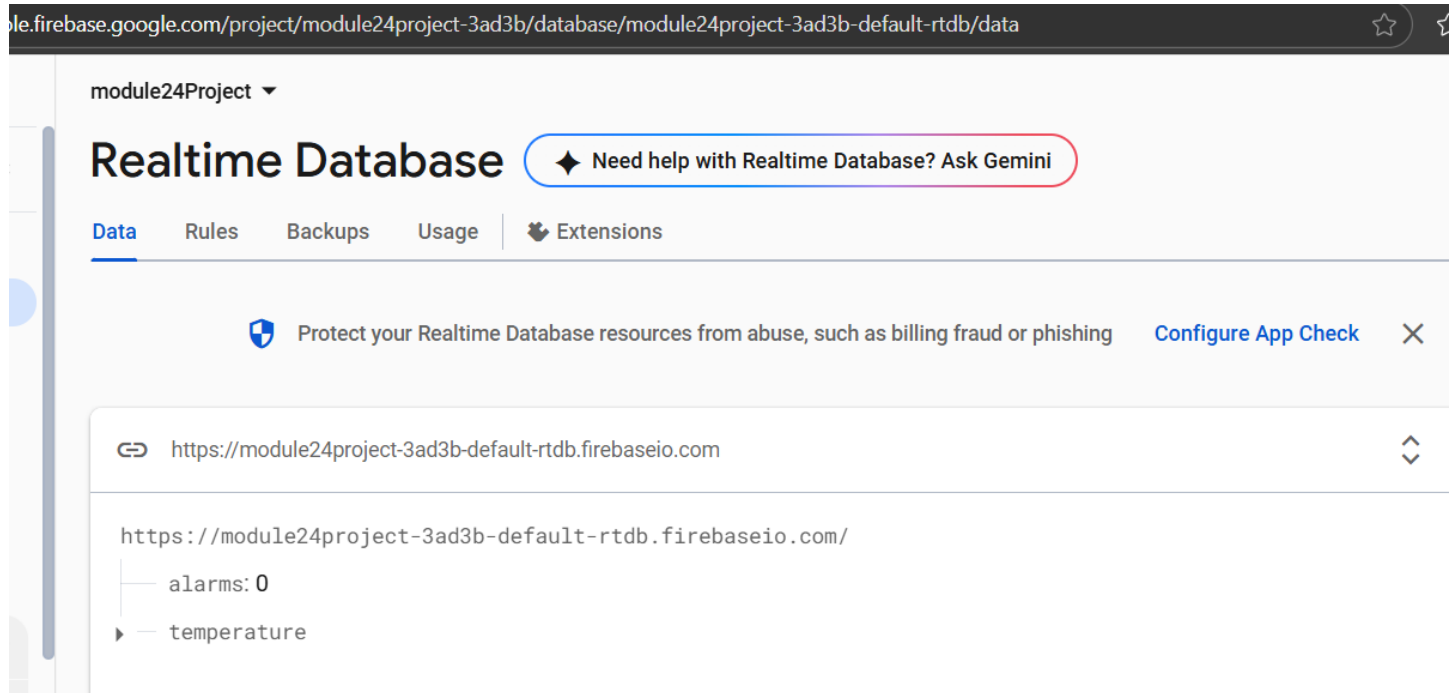


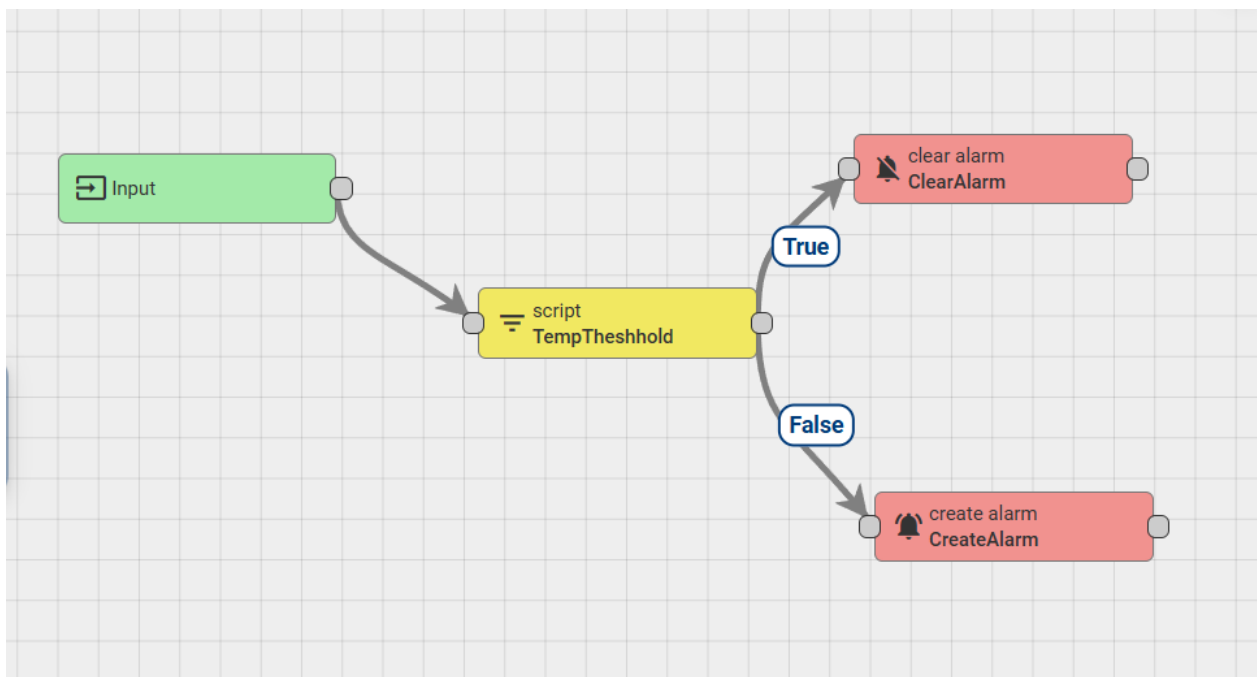
Required Project 24.1 (Part 2): Analyzing Live Streaming Data Using ThingsBoard

Robby MacNaughton

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



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@thingsboard.org
Tenant administrator

1 rule chain selected

Created time ↓	Name	Description	Root	
<input checked="" type="checkbox"/> 2025-10-14 08:11:10	TempToFirebase		<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"/>	⬇️ 🚩 ✎️ 🗑️

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

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

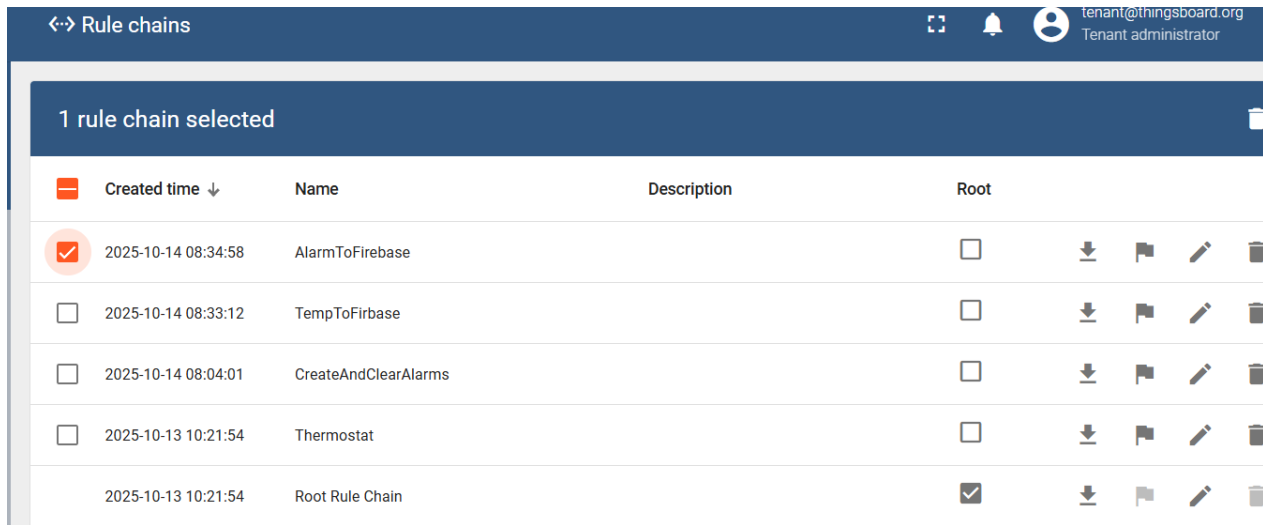
⚙️ Disabled

<-> Rule chains > <-> TempToFirebase

```

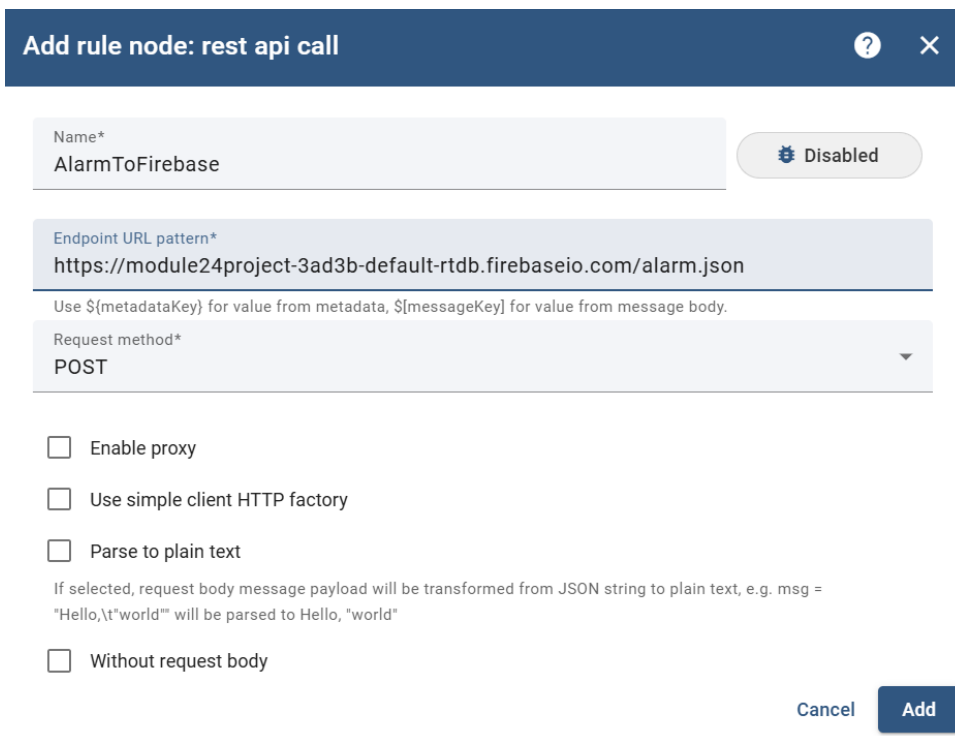
graph LR
    Input[Input] --> TempToFirebase[rest api call TempToFirebase]
  
```

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



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"/>	
<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*.



Add rule node: rest api call

Name*
AlarmToFirebase

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

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

Request method*
POST

☐ Enable proxy

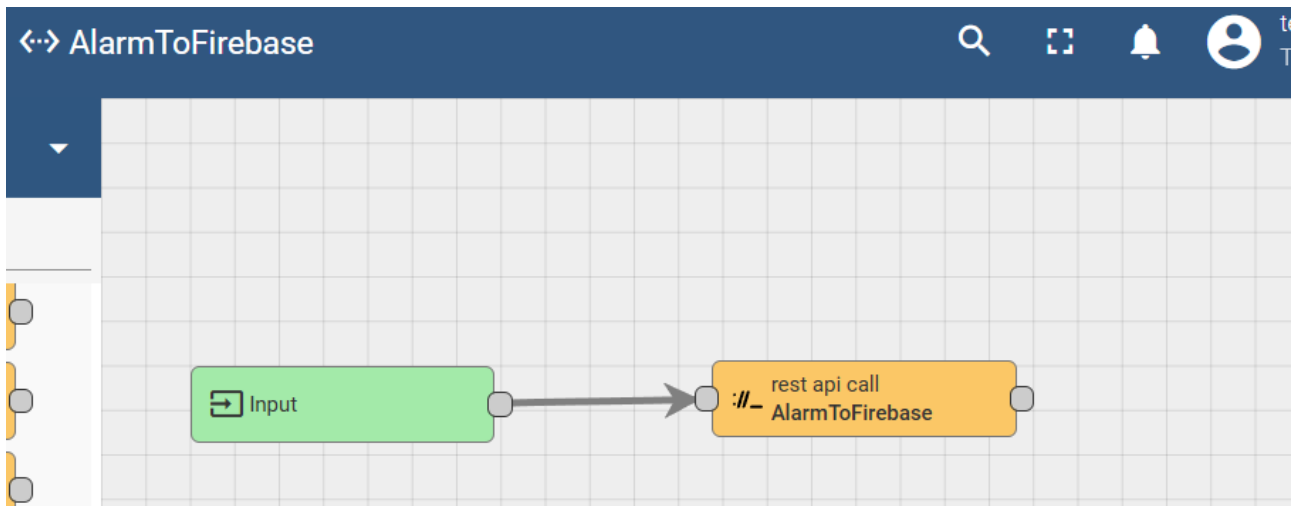
☐ Use simple client HTTP factory

☐ 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.

AlarmToFirebase

Flow - rule chain

Details Help

Open rule chain

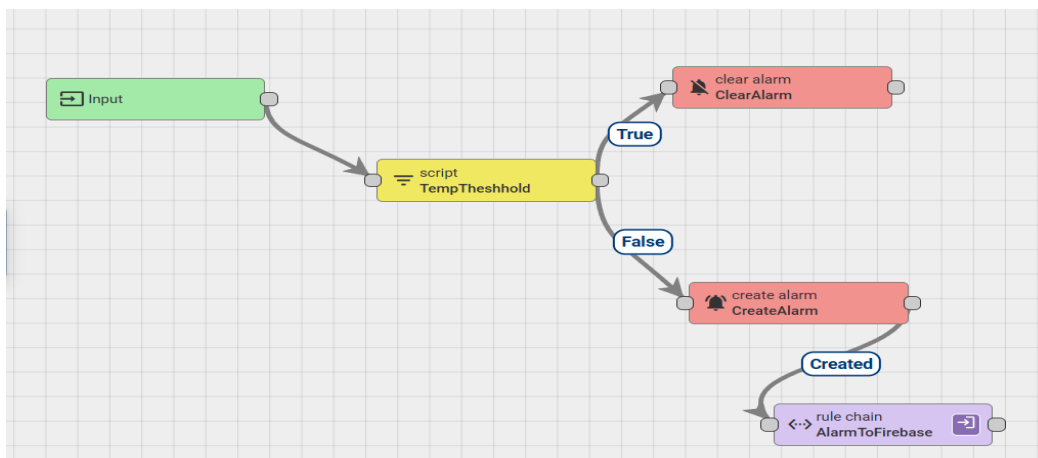
Name*
AlarmToFirebase

☐ Forward message to the originator's default rule chain ⓘ

Rule chain*
AlarmToFirebase

Rule node description

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.

Add rule node: rule chain

Name*

TempToFirebase

Disabled

Forward message to the originator's default rule chain

Rule chain*

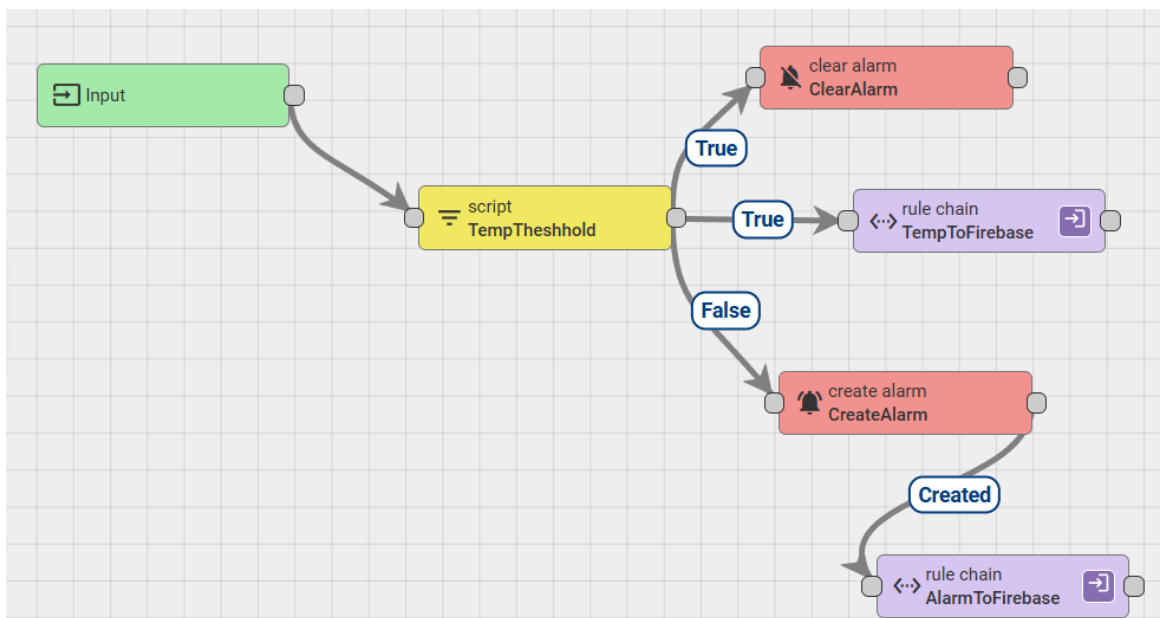
TempToFirebase

Rule node description

Cancel

Add

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

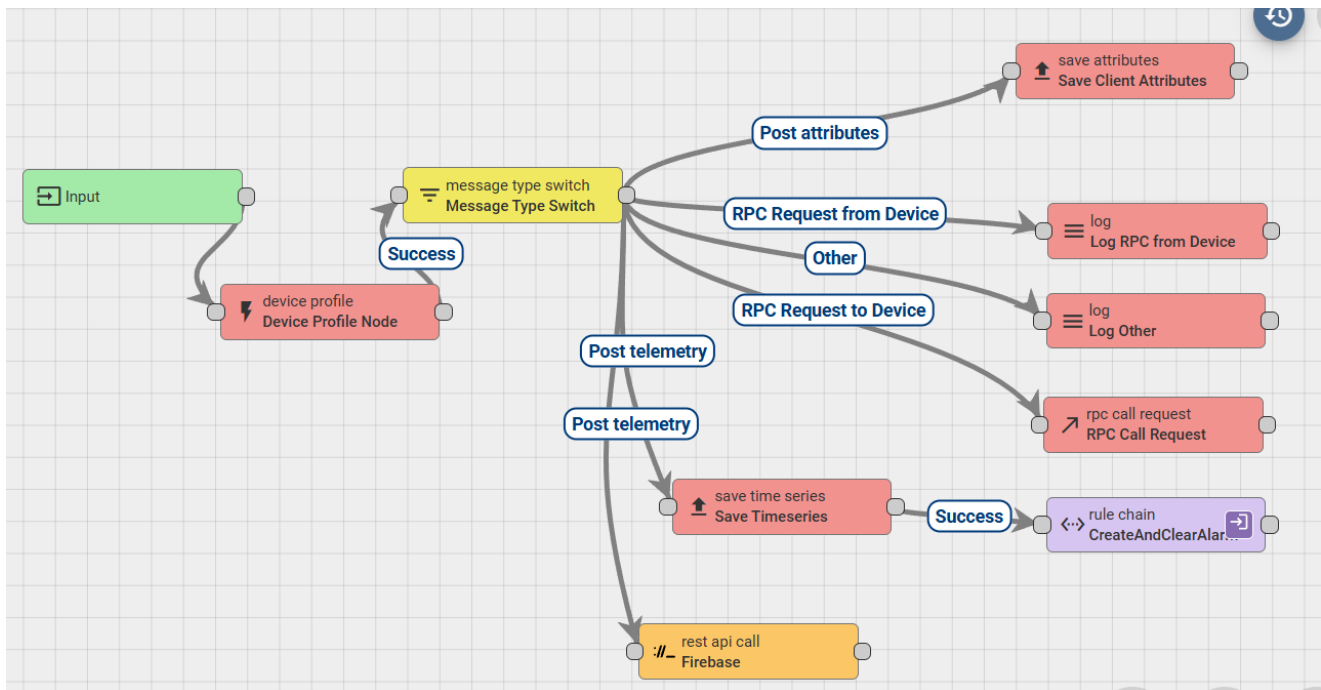
Name*
CreateAndClearAlarm

☐ 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.

Project Overview

Realtime Database

Messaging

Data Connect

AI Logic

Build

Run

Related development tools

Spark

module24Project

Realtime Database

Need help with Realtime Database? Ask Gemini

DataRulesBackupsUsageExtensions

Protect your Realtime Database resources from abuse, such as billing fraud or phishing

Configure App Check

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

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

alarm

-0bYcEZv7xKCpXHW39dt

-0bYcLoCNphvUSM9fAaW

-0bYcUaRYvzroKHAdA9o

-0bYcW3Uhr_tDnV3k0xJ

ackTs: 0

acknowledged: false

assignTs: 0

clearTs: 0

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Configure App Check

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

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

alarm

temperature

-0bTYwcvW6s0p6QU1QZ1

humidity: 95

temperature: 38

-0bTYxBsKV8uo85qoUiv

-0bTYxvs0jY0ppi40Rw

-0bTYyemKGvKq-8-P0pi

-0bTYz0pkvazDUuouWP1