

Sprint – 2

Date	10- Nov-2022
Team ID	PNT2022TMID16704
Project Name	Project - IoT Based Safety Gadget for Child Safety Monitoring & Notification
Maximum Marks	8 Marks

USN- 4 : Integrating the IBM Watson IoT Platform and Cloudant DB with the node red.

- Launching IBM IoT Watson

IBM Watson IoT Platform

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Browse Action Device Types Interfaces

Add Device

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

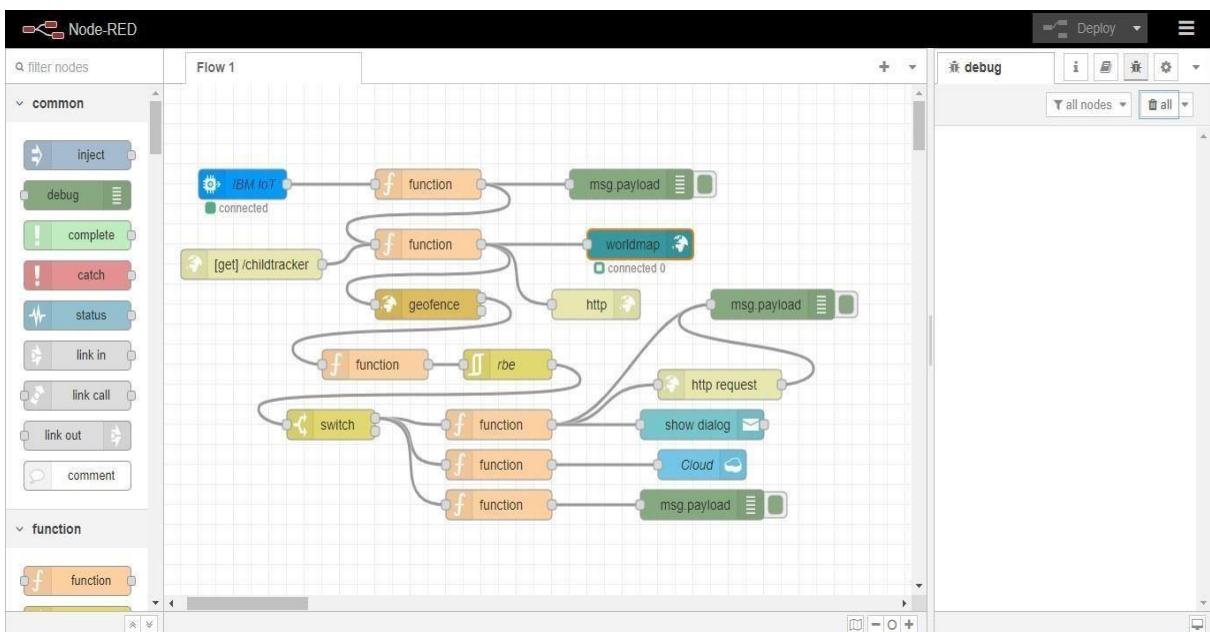
<input type="checkbox"/>	Device ID	Status	Device Type	Class ID	Date Added
> <input type="checkbox"/>	28	Disconnected	Tracker	Device	Nov 6, 2022 11:54 AM

Items per page 50 | 1-1 of 1 item

1 of 1 page

- Implementing the node-red in IBM cloud.

- Designing the node-red work flow for our project.



- Launch the cloudant DB and create a database to store the location data.

The screenshot shows the IBM Cloudant 'Databases' page. On the left is a dark sidebar with navigation links: Monitoring, Databases, Replication, Active Tasks, Account, Support, and Documentation. The main content area is titled 'Databases' and includes a 'Database name' dropdown, a 'Create Database' button, and icons for JSON, documentation, and notifications. Below this is a section titled 'Your Databases' containing a table with the following data:

Name	Size	# of Docs	Partitioned	Actions
child_location	0 bytes	0	Yes	[Replicate] [Lock] [Delete]
noderedrvwbe20221105	30.4 KB	4	No	[Replicate] [Lock] [Delete]
sample	0 bytes	0	Yes	[Replicate] [Lock] [Delete]

At the bottom right, it says 'Showing 1-3 of 3 databases. Databases per page 20' with pagination controls for page 1.

- For our project we are creating a database called child_loaction.

This is a partial screenshot of the IBM Cloudant 'Databases' page, showing only the first row of the database list:

Name	Size	# of Docs	Partitioned	Actions
child_location	0 bytes	0	Yes	[Replicate] [Lock] [Delete]

USN – 5 : Developing the Python code for connecting with IBM Watson IoT platform.

```

1 import time
2 import wiotp.sdk.application
3 print("Hello")
4 myConfig = {
5     "identity": {
6         "orgId": "fjde2i",
7         "typeId": "Tracker",
8         "deviceId": "28",
9     },
10    "auth": {
11        "token": "123456789"
12    }
13 }
14 client = wiotp.sdk.device.DeviceClient(config = myConfig, logHandlers = None)
15 client.connect()
16
17 while True:
18     name = "Child"
19     #in area location
20
21     latitude = 17.4219272
22     longitude = 78.5488783
23
24
25     #out area location
26
27     #latitude = 17.4219272
28     #longitude = 78.5488783
29     myData = {'name': name, 'lat': latitude, 'lon': longitude}
30     client.publishEvent(eventId = "status", msgFormat = "json", data = myData, qos = 0, onPublish = None)
31     print("Data published to IBM IoT Platform: ", myData)
32     time.sleep(5)
33
34 client.disconnect()

```

- Connected successfully with IBM IoT Watson.



```

Run: child x
C:\Users\dell\AppData\Local\Programs\Python\Python311\python.exe C:/Users/dell/AppData/Local/Programs/Python/child.py
Data published to IBM IoT Platform: {'name': 'Child', 'lat': 17.4219272, 'lon': 78.5488783}
2022-11-08 20:56:53,786 wiotp.sdk.device.client.DeviceClient INFO Connected successfully: d:fjde2i:Tracker:28
Data published to IBM IoT Platform: {'name': 'Child', 'lat': 17.4219272, 'lon': 78.5488783}
Data published to IBM IoT Platform: {'name': 'Child', 'lat': 17.4219272, 'lon': 78.5488783}
Data published to IBM IoT Platform: {'name': 'Child', 'lat': 17.4219272, 'lon': 78.5488783}
Data published to IBM IoT Platform: {'name': 'Child', 'lat': 17.4219272, 'lon': 78.5488783}

```

- IBM IoT Watson platform receiving the details of the child's location.

IBM Watson IoT Platform

?

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Browse

Action

Device Types

Interfaces

Add Device +

28

Disconnected

Tracker

Device

Nov 6, 2022 11:54 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
status	{"name":"Child","lat":17.4219272,"lon":78.5488...	json	a few seconds ago
status	{"name":"Child","lat":17.4219272,"lon":78.5488...	json	a few seconds ago
status	{"name":"Child","lat":17.4219272,"lon":78.5488...	json	a few seconds ago
status	{"name":"Child","lat":17.4219272,"lon":78.5488...	json	a few seconds ago
status	{"name":"Child","lat":17.4219272,"lon":78.5488...	json	a few seconds ago