2. Click on the **Related** tab on the Matrix detail page
3. Let's first create the Matrix Field mapping for the 'Max Amount' field.
 1. Click on **New** next to Matrix Fields related list.
 2. In **Matrix Field Name** enter the API fieldname of the first field on the Matrix Line object (in this 'Max_Amount__c')
 3. In **Map To** enter the API fieldname of the field on the object to be approved, or the child object defined in the Matrix definition. In this case 'Max Amount' should be compared against the 'Amount' field on Opportunity level. So we enter 'Amount' here.
 4. In **Map Relation** we select 'Parent' because we map to the parent record (Opportunity)
 5. As **Operator** we select 'Greater' because the Approval should run if the Amount on Opportunity is greater than the Max_Amount__c on the Matrix Line.
 6. Click **Save**
4. The second step will be to create the Matrix Field mapping for the 'ProductCode' field.
 1. Click on 'New' next to the Matrix Fields related list.
 2. In **Matrix Field Name** enter the API fieldname of the first field on the Matrix Line object (in this 'Product_Code__c')
 3. In **Map To** enter the API fieldname of the field on the object to be approved, or the child object defined in the Matrix definition. In this case 'Product Code' should be compared against the 'ProductCode' field on OpportunityLineitem level. So we enter 'ProductCode' here.
 4. In **Map Relation** we select 'Child' because we map to the child record (OpportunityLineitem)
 5. As **Operator** we select 'Match' because the Approval should only run if the ProductCode on OpportunityLineitem is equal to the Product_Code__c on the Matrix Line.
 6. Click **Save**

3.6.4. Matrix Lines

The last step is to put the actual data in the Matrix, which enables the Approvals module to compare the record to be approved against the data in the Matrix, thus determining whether a record (in this case an Opportunity) requires an approval or not.

1. Go to the Matrix record you created at the beginning of this module
2. Click on the 'Related' tab on the Matrix detail page
3. Click on 'New' next to the Matrix Lines related list. An edit screen will pop up showing the 2 fields you just created on the Matrix Line object
4. In **SEQ** you have the option of specifying a sequence for matrix lines to be picked up. I.e. if 2 matrix lines both match the conditions, only the line with the first sequence number will be picked up and used to match.

5. In the field **ProductCode** specify the ProductCode for which you want to specify the max Opportunity Amount
6. In the field **Max Amount**, specify the max opportunity amount for the ProductCode specified in the Product Code field.
7. Press **Save**
8. Repeat the 3 previous steps for any additional product code for which you want to specify a maximum amount.

The last step for implementing this matrix approval is to select the Matrix in an Approval Step. To do so, go to the Approval Step and select the Matrix in the section "Matrix Based Condition". No further mappings must be made, as that's all arranged in the Matrix definition.

4. Enhanced Configuration

In this chapter, we will cover some enhanced configuration options that allow you to further customize and enhance Approvals Pro. As there are more enhanced subjects, we encourage you to verify your ideas with the Approvals Pro team to ensure that you are implementing the most effective and efficient solution.

4.1. Adding Fields to Approve, Reject, and Reassign Popups

Customizing the Approve, Reject, and Reassign popups in ApprovalsPro allows organizations to capture essential details, ensuring a structured and well-documented approval process. To achieve

this, users must create a new Field Set by navigating to the Field Set section on the Approval object on the Salesforce Setup. From there, click New, and enter the required details. The Field Set Name must be exactly one of the following:

- ApprovalPopupFields for approval popups
- RejectionPopupFields for rejection popups
- ReassignPopupFields for reassign popups.

The screenshot shows the Salesforce Setup interface for the 'Approval Request' object. The left sidebar lists various setup options, with 'Field Sets' highlighted. The main content area is titled 'New Field Set' and contains a 'Field Set Edit' form. The form has a 'Save' button and a 'Cancel' button. The 'Enter Field Set information' section includes fields for 'Field Set Label', 'Field Set Name', and 'Namespace Prefix'. A large text area labeled 'Where is this used?' is also present. A red error message 'Required Information' is visible at the top right of the form.

The Field Set Label can be customized to match the organization's needs, but the exactly matching Field Set Name should be used to ensure the fields appear in the correct popups.

After setting up the Field Set, whenever users select Approve, Reject, or Reassign, they can fill in the relevant fields, including selecting a Reason for Rejection (if rejecting) or adding remarks and other necessary details before submitting. Once the action is completed, the selected information will be recorded on the corresponding Approval records.

The screenshot shows a Salesforce interface with a 'Rejecting the record' dialog box. The dialog box has a title bar with a close button. It contains a 'Reason for rejection' dropdown menu with 'Discount too high' selected. Below this is a text area labeled 'Remarks for the approver(s)'. At the bottom of the dialog are 'Cancel' and 'Reject' buttons. The background shows a list of approval records with columns for 'Approval ...', 'Approval ...', and 'App...'. The 'Current Record' is 'Test Opportunity 3'.

4.2. Relationship between Approval Request and your object

It can have multiple benefits to create a relationship between Approval Pro's Approval Request object and your object to be approved:

- Enhanced reporting and KPI possibilities
- Ability to show Approval Request related list on your object page
- Ability to show object fields on your home page component

This paragraph describes the steps to set up a relationship between Approval Request and any other object. Note that if you have multiple objects being approved by Approvals Pro, you can set up multiple (different) lookup relationships.

4.2.1. Step 1: Create a lookup field on Approval Request

Create a standard Lookup field on the Approval Request object, looking up to the object that you approve.

4.2.2. Step 2: Create a Flow to populate the lookup field

Create a new record-triggered Flow on the Approval Request object

- The Flow only needs to run when a record is created
- The Flow should be set to Optimized for 'Fast Field Updates'
- Add 1 'Assignment' action to the Flow. The assignment should populate the Lookup field on the Approval Request object with the value from the RID (record Id) field on the Approval Request
- Don't forget to activate the Flow
- Now any new Approval Request will have the lookup field populated

Note that if you want to create lookups to multiple objects, you will need to build in some logic to determine the right lookup field to populate. This could be done based on the 'appro__Record_Object_Label__c' field on Approval Request. This field contains the Label of the object that is being approved, e.g. 'Opportunity' or 'Product Basket'.

Note that the same behaviour can also be accomplished using an Apex trigger. You are free to decide which option fits your setup best.

4.3. Invoke Approvals Pro action by Automation

4.3.1. Submit for Approval

In some cases you might want to automatically submit your records for approval when they reach a certain stage or when a certain condition is met. Approvals Pro has built-in invocable actions for submitting your records for approval.

In this chapter we describe the steps to automatically submit your records for approval.

1. Create a record-triggered flow on the Object that you are going to approve, with the following settings:
 - 1.1. Triggered when a record is updated
 - 1.2. Trigger when all conditions are met
 - 1.3. Conditions: the triggering conditions, e.g. 'Launch Pricing Approval = TRUE'
 - 1.4. Optimize the flow for: Actions and Related records
2. Add the apex action called 'Submit for Approval' (the one with subtitle 'apex-apro__InvocableSubmitForApproval'). The parameters for the Apex action are:
 - 2.1. Record id -> {!record.Id}
 - 2.2. Approval Process Name -> the Name of the approval process you want to trigger
3. The apex action returns a response containing the Success indicator, the record Id and an Error Message (if any). These responses can be used in further processing, e.g. showing them on a Flow screen or using them to notify an administrator.
4. That's it. Any record meeting the trigger conditions will now be submitted for approval. Note that if the record does not meet the entry criteria of the Approval Process, nothing will be triggered.

Note that the same behaviour can also be accomplished using an Apex trigger. You are free to decide which option fits your setup best.

4.3.2. Approve

In some cases you might want to automatically Approve your approvals when a certain condition is met. Approvals Pro has built-in invocable actions for approving your approvals.

In this chapter we describe the steps to automatically approve your approvals.

1. Create a record-triggered flow on the Approval Object, with the following settings:
 - 1.1. Triggered when a record is created or updated
 - 1.2. Trigger when all conditions are met
 - 1.3. Conditions: the triggering conditions, e.g. 'Approval Step Name = "Quick Approval"' AND 'Automatically Approve = TRUE'
 - 1.4. Trigger only when a record is updating to meet the condition requirements
 - 1.5. Optimize the flow for: Actions and Related Records
2. Create a new Resource of type Variable, with Data Type Text that allows multiple values (collection). This is needed because the Action also supports approving multiple Approvals at once.
3. Create a step to add the current Approval record's Id to the collection

4. Add the apex action called 'Approve Approvals' (the one with subtitle 'apex-apro__InvocableApproveApproval'). The parameters for the Apex action are:
 - 4.1. Approval Ids -> this is a collection of record IDs of Approval records). In order to populate this for the record-triggered flow, Record id -> {!record.Id}
 - 4.2. Approver User -> the Id of the User to be logged as the approving User. Could be e.g. the Running User for the Flow.
 - 4.3. Message -> the approval message. Could be e.g. 'Auto-Approved'.
 - 4.4. PIWI List -> this is an optional parameter for when you also want to incorporate Standard Salesforce Approvals in this Flow. PIWI stands for Process Instance Work Items. You can provide a set of PIWI Id's that need to be approved.
5. The apex action returns a response containing the Success indicator, the record Id and an Error Message (if any). These responses can be used in further processing, e.g. showing them on a Flow screen or using them to notify an administrator.
6. That's it. Any record meeting the trigger conditions will now be approved.

Note that the same behaviour can also be accomplished using an Apex trigger. You are free to decide which option fits your setup best.

NOTE: do not try to modify the Status of an Approval record directly. This will break the integrity of the system, possibly resulting in unexpected outcomes.

4.3.2. Reassign

In some cases you might want to automatically Reassign your approvals when a certain condition is met. Approvals Pro has built-in invocable actions for reassigning your approvals.

In this chapter we describe the steps to automatically reassign your approvals.

1. Create a record-triggered flow on the Approval Object, with the following settings:
 - 1.1. Triggered when a record is created or updated
 - 1.2. Trigger when all conditions are met
 - 1.3. Conditions: the triggering conditions, e.g. 'Approval Step Name = "Quick Approval"' AND 'Automatically Reassign = TRUE'
 - 1.4. Trigger only when a record is updated to meet the condition requirements
 - 1.5. Optimize the flow for: Actions and Related Records
2. Create a new Resource of type Variable, with Data Type Text that allows multiple values (collection). This is needed because the Action also supports reassigning multiple Approvals at once.
3. Create a step to add the current Approval record's Id to the collection
4. Add the apex action called 'Reassign Approvals' (the one with subtitle 'apex-apro__InvocableReassignApproval'). The parameters for the Apex action are:
 - 4.1. Approval Ids -> this is a collection of record IDs of Approval records). In order to populate this for the record-triggered flow, Record id -> {!record.Id}
 - 4.2.
 - 4.3. Message -> the approval message. Could be e.g. 'Auto-Reassigned'.

- 4.4. New Approver User or Group Id -> the Id of the User or Group to which the approval should be reassigned.
5. The apex action returns a response containing the Success indicator, the record Ids and an Error Message (if any). These responses can be used in further processing, e.g. showing them on a Flow screen or using them to notify an administrator.
6. That's it. Any approval record meeting the trigger conditions will now be reassigned.

Note that the same behaviour can also be accomplished using an Apex trigger. You are free to decide which option fits your setup best.

NOTE: do not try to modify the Approver User of an Approval record directly. This will break the integrity of the system, possibly resulting in unexpected outcomes.

4.3.3. Recall

In some cases you might want to automatically invoke a recall for a pending approval. E.g. when implementing your own Action Button to recall approvals, or if any change is made to a Quote or Opportunity record. Approvals Pro has built-in invocable actions for recalling your pending approvals.

In this chapter we describe the steps to automatically recall your records.

5. Create a record-triggered flow on the Object that you are going to approve, with the following settings:
 - 5.1. Triggered when a record is updated
 - 5.2. Trigger when all conditions are met
 - 5.3. Conditions: the triggering conditions, e.g. 'OpportunityChange = TRUE AND Approval Status = 'Pending''
 - 5.4. Optimize the flow for: Actions and Related records
6. Add the apex action called 'Recall Approvals' (the one with subtitle 'apex-appro__InvocableRecallApproval'). The parameters for the Apex action are:
 - 6.1. Record id -> {!record.Id} of the record to be recalled
 - 6.2. Approval Process Id (*not used*)
7. The apex action returns a response containing the Success indicator, the record Id and an Error Message (if any). These responses can be used in further processing, e.g. showing them on a Flow screen or using them to notify an administrator.
8. That's it. Any record meeting the trigger conditions will now be recalled.

Note that the same behaviour can also be accomplished using an Apex trigger. You are free to decide which option fits your setup best.

4.4. Assign Additional Permissions

Approvals Pro comes with a number of standard Permission Sets, as discussed in paragraph 1.7. Next to these Permission Sets, there are a few Custom Permissions that you might want to consider adding to particular users/profiles.

The following diagram shows the standard Custom Permission assignment that is delivered in the Managed Package. Any additional permissions need to be either built into a Custom Permission Set or directly assigned to the user's Profile.

Custom Permission	ApprovalsPro Admin User	ApprovalsPro Approver User	ApprovalsPro Submitter User
Approve All Approvals at once for 1 Approval Request			
Approve Any Pending Approval	X		
Recall Any Approval Request	X		
Show home page component		X	
Submit record for approval	X		X
View process references as links	X		

Here's an explanation of what each Custom Permission does:

1. **Approve All Approvals at once for 1 Approval Request** - on the Approval screen, you will have a button by which you can approve all pending approvals for all users for the corresponding Approval Request.
2. **Approve Any Pending Approval** - on the Approval screen, you will have a button by which you can approve all pending approvals for that Approval's user for the corresponding Approval Request.
3. **Recall Any Approval Request** - allows you to not only recall your own approval requests but any other user's Approval Requests as well
4. **Show home page component** - this does not actually modify Approval Pro's behaviour but it can be used by you as an admin to influence the visibility of the Home Page component on your Home Page configuration.
5. **Submit record for approval** - allows you to submit records for approval, i.e. the 'Submit' button is active on the Record Page component if any record is meeting the entry criteria for an Approval Process.
6. **View process references as links** - anywhere on Approvals Pro where a process component is referenced (e.g. Approval Process, Approval Step, Approver, etc, a hyperlink will be shown so

you can immediately click into that process definition record. Standard submitter/approver users should not have this activated as this will result in non-working hyperlinks.

7. Mobile Setup

Approvals Pro is ready to be used on the road, to make your team even more efficient. To enable users to approve using the Salesforce Mobile app, follow these steps:

- 7.1.1. Navigate to Setup -> Mobile Apps -> Salesforce Navigation
- 7.1.2. Add the 'Approval Page' Navigation Menu Item to the list of Selected Navigation Menu Items
- 7.1.3. Press 'Save'
- 7.1.4. That's it! Anyone using the Salesforce Mobile App connected to your org will now be able to Approve and Reject from their Mobile Phone!

8. Maintenance

8.1. Approval Process Versioning

Whenever an approval process has been deployed and any approvals have been triggered, it is no longer allowed to make changes to that approval process. The reason for this is that it would make it much more difficult to audit approvals and to trace back any historic approvals.

If you need to make changes to an actively used Approval Process, you will need to create a new version of the approval process and (once done with making your changes) activate the new version. This chapter takes you through the steps to accomplish this.

Note that the new version will be a full clone of the Approval Process, *except* for any Matrices. Matrices are the only component of an Approval Process that can be updated while the Approval Process is active. The cloned copy of the Approval Process will keep referring to the same Matrix as the original process.

Here are the steps to migrate your approval process to a different environment.

1. Open your Approval Process page (the edit wizard will pop up) and click the 'Create New Version' button:

Approval Process **testProcess** Object **appro_BRecord_c** #Paths **1** #Steps **1**

Create New Version Delete Current Version Deactivate Current Version Edit Process Details

Approval Paths (1) [+ New](#)

NAME	Depends On	#Steps
testPath2		1

Entry Criteria

Criteria Logic

Criteria Expression

Conditions (0) [Variables](#) [Edit](#) [+ New](#)

NAME	Row	Type	Query Expression
------	-----	------	------------------

- When the confirmation pop-up appears, press 'Create'

Close (X)

Create Version

Are you sure you want to create a new version of this process?

[Cancel](#) [Create](#)

- The approval process will be cloned, and as soon as that's done, the page will be refreshed and will show the new version:

Approval Process **testProcess v2** Object **appro_BRecord_c** #Paths **1** #Steps **1**

[Create New Version](#) [Delete Current Version](#) [Activate Current Version](#) [Edit Process Details](#)

Approval Paths (1) [+ New](#)

NAME	Depends On	#Steps
testPath2		1

Entry Criteria

Criteria Logic

Criteria Expression

Conditions (0) [Variables](#) [Edit](#) [+ New](#)

NAME	Row	Type	Query Expression
------	-----	------	------------------

- On this new version, you can make all the changes you want to make. Note that none of the submitted records will be using the new version until you activate. If you want to test your new version, we advise you to create it in a sandbox first and activate it there.
- Once you are done making the changes, press 'Activate Current Version' and confirm on the pop-up. From that moment on, your new version will be the active one and the previous version will be automatically deactivated.

8.2. Deploying your Approval Process between environments

For deployments between different Salesforce environments, Approvals Pro has a custom import/export functionality. Here are the steps to follow to deploy your approval process from sandbox to sandbox, or from sandbox to production.

To copy an Approval Process from one environment to another, use the Import/Export tab located on the Approvals Pro app. This feature allows you to export an entire Approval Process setup from your source environment and import it into the target environment with just a few clicks.

Start by clicking the Export tab. Click the Export button to download a file containing the full configuration of that process.

Next, go to the target environment where you want to import this process and click the Import tab. Use the Upload Files button to select the exported file. The system will run validations automatically.

This makes it easy to transfer complex approval logic between environments without having to rebuild everything manually.