

Required Project 24.1 (Part 2): Analyzing Live Streaming Data Using ThingsBoard

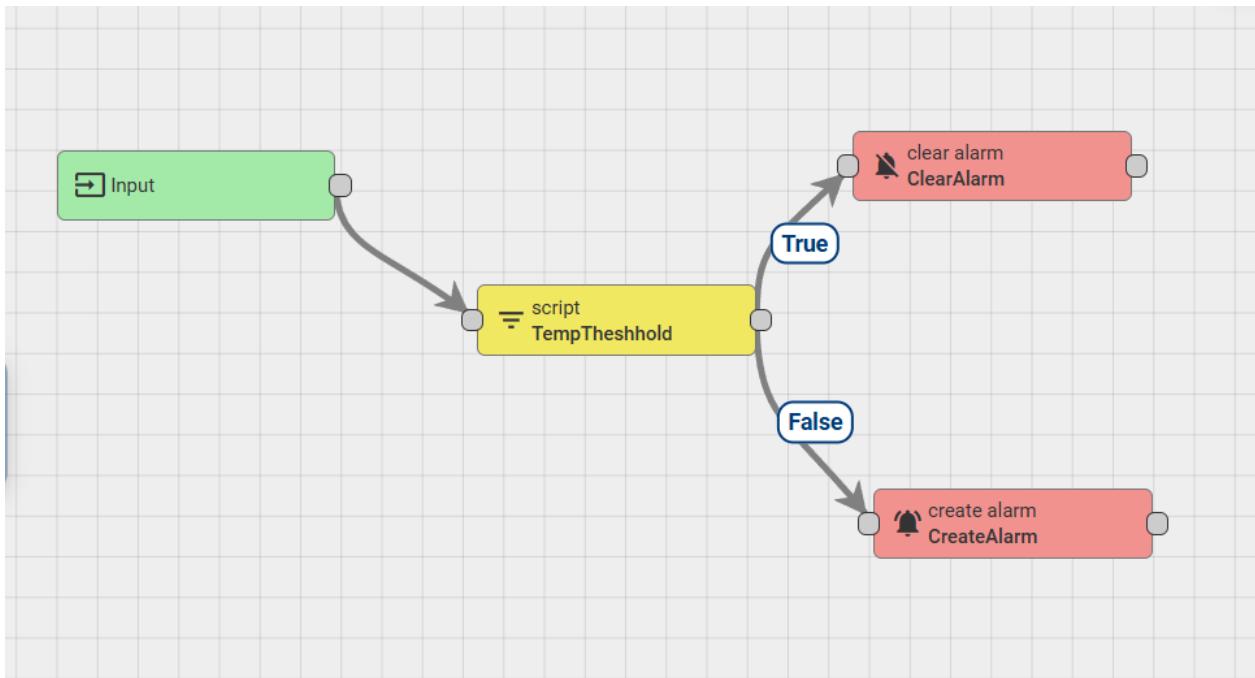
Robby MacNaughton

1. Provide a screenshot to show that you created the alarm field inside your Realtime database and initialized it to zero.

The screenshot shows the Firebase Realtime Database console for the project "module24Project". The database structure is as follows:

```
https://module24project-3ad3b-default.firebaseio.com/
  alarms: 0
  temperature
```

2. Provide a screenshot to show that you created the CreateAndClearAlarms rule chain with all of the necessary components.



3. Provide a screenshot to show that you created the TempToFirebase rule chain with all of the necessary components.

localhost:8080/ruleChains

ThingsBoard Rule chains Tenant administrator

Devices Assets Entity views Gateways Profiles Customers Rule chains Edge management Advanced features

1 rule chain selected

Created time	Name	Description	Root
2025-10-14 08:11:10	TempToFirebase		<input type="checkbox"/>
2025-10-14 08:04:01	CreateAndClearAlarms		<input type="checkbox"/>
2025-10-13 10:21:54	Thermostat		<input type="checkbox"/>
2025-10-13 10:21:54	Root Rule Chain		<input checked="" type="checkbox"/>

4. 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 *node*

TempToFirebase
External - rest api call

Details Help

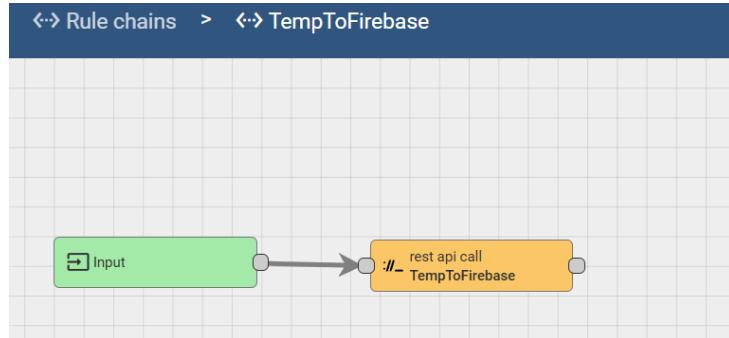
Name* TempToFirebase Disabled

Endpoint URL pattern*
<https://module24project-3ad3b-default-rtdb.firebaseio.com/temperature.json>

Use \${metadataKey} for value from metadata, \${messageKey} for value from message body.

Request method* POST

Enable proxy
 Use simple client HTTP factory
 Parse to plain text
If selected, request body message payload will be transformed from JSON string to plain text, e.g. msg = "Hello,\t"world" will be parsed to Hello, "world"
 Without request body



5. Provide a screenshot to show that you created the *AlarmToFirebase* rule chain with all of the necessary components.

The screenshot shows a list of rule chains. A single rule chain, "AlarmToFirebase", is selected, indicated by a checked checkbox in the first column. The table has columns for Created time, Name, Description, and Root. The "Root" column contains checkboxes and icons for download, flag, edit, and delete.

	Created time	Name	Description	Root
<input checked="" type="checkbox"/>	2025-10-14 08:34:58	AlarmToFirebase		<input type="checkbox"/>
<input type="checkbox"/>	2025-10-14 08:33:12	TempToFirbase		<input type="checkbox"/>
<input type="checkbox"/>	2025-10-14 08:04:01	CreateAndClearAlarms		<input type="checkbox"/>
<input type="checkbox"/>	2025-10-13 10:21:54	Thermostat		<input type="checkbox"/>
	2025-10-13 10:21:54	Root Rule Chain		<input checked="" type="checkbox"/>

6. 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*.

The dialog is titled "Add rule node: rest api call". It shows a configuration for a "rest api call" node. The "Name*" field is set to "AlarmToFirebase" and has a "Disabled" status indicator. The "Endpoint URL pattern*" field contains "https://module24project-3ad3b-default-rtbd.firebaseio.com/alarm.json". Below this, there are fields for "Request method*" (set to "POST") and a dropdown menu. At the bottom, there are several checkboxes for proxy settings and a note about parsing request bodies. The "Cancel" and "Add" buttons are at the bottom right.

Name*
AlarmToFirebase

Disabled

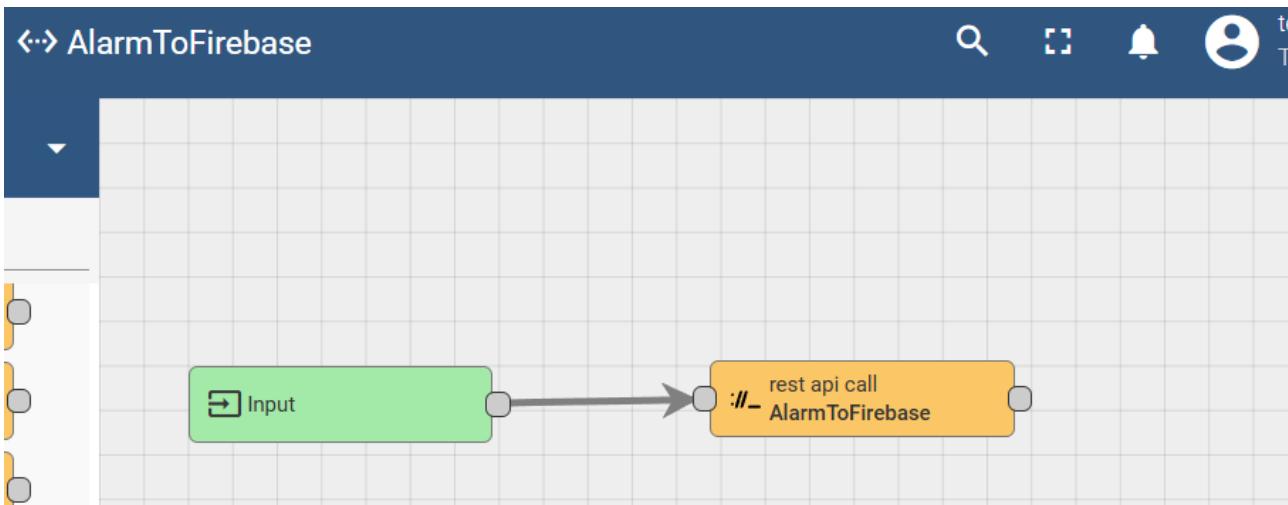
Endpoint URL pattern*
https://module24project-3ad3b-default-rtbd.firebaseio.com/alarm.json

Use \${metadataKey} for value from metadata, \${messageKey} for value from message body.

Request method*
POST

Enable proxy
 Use simple client HTTP factory
 Parse to plain text
If selected, request body message payload will be transformed from JSON string to plain text, e.g. msg = "Hello,\t"world" will be parsed to Hello, "world"
 Without request body

Cancel Add

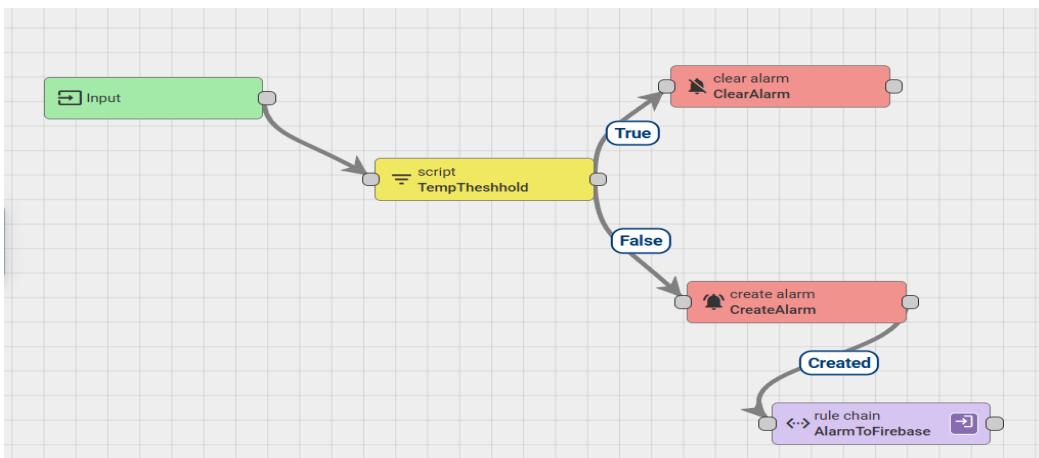


7. Provide a screenshot to show that you added the *AlarmToFirebase node* to your Rule Engine correctly.

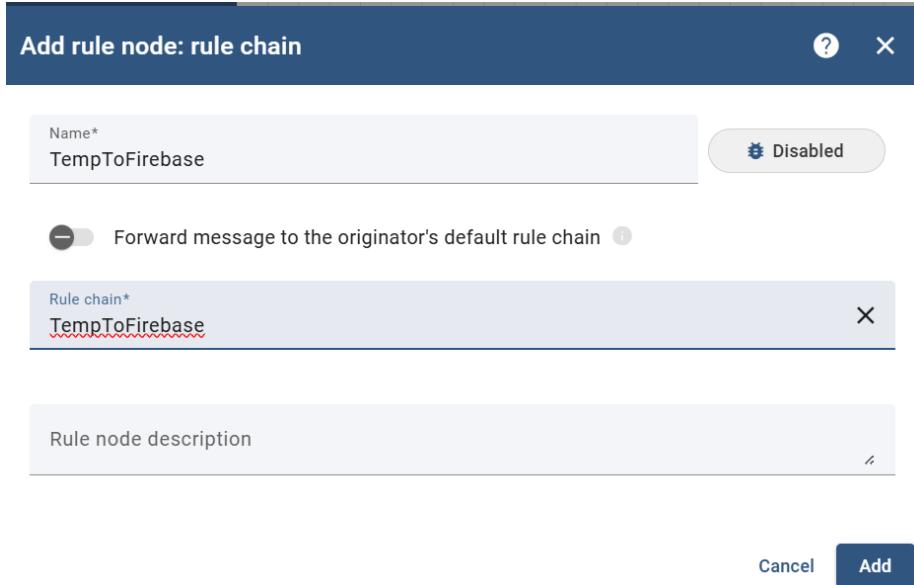
This is a screenshot of a 'rule chain' configuration page. The title bar says 'AlarmToFirebase' and 'Flow - rule chain'. Below it are 'Details' and 'Help' tabs, with 'Details' selected. A large blue button labeled 'Open rule chain' is prominent. The configuration fields include:

- Name***: AlarmToFirebase
- Forward message to the originator's default rule chain**: A toggle switch is turned off.
- Rule chain***: The value 'AlarmToFirebase' is listed.
- Rule node description**: A text input field containing placeholder text.

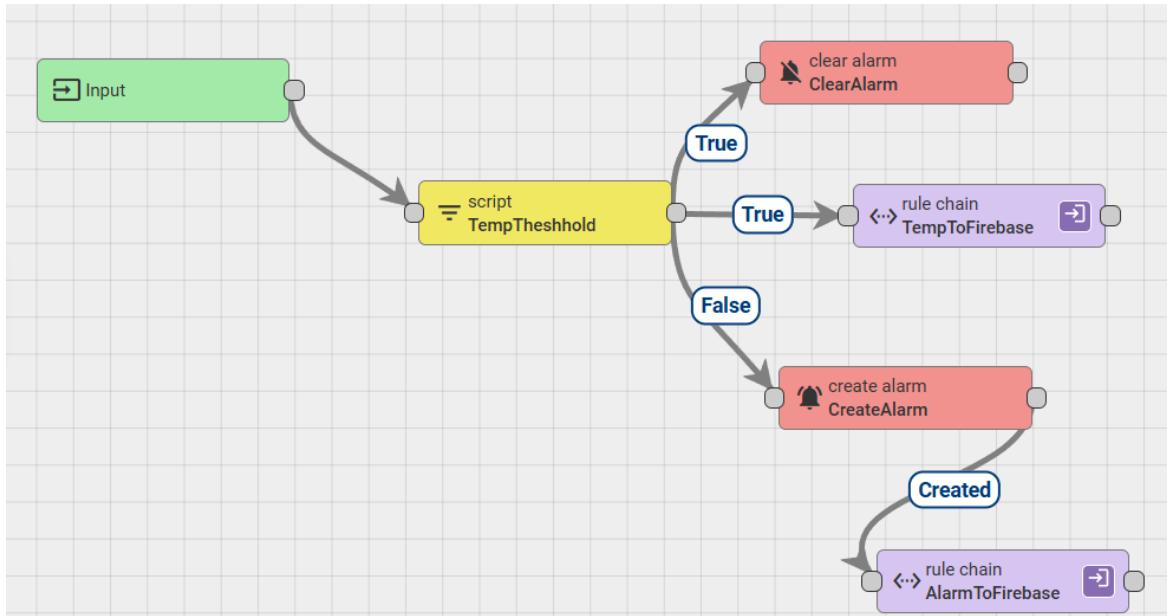
8. Provide a screenshot to show that you connected the *CreateAlarm* and *AlarmToFirebase nodes* with a *Created link label*.



9. Provide a screenshot to show that you added the TempToFirebase node to your Rule Engine correctly.



10. Provide a screenshot to show that you connected the MaxTemp and AlarmToFirebase nodes with a True link label. There's no MaxTemp used TempThreshold instead



11. Provide a screenshot to show that you added the CreateAndClearAlarm node to your Rule Engine correctly.

CreateAndClearAlarm

Flow - rule chain

Details Events Help

[Open rule chain](#)

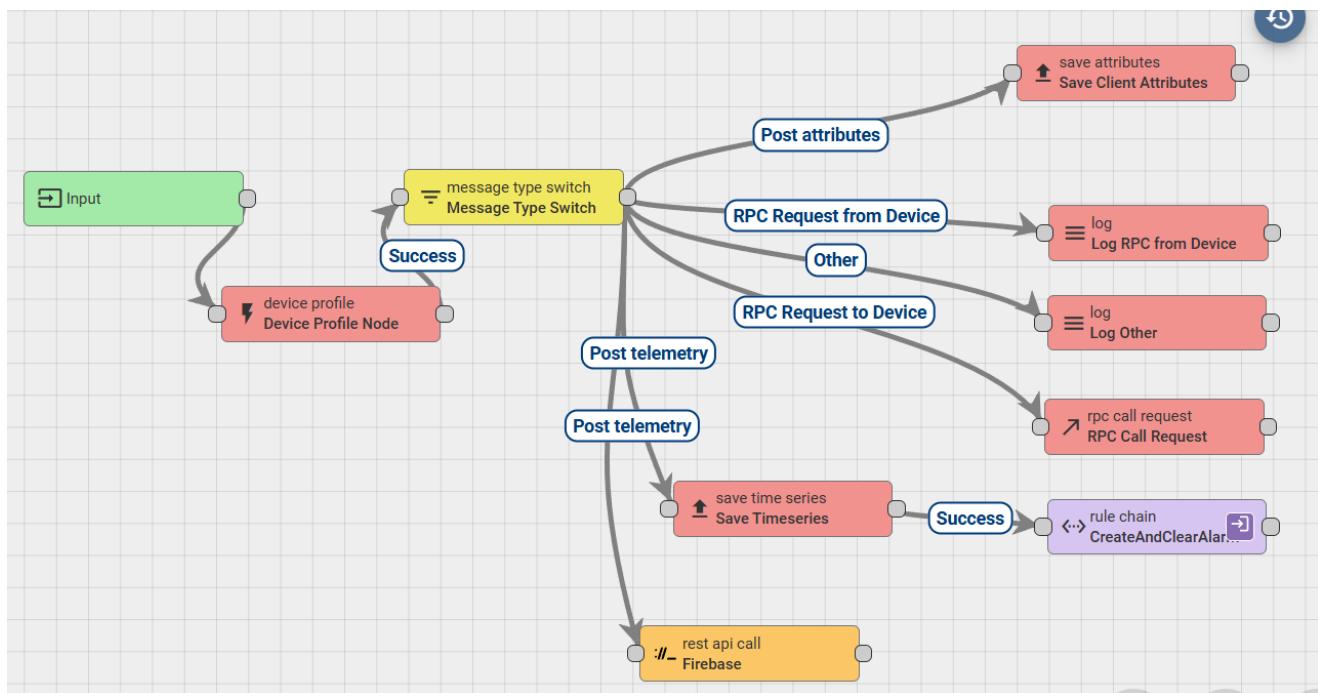
Name*
CreateAndClearAlarm

Forward message to the originator's default rule chain [?](#)

Rule chain*
CreateAndClearAlarms

Rule node description

12. Provide a screenshot to show that you connected the SaveTimeseries and CreateAndClearAlarm nodes with a Success link label.



13. 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.

Firebase

Project Overview

Project shortcuts

Realtime Database

Messaging

Data Connect

What's new

AI Logic NEW

Product categories

Build

Run

Related development tools

Firebase Studio

Spark No-cost (\$0/month) Upgrade

module24Project ▾

Realtime Database

Need help with Realtime Database? Ask Gemini

Data Rules Backups Usage Extensions

Protect your Realtime Database resources from abuse, such as billing fraud or phishing [Configure App Check](#) X

https://module24project-3ad3b-default-rtdb.firebaseio.com/

alarm

- ObYcEZv7xKCpXHW39dt
- ObYcLoCnphvUSM9fAaW
- ObYcUaRYvzroKHadA9o
- ObYcW3UhR_tDNv3k0xJ
 - ackTs: 0
 - acknowledged: false
 - assignTs: 0
 - clearTs: 0

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https://module24project-3ad3b-default-rtdb.firebaseio.com/

alarm

temperature

- ObTYwcwW6s0p6QU1QZ1
 - humidity: 95
 - temperature: 38
- ObTYxBsKV8uo85qoUiv
- ObTYxvs0jYOppli40Rw
- ObTYyemKGvKq-8-P0pi
- ObTYz0pkvazDUuouWP1