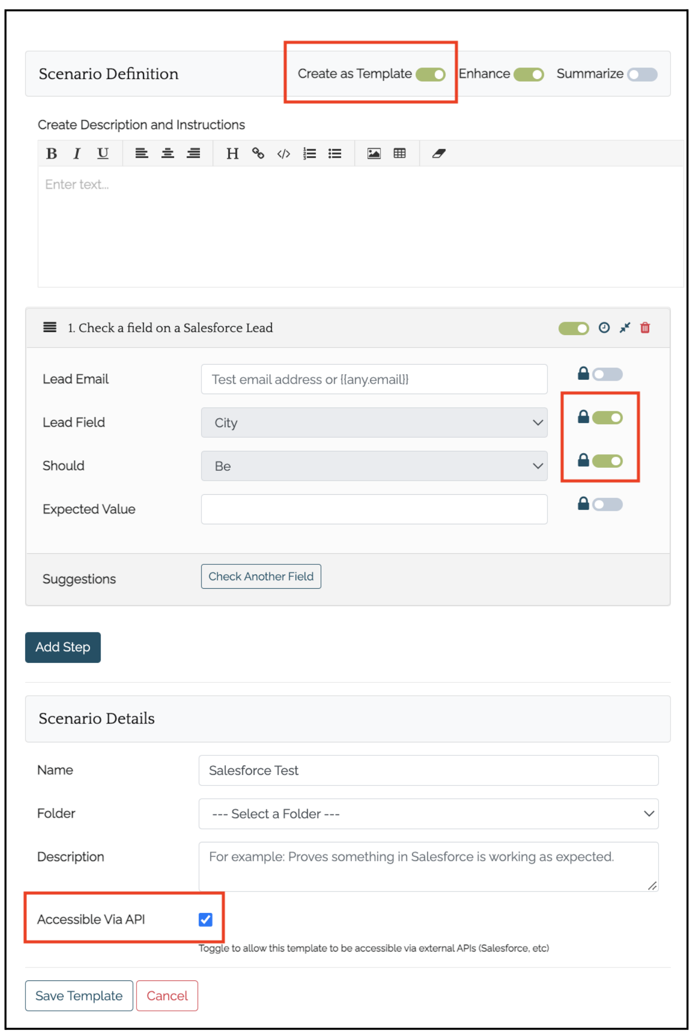
What is Salesforce Real-Time Monitoring (RTM)?

Salesforce Real-time Monitoring allows teams to test and monitor the data in Salesforce. Using SF RTM, teams can create and run tests in Stack Moxie that are triggered automatically based on Insert/Update events to any SFDC object you choose. Customize the conditions that need to be met for the test to fire, the max amount of tests that should be run per day, and what information from the trigger object you want to pass to the Stack Moxie test.

Stack Moxie Set Up

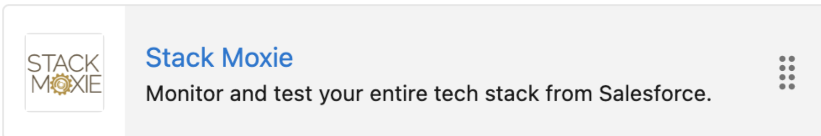
Before configuring Salesforce Real-time Monitoring, you will need to configure Stack Moxie first.

- Create a **template** that you want to use in SF, which involves:
  - Locking all constant fields (fields you don't want to be set dynamically in SF)
  - Checking the 'Accessible via API' checkbox
  - The screenshot below shows an **example** of a properly set up template

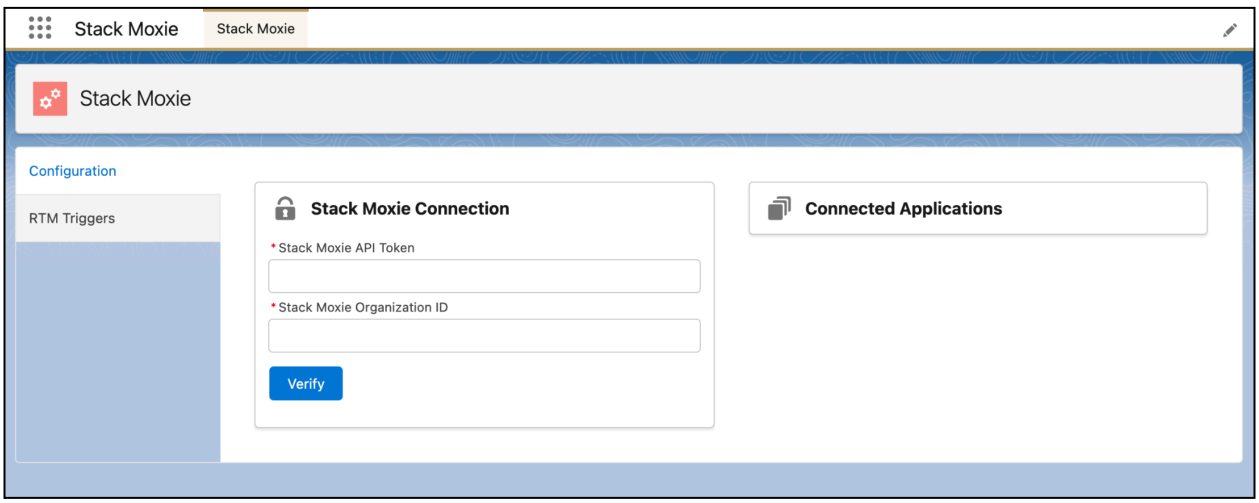


Salesforce Set Up

Once you install the Stack Moxie managed package from the Salesforce AppExchange, navigate to the app launcher, and open it.



Fill out your Stack Moxie API token and Org ID in the 'Configuration tab' as shown below. [Refer to this article for help generating an API token](), and help finding your Org ID.



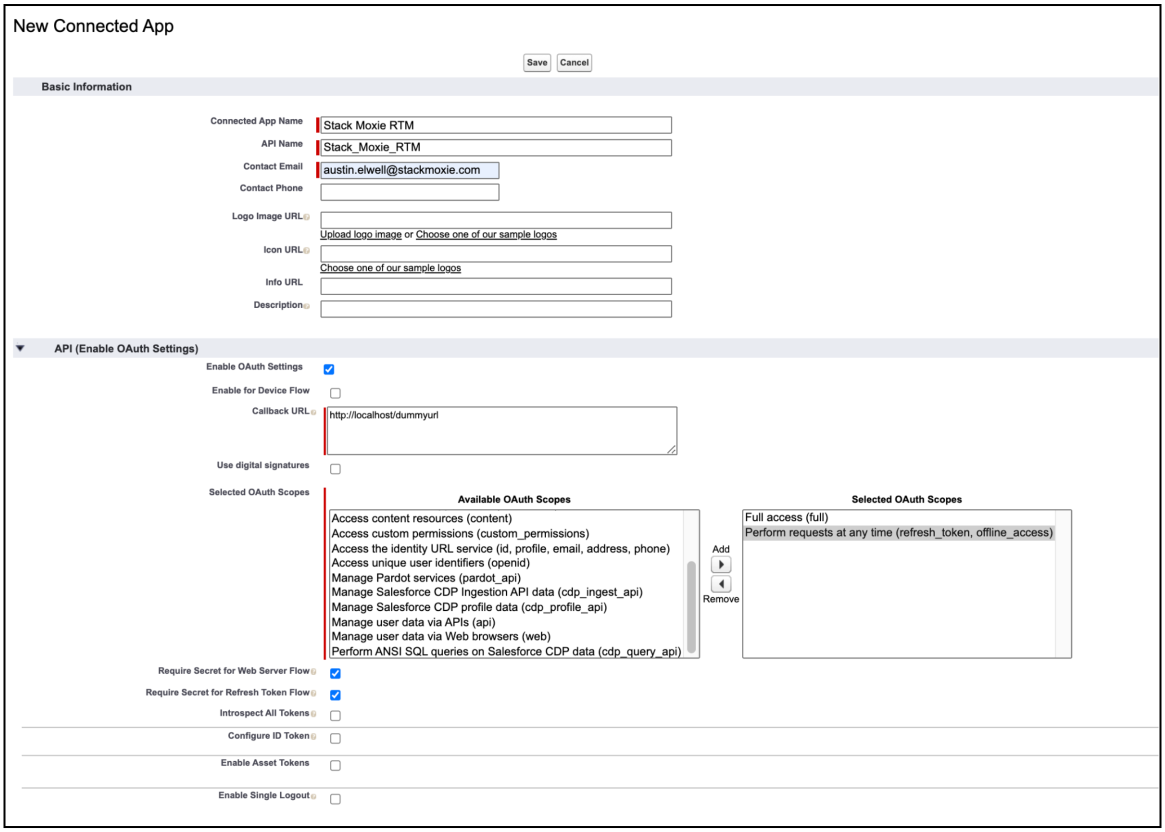
For RTM specifically, there are a few more SF items you need to create in order to finalize the connection. We will walk through each of these in detail.

- Connected App
- Auth. Provider
- Named Credentials

Create a Salesforce Connected App

- In Salesforce, Navigate to Setup (gear Icon on top right)
- In the Quick Find Box search for `App Manager` and open it, then click `New Connected App`
- Fill in the Connected App name, we suggest using `Stack Moxie RTM`, as well as your email.
- Enable OAuth Settings, and provide a dummy Callback URL for the time being, we will update this later.
- Grant the `Full Access` and `Perform Requests at any time` scopes

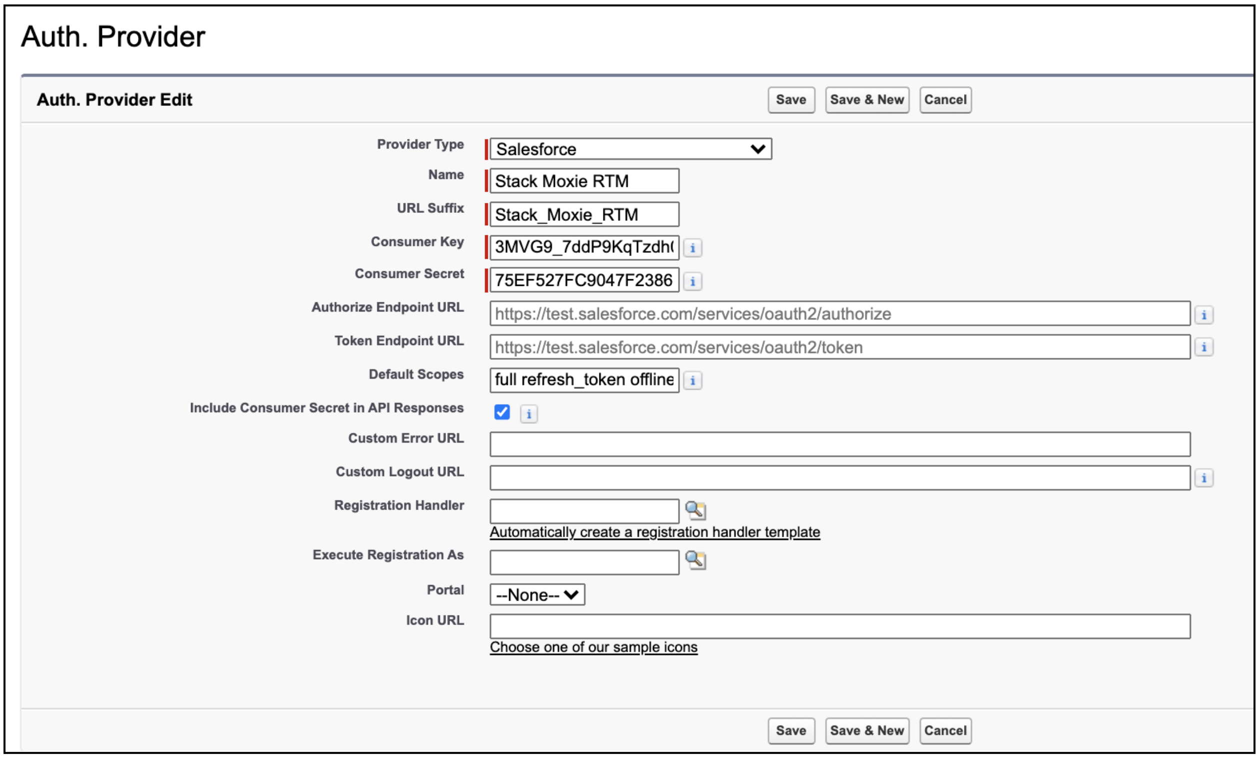
- It should look like this:



- Save the connected app. Now copy the Consumer Key and Consumer Secret. We will need these in the next step to create the Auth Provider.

Auth. Provider

- In Salesforce, Navigate to Setup
- In the Quick Find Box search for `Auth. Providers` and open it, then click `New`
- Choose Salesforce as the Provider Type
- Enter a name and URL suffix, again we suggest `Stack Moxie RTM`
- Paste in the Consumer Key and Consumer Secret from the Connected App
- Enter `full refresh_token offline_access` in the Default Scopes input



Auth. Provider

Auth. Provider Edit   Save   Save & New   Cancel

Provider Type	Salesforce
Name	Stack Moxie RTM
URL Suffix	Stack_Moxie_RTM
Consumer Key	3MVG9_7ddP9KqTzdh(
Consumer Secret	75EF527FC9047F2386
Authorize Endpoint URL	https://test.salesforce.com/services/oauth2/authorize
Token Endpoint URL	https://test.salesforce.com/services/oauth2/token
Default Scopes	full refresh_token offline
Include Consumer Secret in API Responses	☑
Custom Error URL	
Custom Logout URL	
Registration Handler	Automatically create a registration handler template
Execute Registration As	
Portal	--None--
Icon URL	Choose one of our sample icons

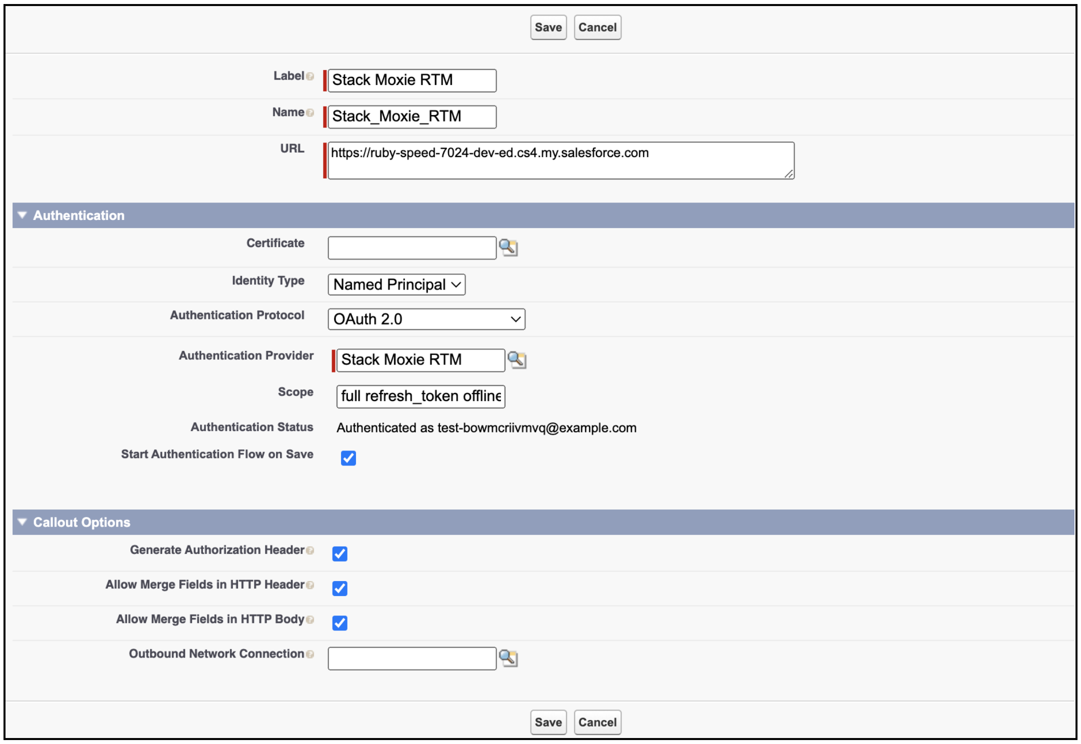
Save   Save & New   Cancel

- It should look like this:
- Save the Auth Provider, and you should see several URLs under `Salesforce Configuration`
- Copy the Callback URL
- Go back to the App Manager, and open the `edit` page for the Connected App we just created. Paste the Callback URL where we put the dummy URL earlier, and save.

Named Credentials

- In Salesforce, Navigate to Setup
- In the Quick Find Box search for `Named Credentials` and open it, then click `New Named Credential`
- Enter 'Stack Moxie RTM' as the label, and `Stack_Moxie_RTM` as the name (this time it is not merely a preference, it must be the same as the Auth. Provider credentials configured)
- Enter the URL of your SF instance (e.g. `na1.salesforce.com` or `mycompany.my.salesforce.com`)
- **If the URL ends in `.lightning.force.com`, replace it with `cs4.my.salesforce.com` or just `my.salesforce.com`. This is a common source of problems, so if you have trouble creating RTM triggers please revisit this. You may need to try both of the above URL suffixes.**
- Set the Identity type as Named Principal
- Set the Authentication Protocol as OAuth 2.0

- Click the search bar next to the Authentication Provider input box, and you should see the Stack Moxie RTM provider we created earlier.
- Enter `full refresh_token offline_access` into the Scope input
- Select the checkbox for 'Start Authentication Flow on Save'
- Select all 3 checkboxes in the callout options section.
- Save and follow the login flow using your credentials**



How to use SF RTM

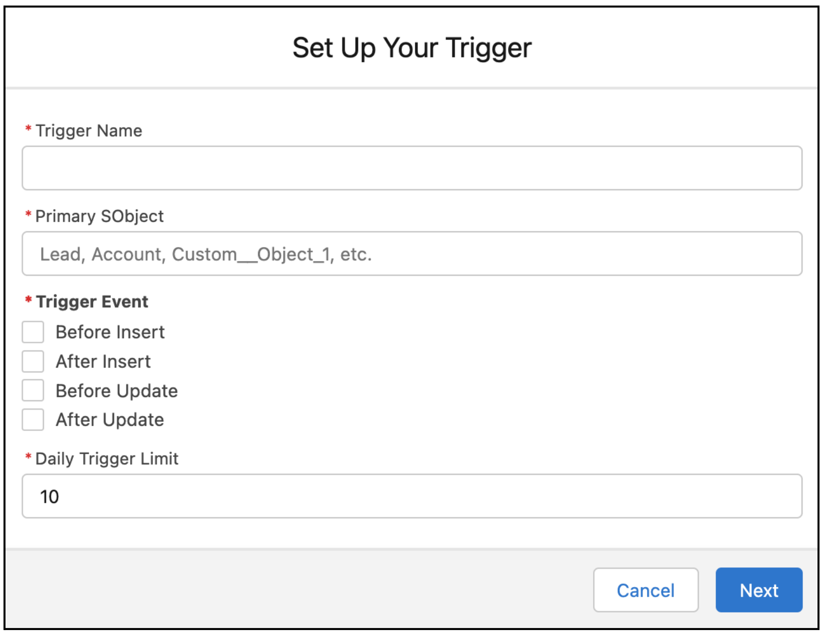
All of the following takes place within Salesforce, in the Stack Moxie managed package.

In order to set up your first SF RTM trigger, navigate to the 'RTM Triggers' tab in the Stack Moxie managed package, and click the 'Create a New Trigger' button. This will open a 3 page modal which will allow you to configure all your trigger's specific requirements.

Modal Page 1

- Set the 'Trigger Name' is whatever you choose, with all Stack Moxie Runs that originate from this trigger being named with this Trigger Name. Spaces and all non-alphanumeric characters will be removed automatically, and it cannot exceed 40 characters.

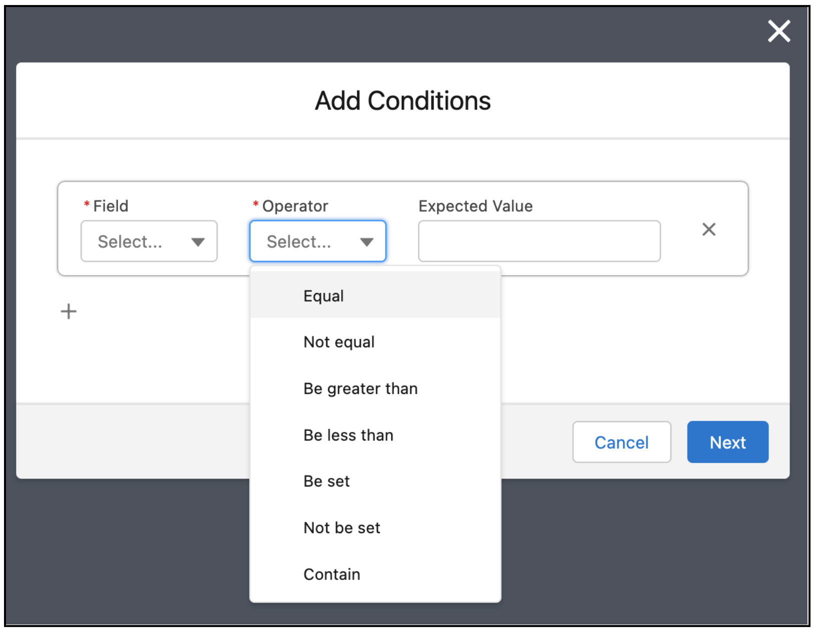
- ‘Primary SObject’ is the object you want to listen for events on. It can be any standard or custom SF object.
- ‘Trigger Event’ is the event you want to activate the trigger. Insert is the creation of a new record, Update is changing a data value on an existing record. Additionally choose whether the event is before or after being saved. You can select one or multiple trigger events.
- ‘Daily Trigger Limit’ is the amount of Stack Moxie tests that can be triggered per day. If it is set to 10 for instance, only the first 10 events that meet all trigger conditions will initiate a Stack Moxie test run. This is a safety measure to ensure that any data migrations or bulk actions do not use all of your Stack Moxie runs for the month.



Modal Page 2

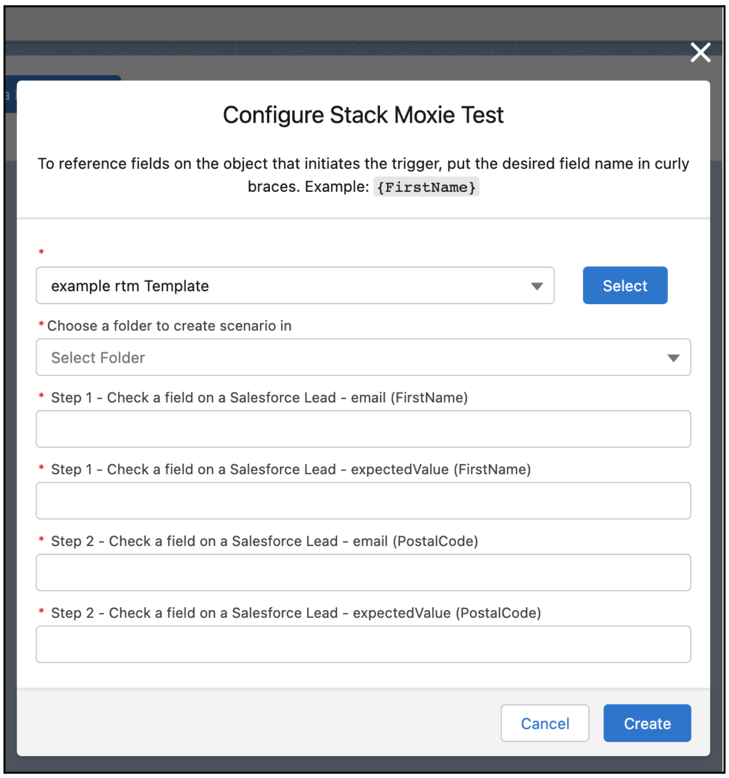
- This is where you can add conditions that determine whether a test should be created for a particular object. You can delete them with the ‘x’ on the right, and add more with the ‘+’ on the bottom left. Keep in mind that if you don’t have any conditions, all objects triggered by the event chosen on page 1 will create Stack Moxie Tests.
- ‘Field’ is a dropdown containing all the fields on the SObject you chose on page 1.
- ‘Operator’ is a dropdown that lets you choose how to match, similar to Stack Moxie tests. These include operators like Equal, Contain, Not Set. The current options are shown in the screenshot below.
- ‘Expected Value’ is a standard input box for you to enter the value that should be matched. Right now there is no type checking, so you are not prevented from entering nonsensical conditions, they will simply fail to be met if there is an issue.

And if you choose an operator such as 'Be set' which does not require an expected value, you can simply leave this field blank.
- Examples of conditions:
    - 'AnnualRevenue', 'Be greater than','10000'
    - 'City', 'Equals,' 'Boston'
    - 'FirstName', 'BeSet'



Modal Page 3
- This is where you configure the Stack Moxie test that you will run from the Salesforce real-time trigger.
- First select the template you want to use. If you can't find a template, make sure you checked the 'Accessible via API' box when creating/editing it in Stack Moxie. **Press Select** to confirm the template.
- After selecting, you will choose the Stack Moxie folder test runs should go in, as well as fill out the inputs of all unlocked fields of that template.
- To have full clarity, open the Stack Moxie template for this step. Because of the varying nature of the Stack Moxie inputs, some do not have a detailed label, so in order to give you as much context as possible, we have structured the input labels to identify the following:
    - Index of the step within the template - step name - input name (field name if applicable)
- Use curly braces with a field name in order to inform the trigger that it should substitute in the object's value for that field when creating the test. Always use the 'Field Name/API Name', not the 'Field Label'. For instance, if I want to use the first name from a Lead within the stack moxie test, I can provide '{FirstName}' in the input,

and when it gets triggered it will use the current lead's email. Before saving, we will validate that all curly braces have a valid field between them.
- Click 'Create' and wait for the RTM Trigger to be created. The first time you create a trigger for a certain object it will take longer than any subsequent triggers on the same object. Depending on the current Salesforce system usage, this could take up to two minutes to complete.
- That's it, the trigger is now active!



Troubleshooting

- 'Something went wrong' Error
    - If the error message says 'Please try again', and you have tried multiple times, please revisit the Named Credential you created, and attempt to re-authenticate, making sure the instance URL has one of the acceptable suffixes. If that doesn't work, contact us for additional help.
    - If the error message says 'Your RTM record was saved, but the underlying apex trigger is taking a long time to deploy. Check deployment status for more information', then follow the steps below.
        - Navigate to Setup
        - In the Quick Find Box search for `Deployment Status` and open it.
        - If the test is still running, wait for it to finish, it may take several minutes.

        - If you see the most recent deployment failed, you can click 'View Details' to learn more about what went wrong.
- Unsupported Use Cases
    - We support most standard and custom objects, there is one exception that we currently do not support, as described below.
        - If an object needs to have one of two different fields provided, ***but doesn't strictly 'require' either one***, we are not able to create a trigger.
        - For instance, an object that will throw an error if you don't provide either a related Lead ID or Contact ID, but neither are marked as required.
        - Stack Moxie has manually coded an exception for Campaign Member to allow real-time monitoring of campaign members which require a Lead or Contact ID.