

SPRINT – 2

Date	10- Nov-2022
Team ID	PNT2022TMID17569
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

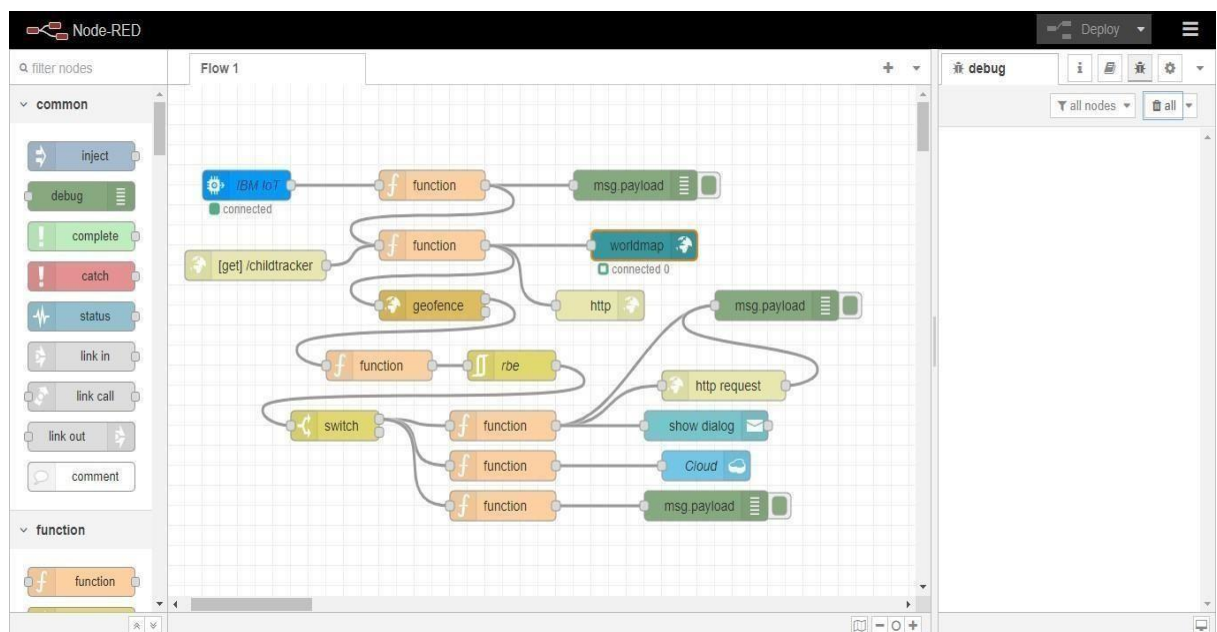
Items per page 50 | 1-1 of 1 item

1 of 1 page < 1 >

- Implementing the node-red in IBM cloud.

Name	Group	Location	Product	Status	Tags
Databases (2)					
node-red-rvwbe-2022--cloudant-...	Default	London	Cloudant	Active	—
node-red-rvwbe-2022--cloudant-...	asvithavscse19veltechmultitech / 1	Sydney	Cloudant	Provisioned	—
Developer tools (3)					
Continuous Delivery	Default	Sydney	Continuous Delivery	Active	—
Node RED RVWBE 2022-11-05	Default	Global	Cloud Application	—	—
NodeREDRVWBE2022-11-05	Default	Sydney	Toolchain	—	—
Logging and monitoring (0)					
Migration (0)					
Integration (0)					
Internet of Things (1)					
Internet of Things Platform-asvi	Default	Frankfurt	Internet of Things Platform	Active	—

- 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 management interface. 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 search bar, a 'Create Database' button, and icons for JSON, documentation, and notifications. Below the title is a section 'Your Databases' containing a table with the following data:

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

At the bottom of the interface, it indicates 'Showing 1-3 of 3 databases.' and 'Databases per page 20'. The IBM Cloudant logo and user information 'Log Out IBMid-66700085RV' are visible in the sidebar.

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

This screenshot shows the same IBM Cloudant Databases interface, but now only the 'child_location' database is listed in the table. The sidebar and top navigation elements remain the same.

Name	Size	# of Docs	Partitioned	Actions
child_location	0 bytes	0	Yes	[Icons: 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
35 client.disconnect()
36

```

- Connected successfully with IBM IoT Watson.



```

Run: child x
C:\Users\del\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