

Project Development Phase

Sprint 4

Date	11 Nov 2022
Team ID	PNT2022TMID00975
Project Name	Project - IoT Based Safety Gadget for Child Safety Monitoring and Notification
Maximum Marks	8 Marks

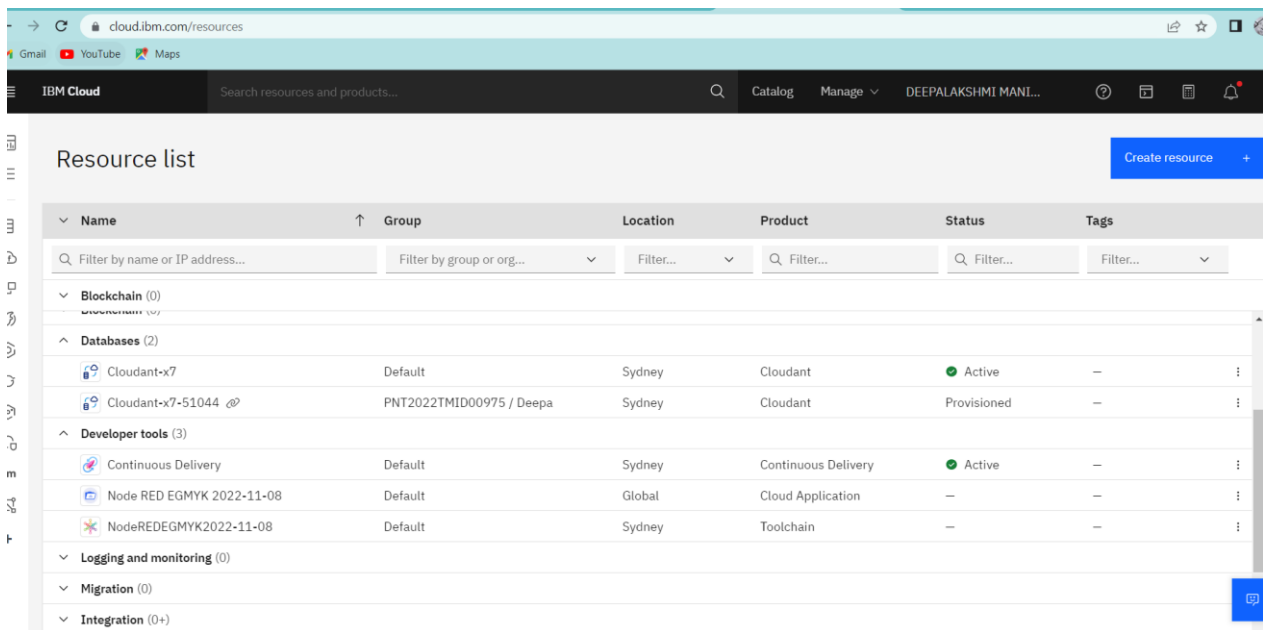
USN- 4 : Integrating the IBM Watson IoT Platform and Cloudant DB with the node red.

- Launching IBM IoT Watson

The screenshot shows the IBM Watson IoT Platform dashboard. The main heading is "Browse Devices". Below it, there are two tabs: "All Devices" (selected) and "Diagnose". A descriptive text states: "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." Below this text is a search bar labeled "Search by Device ID". To the right of the search bar is a "Device Simulator" toggle switch. The main content area contains a table with the following columns: Device ID, Status, Device Type, Class ID, Date Added, and Descriptive Location. The table has one row with the device ID "DEEPA", status "Disconnected", device type "DEEPA", class ID "Device", and date added "11 Nov 2022 12:10 PM". At the bottom of the table, there is a pagination bar showing "Items per page 50" and "1-1 of 1 item".

Device ID	Status	Device Type	Class ID	Date Added	Descriptive Location
DEEPA	Disconnected	DEEPA	Device	11 Nov 2022 12:10 PM	

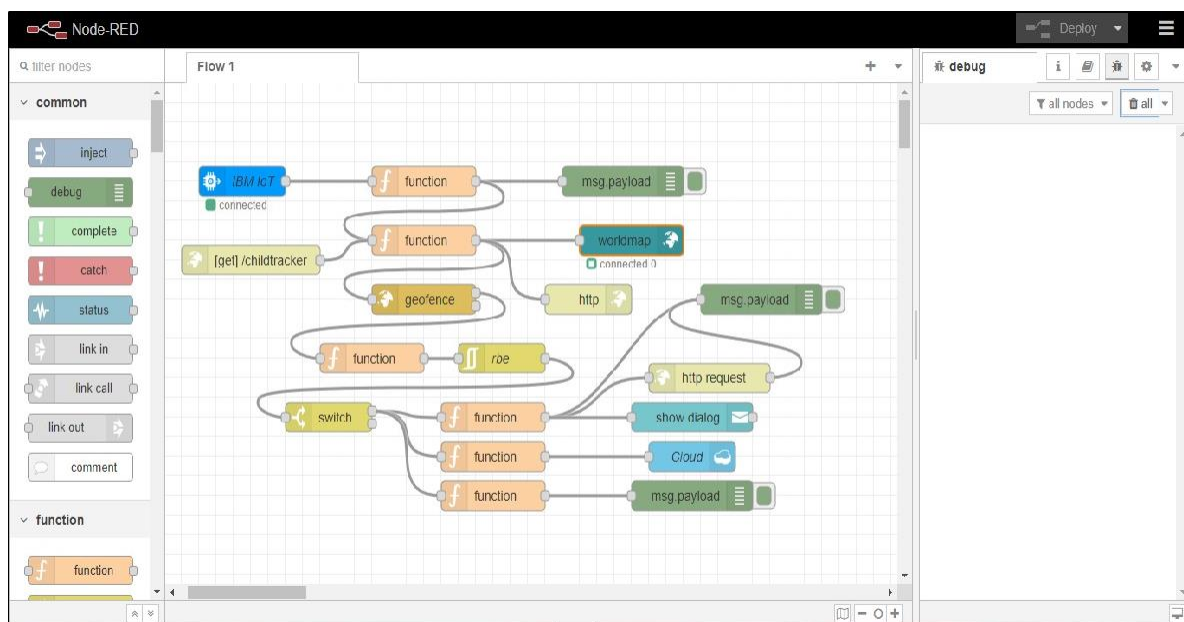
- Implementing the node-red in IBM cloud.



The screenshot shows the IBM Cloud console interface. The 'Resource list' page displays a table of resources. The table has columns for Name, Group, Location, Product, Status, and Tags. Resources are grouped into categories like Blockchain, Databases, Developer tools, Logging and monitoring, Migration, and Integration.

Name	Group	Location	Product	Status	Tags
Blockchain (0)					
Databases (2)					
Cloudant-x7	Default	Sydney	Cloudant	Active	—
Cloudant-x7-51044	PNT2022TMID00975 / Deepa	Sydney	Cloudant	Provisioned	—
Developer tools (3)					
Continuous Delivery	Default	Sydney	Continuous Delivery	Active	—
Node RED EGMKYK 2022-11-08	Default	Global	Cloud Application	—	—
NodeREDEGMKYK2022-11-08	Default	Sydney	Toolchain	—	—
Logging and monitoring (0)					
Migration (0)					
Integration (0+)					

- 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 (highlighted), Replication, Active Tasks, Account, Support, and Documentation. At the bottom of the sidebar is the IBM Cloudant logo and a 'Log Out' button with the ID 'IBMId-66700085RV'. The main content area is titled 'Databases' and includes a 'Database name' dropdown, a 'Create Database' button, and icons for JSON, a document, and a bell. Below this is a section '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 of the table area, it says 'Showing 1-3 of 3 databases. Databases per page 20' with a dropdown and pagination controls for page 1.

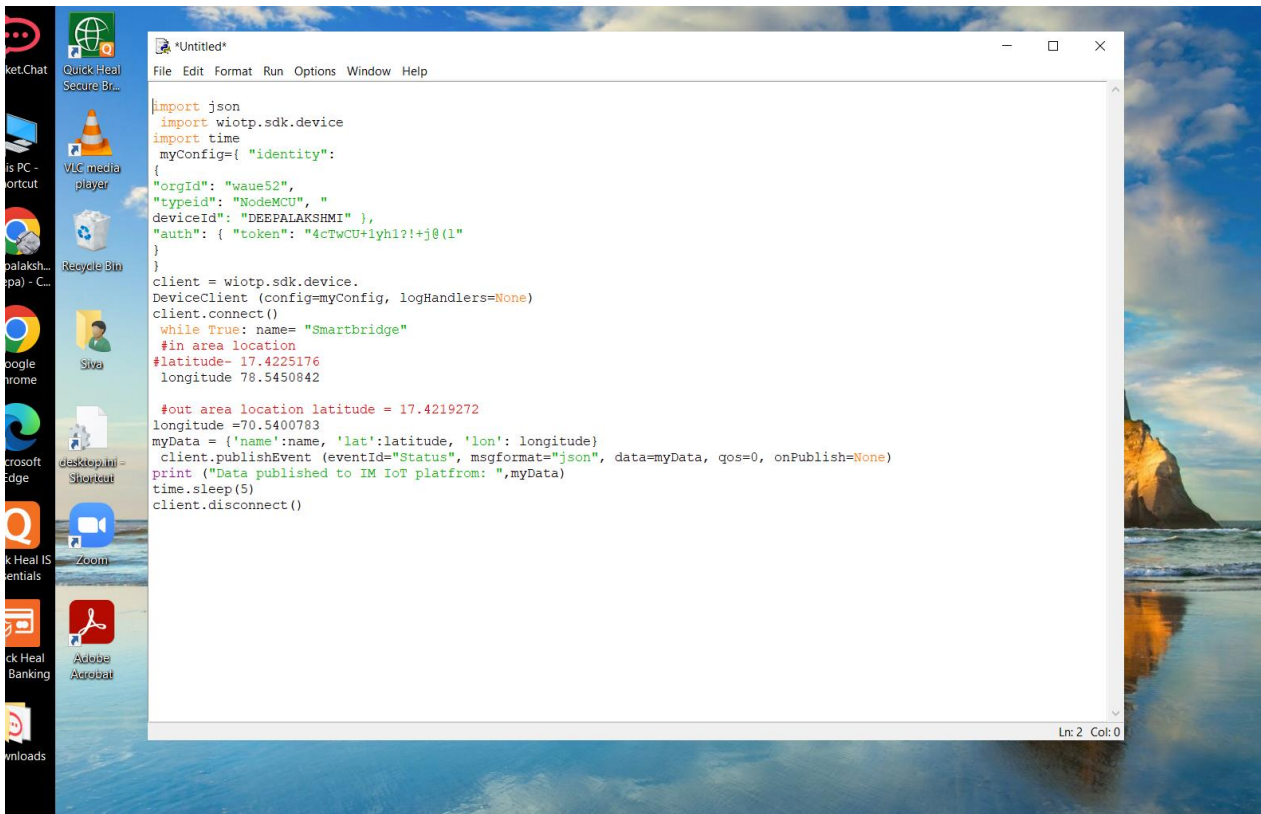
- For our project we are creating a database called child_loaction.

This screenshot shows the same IBM Cloudant 'Databases' page, but now only one database is listed in the table:

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

The sidebar and top navigation elements remain the same as in the previous screenshot.

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



```
*Untitled*
File Edit Format Run Options Window Help

import json
import wiotp.sdk.device
import time
myConfig={ "identity":
{
"orgId": "waue52",
"typeId": "NodeMCU",
"deviceId": "DEEPALAKSHMI" },
"auth": { "token": "4cTwCU+lyh1?!+j0(1"
}
}
client = wiotp.sdk.device.
DeviceClient (config=myConfig, logHandlers=None)
client.connect()
while True: name= "Smartbridge"
#in area location
#latitude- 17.4225176
longitude 78.5450842

#out area location latitude = 17.4219272
longitude =70.5400783
myData = {'name':name, 'lat':latitude, 'lon': longitude}
client.publishEvent (eventId="Status", msgformat="json", data=myData, qos=0, onPublish=None)
print ("Data published to IM IoT platform: ",myData)
time.sleep(5)
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:\waue52\Tracker:DEEPA
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}
Data published to IBM IoT Platform: {'name': 'Child', 'lat': 17.4219272, 'lon': 78.5488783}
```

