

SENDING DATA FROM RASPBERRY-PI TO IBM WATSON

Team ID	PNT2022TMID39755
Project Name	Smart Waste Management Using for Metropolitan cities

AIM:

To send sensor data (or any dummy data) from Raspberry –Pi to IBM Watson .In our case it is DHT sensors Data.

REQUIREMENTS:

HARDWARE:

- RASPBERRY-PI (3B)(WITH ETHERNET CABLE OR WIFI CONNECTED)
- USB MOUSE
- USB KEYBOARD
- VGA TO HDMI CABLE
- A MONITOR
- RASPBERRY'S POWER SUPPLY
- DHT-11 Sensor
- Connecting Wires

SOFTWARE:

IBM BLUEMIX ACCOUNT

STEPS TO BE FOLLOWED

Step-1: Create a device in IBM Watson:

- Firstly, login into your IBM-Bluemix account with your e-mail ID and Password.



IBM Cloud Dashboard

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Internet of Things Platform

This service is the hub of all things IBM IoT, it is where you can set up and manage your connected devices so that your apps can access their live and historical data.

Create About

Type Service: Select a location

Provider: IBM

Last updated: 08/15/2022

Category: Internet of Things

Compliance: IAM-enabled

Location

Select a pricing plan

Displayed prices do not include tax. Monthly prices shown are for country or location: [United States](#)

Plan	Features	Pricing
Lite	Includes up to 500 registered devices, and a maximum of 200 MB of each data metric. Maximum of 500 registered devices.	Free

Summary

Internet of Things Platform **Free**

Location: Frankfurt
Plan: Lite
Service name: Internet of Things Platform-og
Resource group: Default

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[Terms](#)

Create

Add to estimate

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Create

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Internet of Things Platform-og Active Add tags

Manage

Plan

Connections

Let's get started with IBM Watson IoT Platform

Securely connect, control, and manage devices. Quickly build IoT applications that analyze data from the physical world.

Launch Docs

Ready for the next level?

IBM Watson IoT Platform Journey

☒ Lite ☐ Non-Production

IBM Watson IoT Platform

aspurushothaman53@gmail.com
ID: 40s0o5

Browse Action Device Types Interfaces

BROWSE DEVICES

All Devices Diagnose

This table shows a summary of all devices that have been added. It can be filtered, organized, and searched on using different criteria. To get started, you can add devices by using the Add Device button, or by using API.

Search by Device ID

Device Simulator

<input type="checkbox"/>	Device ID	Status	Device Type	Class ID	Date Added
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Develop The Web...pdf Dashboard Nodes...pdf

Type here to search

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aspurushothaman53@gmail.com
ID: 40s0o5

Browse Action Device Types Interfaces

Add Device

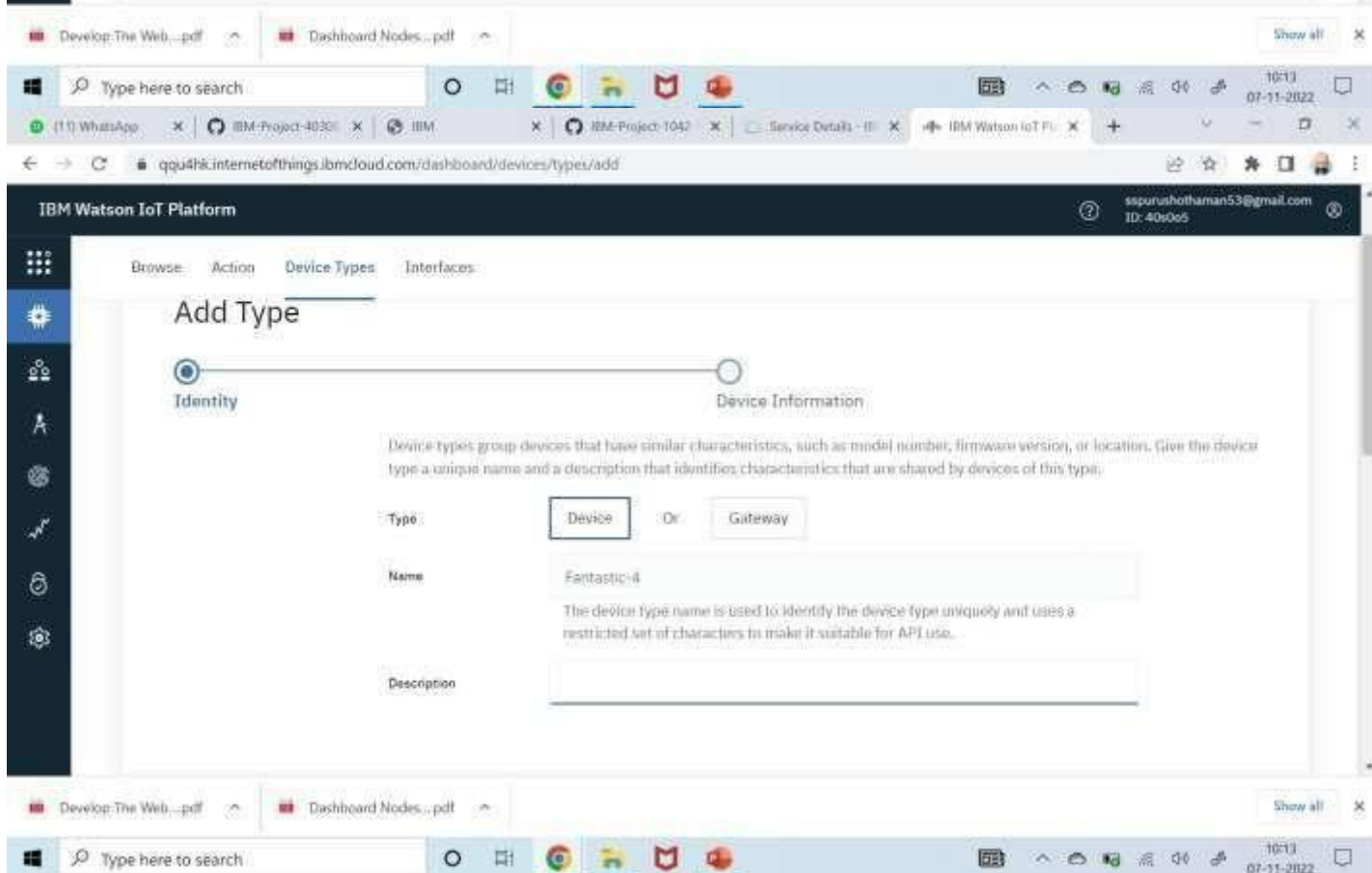
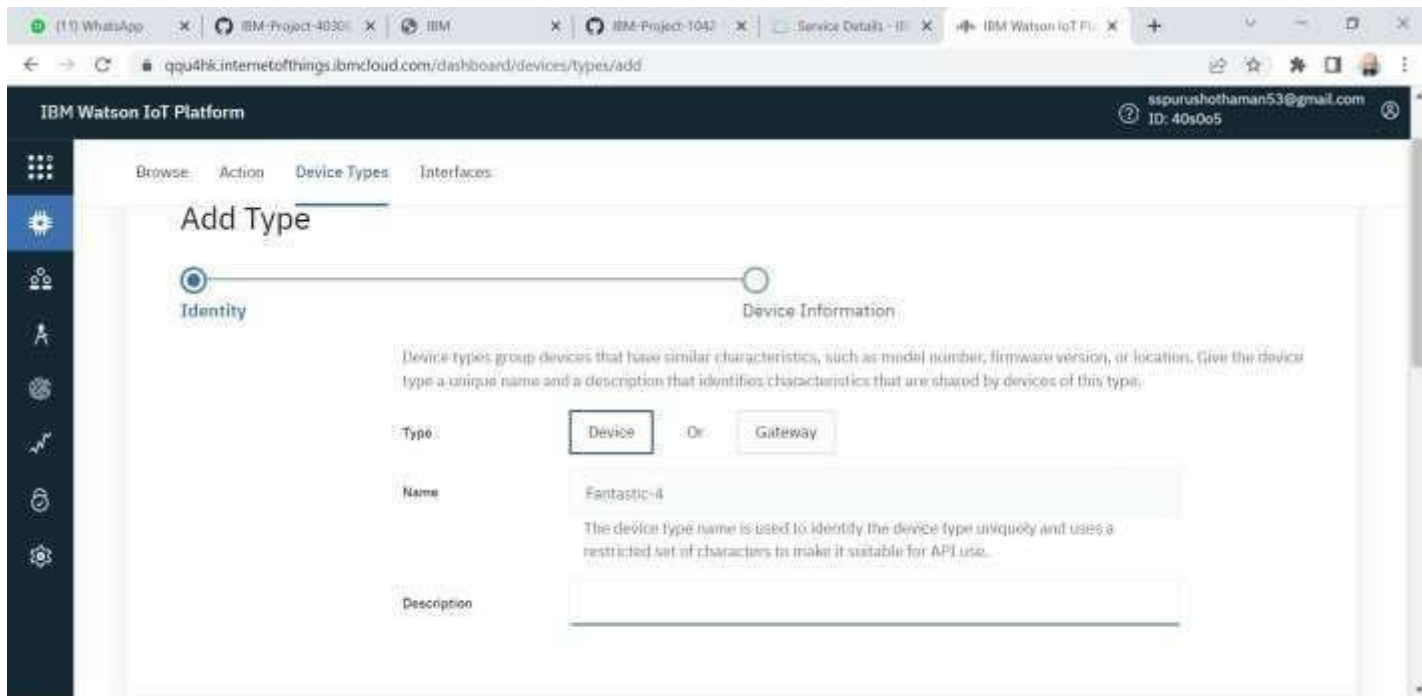
Identity Device Information Security Summary

Select a device type for the device that you are adding and give the device a unique ID.

Device Type: Select or create a device type...

Device ID: Enter Device ID

Cancel Next



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sspurushothaman53@gmail.com
ID: 40s0o5

Browse Action Device Types Interfaces

Register Devices, Define Interfaces

Now that you added a device type, you can register and connect devices for this type.

Register Devices

Cancel Next

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sspurushothaman53@gmail.com
ID: 40s0o5

Browse Action Device Types Interfaces

Select a device type for the device that you are adding and give the device a unique ID.

Device Type Fantastic-4

Device ID 12345

Cancel Next

Browse Devices

All Devices Diagnose

This table shows a summary of all devices that have been added. It can be filtered, resized, and searched on some different.

Develop The Web...pdf Dashboard Nodes...pdf Show all

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sspunashothaman53@gmail.com
ID: 40s0o5

Browse Action Device Types Interfaces

You can modify the default device information and enter more information about the device for identification purposes.

Serial Number	<input type="text" value="Enter Serial Number"/>	Manufacturer	<input type="text" value="Enter Manufacturer"/>
Model	<input type="text" value="Enter Model"/>	Device Class	<input type="text" value="Enter Device Class"/>
Description	<input type="text" value="Enter Description"/>	Firmware Version	<input type="text" value="Enter FirmWare Version"/>
Hardware Version	<input type="text" value="Enter Hardware Version"/>	Descriptive Location	<input type="text" value="Enter Descriptive Location"/>

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Type here to search

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sspunashothaman53@gmail.com
ID: 40s0o5

Browse Action Device Types Interfaces

There are two options for selecting a device authentication token.

Auto-generated authentication token (default)

Allow the service to generate an authentication token for you. Tokens are 18 characters and contain a mix of alphanumeric characters and symbols. The token is returned to you at the end of the device registration process.

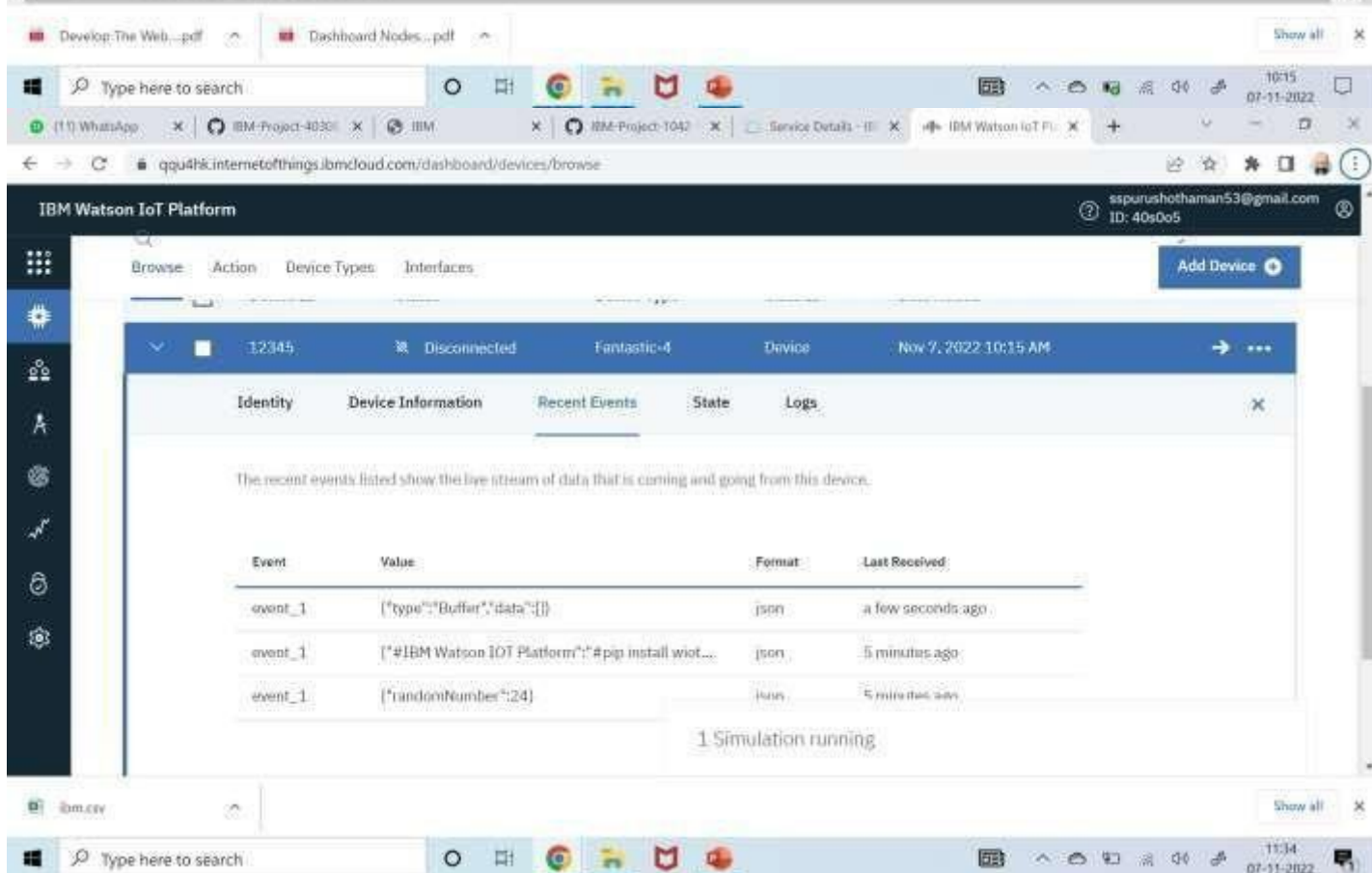
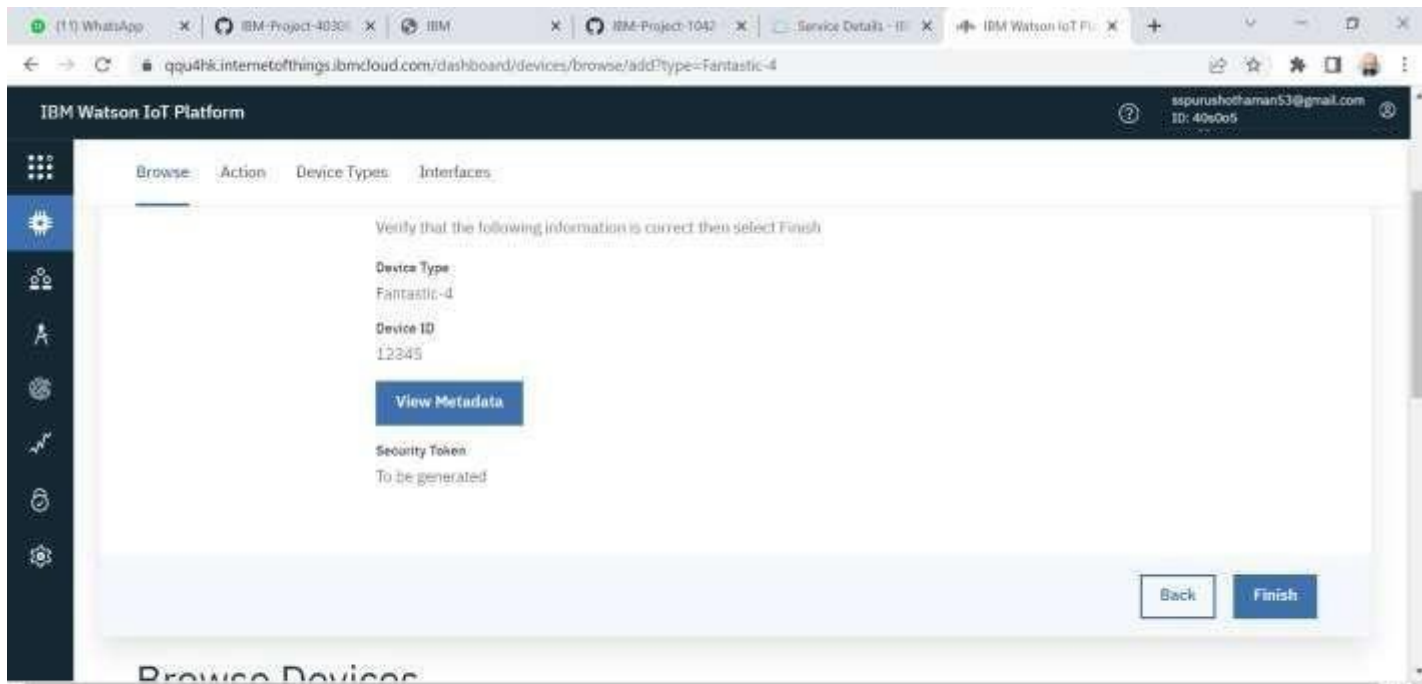
Self-provided authentication token

Provide your own authentication token for this device. The token must be between 8 and 36 characters and contain a mix of lowercase and uppercase letters, numbers, and symbols, which can include hyphens, underscores, and periods. Do not use repeated characters, dictionary words, user names, or other predefined sequences.

Authentication Token

Make a note of the generated token. Lost authentication tokens cannot be recovered. Tokens are encrypted before being stored.

Authentication token are encrypted before we store them.



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sspurushothaman53@gmail.com
ID: 40s0o5

Browse Action Device Types Interfaces

Add Device

12345 Disconnected Fantastic-4 Device Nov 7, 2022 10:15 AM

Identity Device Information Recent Events State Logs

The recent events listed show the live stream of data that is coming and going from this device.

Event	Value	Format	Last Received
event_1	{"type":"Buffer","data":[]}	json	a few seconds ago
event_1	["#IBM Watson IoT Platform","#pip install wiot...]	json	5 minutes ago
event_1	{"randomNumber":24}	json	5 minutes ago

1 Simulation running

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sspurushothaman53@gmail.com
ID: 40s0o5

Your boards Public boards

Create New Board

RISK AND SECURITY OVERVIEW
4 Cards
Owned by you

USAGE OVERVIEW
3 Cards
Owned by you

Boards shared with you

1 Simulation running

