

Project Development Phase Sprint

– 2

Date	8 Nov 2022
Team ID	PNT2022TMID08341
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

Device ID	Status	Device Type	Class ID	Date Added
> 28	Disconnected	Tracker	Device	Nov 6, 2022 11:54 AM

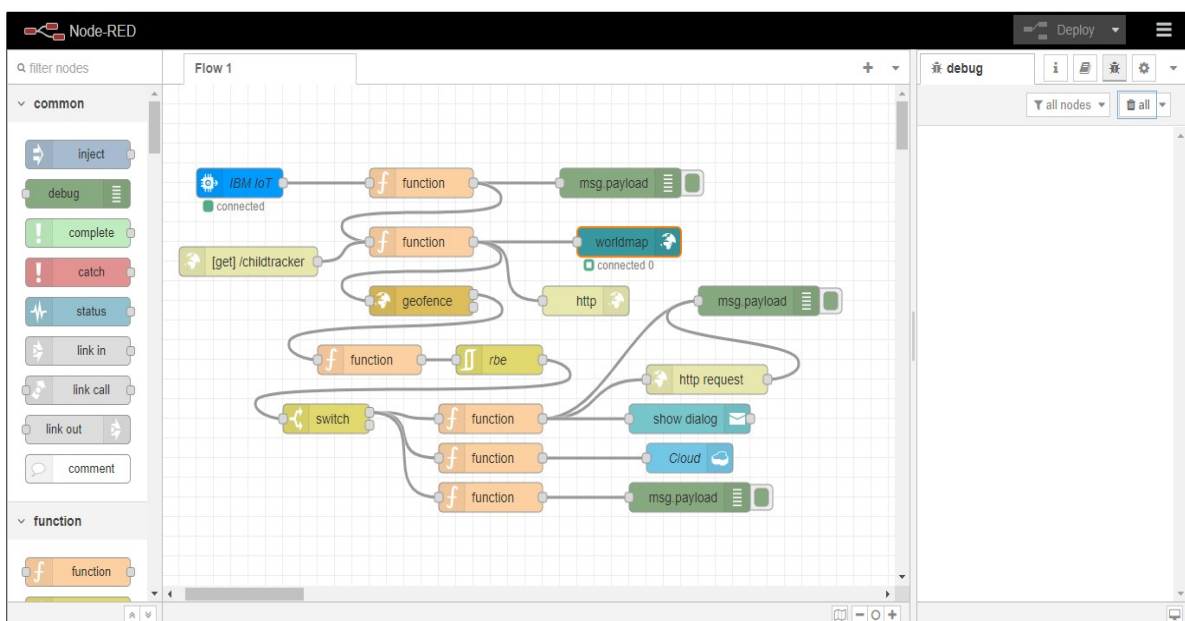
Items per page 50 | 1-1 of 1 item

1 of 1 page

- Implementing the node-red in IBM cloud.










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 console. On the left is a dark sidebar with navigation links: Monitoring, Databases, Replication, Active Tasks, Account, Support, and Documentation. The main area is titled 'Databases' and contains a table of existing databases. The table has columns for Name, Size, # of Docs, Partitioned, and Actions. Three databases are listed: 'child_location' (0 bytes, 0 docs, partitioned), 'noderedrvwbe20221105' (30.4 KB, 4 docs, not partitioned), and 'sample' (0 bytes, 0 docs, partitioned). At the bottom right, it indicates 'Showing 1-3 of 3 databases' and 'Databases per page 20'.

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

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

This screenshot shows the same IBM Cloudant Databases interface, but now only one database, 'child_location', is visible in the table. The table structure and headers are identical to the previous screenshot, with columns for Name, Size, # of Docs, Partitioned, and Actions. The 'child_location' database is listed with 0 bytes, 0 docs, and is partitioned. The sidebar and top navigation remain the same.

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
26     #out area location
27
28     #latitude = 17.4219272
29     #longitude = 78.5488783
30     myData = {'name':name, 'lat':latitude, 'lon': longitude}
31     client.publishEvent(eventId = "status", msgFormat = "json", data = myData, qos = 0, onPublish =None)
32     print("Data published to IBM IoT Platform: ", myData)
33     time.sleep(5)
34
35 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.

The screenshot displays the IBM Watson IoT Platform interface. At the top, the header shows the platform name, a search bar, and user information (asvithavs.cse19@veltechmultitech.org, ID: fjde2i). The main navigation bar includes 'Browse', 'Action', 'Device Types', and 'Interfaces'. A sidebar on the left contains icons for various IoT functions. The central panel shows details for a device with ID 28, which is 'Disconnected' and a 'Tracker' device. The 'Recent Events' tab is active, displaying a table of live stream data.

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