

Project Development Phase

Sprint – 2

Date	5 Nov 2022
Team ID	PNT2022TMID22281
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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ID: fjde2i

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

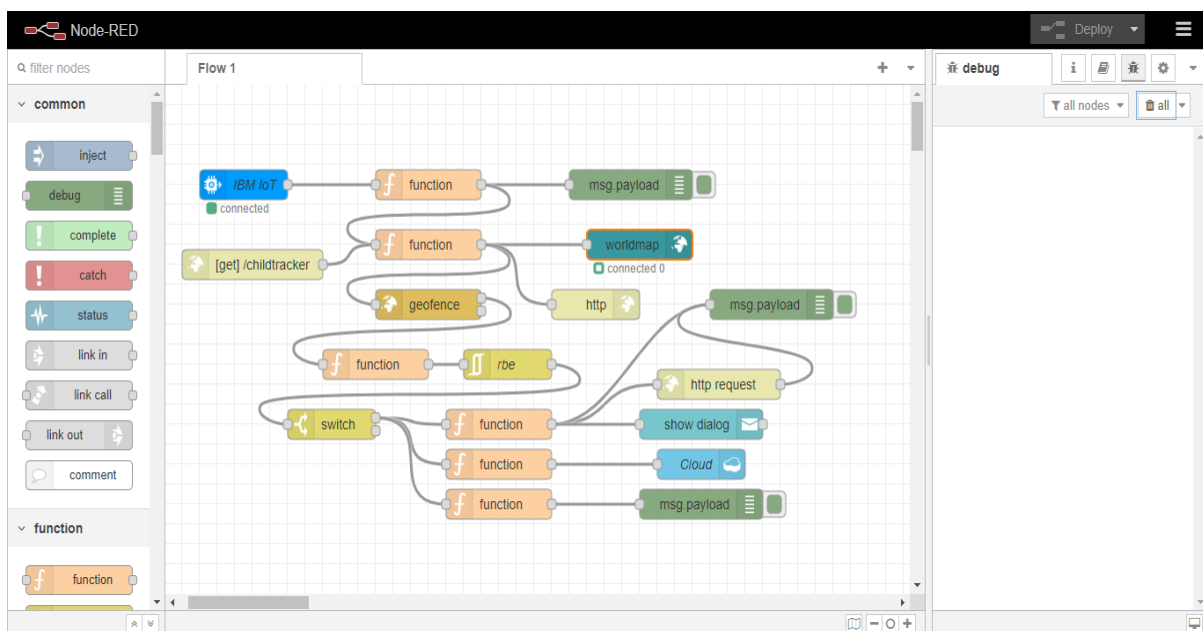
Items per page 50 | 1-1 of 1 item

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-asv	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.

Monitoring
 Databases
 Replication
 Active Tasks
 Account
 Support
 Documentation

 IBM Cloudant

 Log Out IBMid-66700085RV

Databases

Database name ▾

Create Database

{ } JSON

Your Databases

Name	Size	# of Docs	Partitioned	Actions
child_location	0 bytes	0	Yes	
noderedrvwbe20221105	30.4 KB	4	No	
sample	0 bytes	0	Yes	

Showing 1–3 of 3 databases.
 Databases per page 20 ▾
 « 1 »

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

Monitoring
 Databases
 Replication
 Active Tasks

Databases

Database name ▾

Create Database

{ } JSON

Your Databases

Name	Size	# of Docs	Partitioned	Actions
child_location	0 bytes	0	Yes	

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\de\l\AppData\Local\Programs\Python\Python311\python.exe C:/Users/de\l\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.

The screenshot displays the IBM Watson IoT Platform interface. At the top, the header shows the platform name, a user profile icon, and the email address `asvithavs.cse19@veltechmultitech.org` with ID `fjde2i`. The main navigation bar includes links for `Browse`, `Action`, `Device Types`, and `Interfaces`, along with an `Add Device` button. The central panel shows details for a specific device, identified by ID `28`, which is currently `Disconnected`. The device is categorized as a `Tracker` and the last update was on `Nov 6, 2022 11:54 AM`. Below this, a tabbed interface allows switching between `Identity`, `Device Information`, `Recent Events` (which is the active tab), `State`, and `Logs`. A message states: "The recent events listed show the live stream of data that is coming and going from this device." A table below lists the recent events:

Event	Value	Format	Last Received
status	<code>{"name":"Child","lat":17.4219272,"lon":78.5488...</code>	json	a few seconds ago
status	<code>{"name":"Child","lat":17.4219272,"lon":78.5488...</code>	json	a few seconds ago
status	<code>{"name":"Child","lat":17.4219272,"lon":78.5488...</code>	json	a few seconds ago
status	<code>{"name":"Child","lat":17.4219272,"lon":78.5488...</code>	json	a few seconds ago
status	<code>{"name":"Child","lat":17.4219272,"lon":78.5488...</code>	json	a few seconds ago