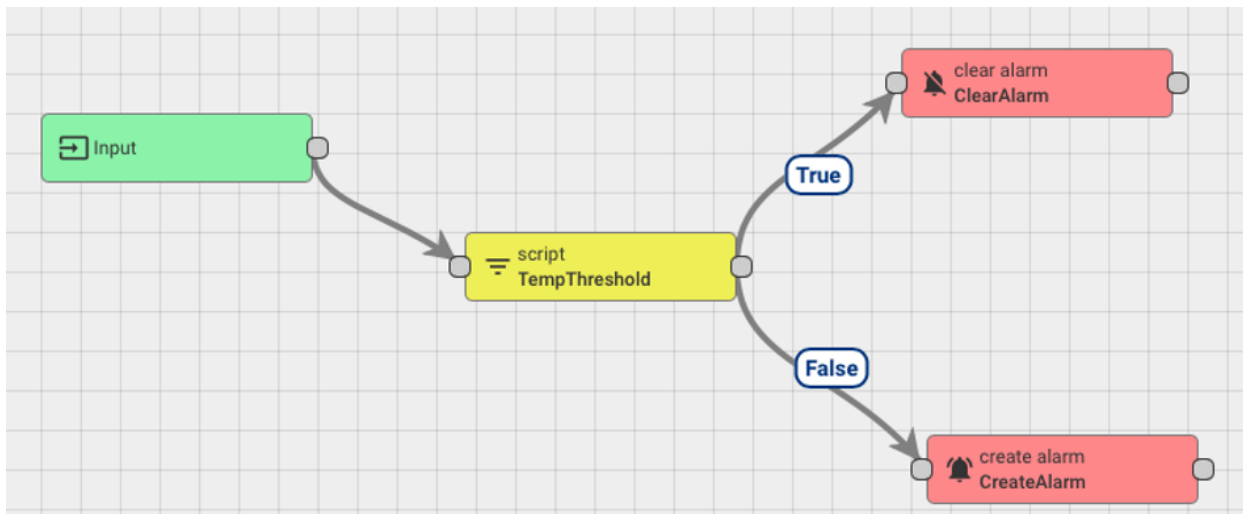


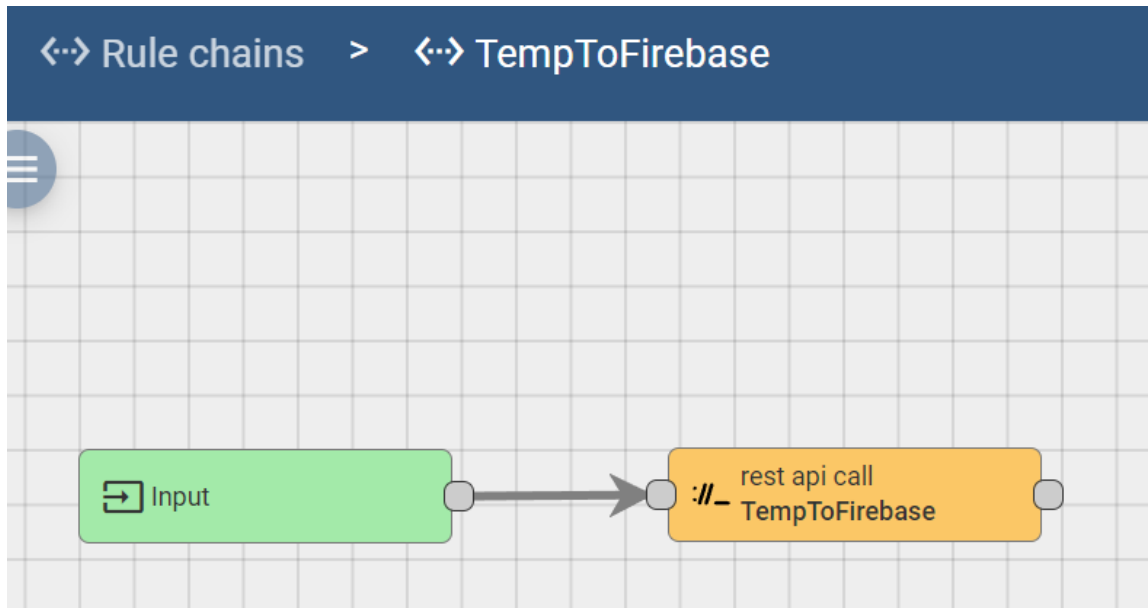
1. Navigate to Firebase. In the `module24Project` Realtime database, create a new field titled `alarms` and initialize the corresponding field to zero. Provide a screenshot to show that you created the `alarm` field inside your Realtime database and initialized it to zero.



2. Navigate to the ThingsBoard home page. Create a new rule chain titled “CreateAndClearAlarms” by following the steps shown in [Mini-Lesson 24.5](#). Provide a screenshot to show that you created the `CreateAndClearAlarms` rule chain with all of the necessary components.



3. Create another rule chain and name it “TempToFirebase”. Provide a screenshot to show that you created the `TempToFirebase` rule chain with all of the necessary components.



4. Open the TempToFirebase rule chain. Add a “rest API call” *node* and name it “TempToFirebase”. Replace the default link with the following link:  
<https://module24project-default-rtdb.firebaseio.com/temperature.json>  
Select “Add” to add the TempToFirebase *node* to your Rule Engine. Connect the Input and TempToFirebase *nodes*.  
Provide two screenshots. The first screenshot should show that you added the TempToFirebase *node* to your Rule Engine correctly. The second screenshot should show that you connected the Input and TempToFirebase *nodes*.

## TempToFirebase

External - rest api call

Details Events Help

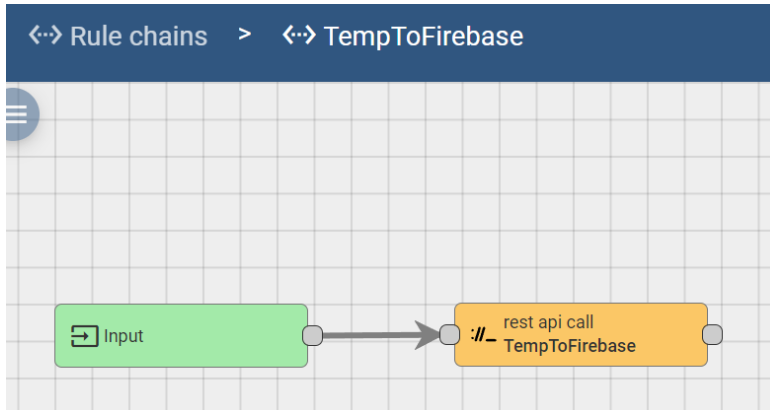
Name\*  
TempToFirebase

Endpoint URL pattern\*  
<https://module24project-b73c0-default-rtdb.firebaseio.com/temperature.json>

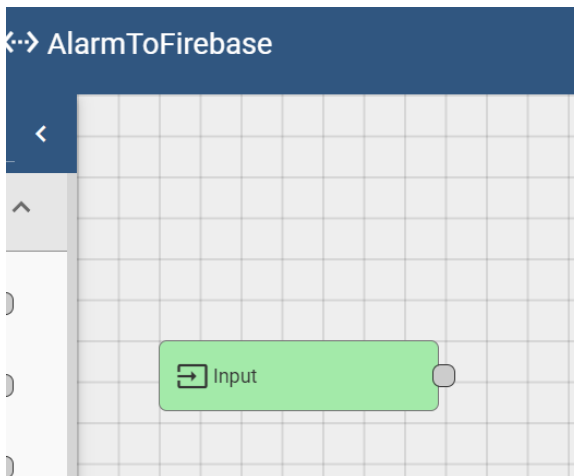
Hint: use `${metadataKey}` for value from metadata, `$(messageKey)` for value from message body

Request method\*  
POST

Debug mode



5. Create another rule chain and name it "*AlarmToFirebase*". Provide a screenshot to show that you created the *AlarmToFirebase* rule chain with all of the necessary components.



6. Open the *AlarmToFirebase* rule chain. Add a "rest API call" *node* and name it "*AlarmToFirebase*". Replace the default link with the following link:  
<https://module24project-default-rtdb.firebaseio.com/alarm.json>  
Select "Add" to add the *AlarmToFirebase* *node* to your Rule Engine. Connect the Input and *AlarmToFirebase* *nodes*.  
Provide two screenshots. The first screenshot should show that you added the *AlarmToFirebase* *node* to your Rule Engine correctly. The second screenshot should show that you connected the Input and *AlarmToFirebase* *nodes*.

# AlarmToFirebase

External - rest api call

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✓

×

Details

Events

Help

Name\*

AlarmToFirebase

—

 Debug mode

Endpoint URL pattern\*

https://module24project-b73c0-default-rtdb.firebaseio.com/alarm.json

Hint: use `${metadataKey}` for value from metadata, `$(messageKey)` for value from message body

Request method\*

POST

▼

Input

rest api call  
AlarmToFirebase

- Open the `CreateAndClearAlarms` rule chain that you created in Step 2. Add a “rule chain” *node*. Title this *node* “`AlarmToFirebase`” and select `AlarmToFirebase` as the rule chain. Select “Add” to add the `AlarmToFirebase` *node* to your Rule Engine.  
Provide a screenshot to show that you added the `AlarmToFirebase` *node* to your Rule Engine correctly.

AlarmToFirebase

Flow - rule chain

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✓

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Details

Help

Open rule chain

Name\*

AlarmToFirebase

Debug mode

Rule chain\*

AlarmToFirebase

×

Description

- Connect the *CreateAlarm* and *AlarmToFirebase* nodes. Add “Created” as the link label.

Provide a screenshot to show that you connected the *CreateAlarm* and *AlarmToFirebase* nodes with a Created link label.



- Add another “rule chain” node to the *CreateAndClearAlarms* rule chain. Title this node “TempToFirebase” and select TempToFirebase as the rule chain. Select “Add” to add the TempToFirebase node to your Rule Engine. Provide a screenshot to show that you added the TempToFirebase node to your Rule Engine correctly.

TempToFirebase
Flow - rule chain

Details
Events
Help

Open rule chain

Name\*
TempToFirebase

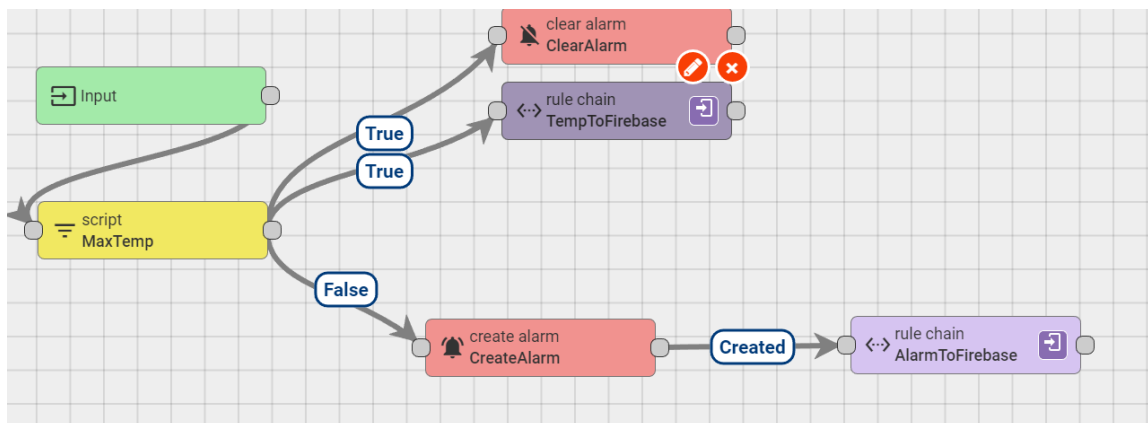
Rule chain\*
TempToFirebase

Description

Debug mode

10. Connect the MaxTemp and TempToFirebase *nodes*. Add “True” as the link label.

Provide a screenshot to show that you connected the MaxTemp and AlarmToFirebase *nodes* with a True link label.



11. Open the Root Rule Chain in ThingsBoard. Add a “rule chain” *node*. Name it “CreateAndClearAlarm” and select CreateAndClearAlarm as the rule chain. Select “Add” to add the CreateAndClearAlarm *node* to your Rule Engine. Provide a screenshot to show that you added the CreateAndClearAlarm *node* to your Rule Engine correctly.

Create/Clear Alarm

Flow - rule chain

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Details

Events

Help

Open rule chain

Name\*

Create/Clear Alarm

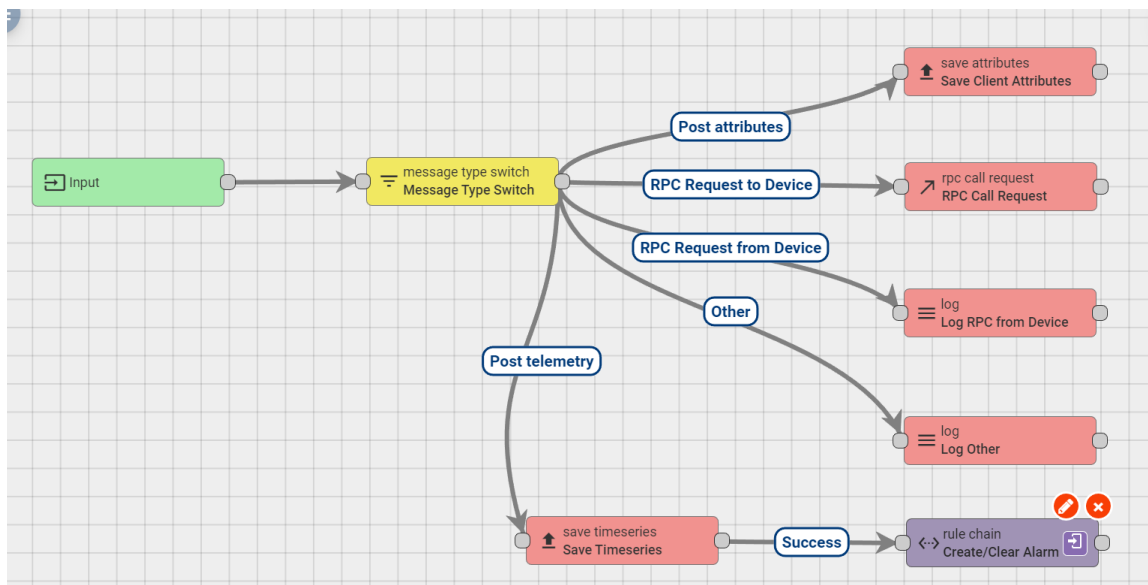
Rule chain\*

CreateAndClearAlarms

×

Description

12. Connect the SaveTimeseries and CreateAndClearAlarm nodes. Add "Success" as the link label.
- Provide a screenshot to show that you connected the SaveTimeseries and CreateAndClearAlarm nodes with a Success link label.



13. Navigate to Firebase and open the alarm and temperature fields.
- Provide two screenshots. The first screenshot should show that the alarm field is being populated with the live streaming data from the CreateAndClearAlarm rule chain. The second screenshot should show that

the temperature field is being populated with temperature and humidity data.

<https://module24project-b73c0-default-rtdb.firebaseio.com/>

