

## PROJECT DEVELOPMENT PHASE

### SPRINT - 3

#### CREATE A DATABASE IN CLOUDANT DB AND DEVELOP THE PYTHON SCRIPT

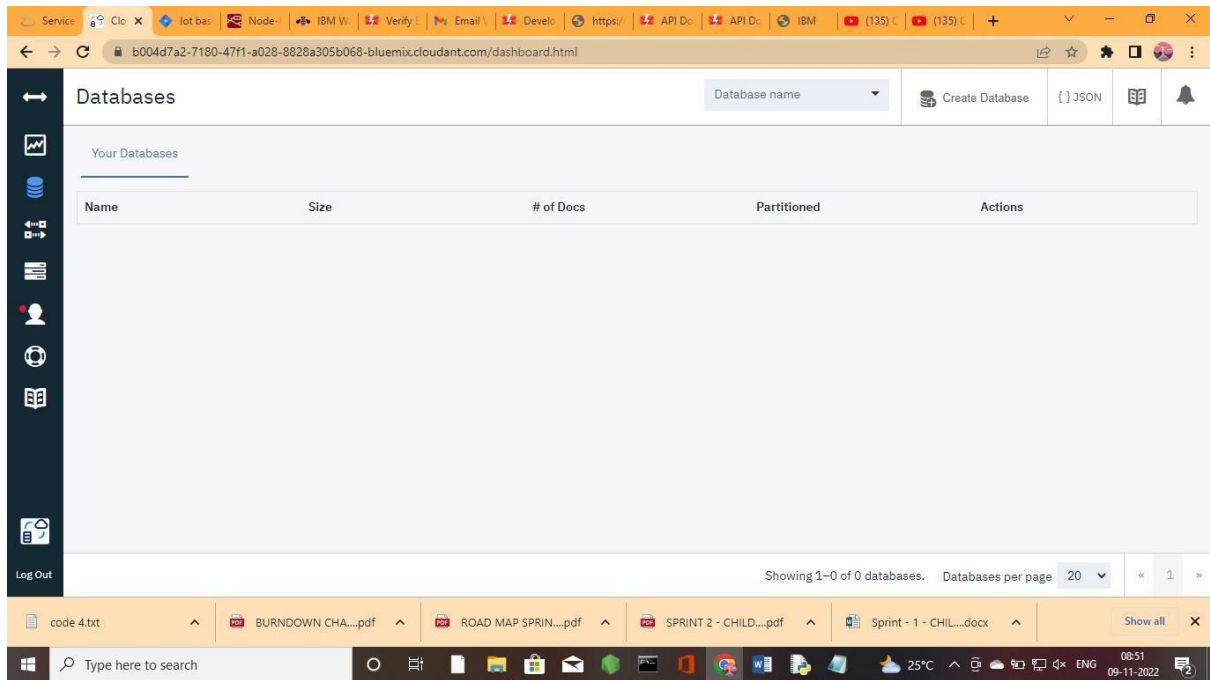
<b>DATE</b>	<b>19 November 2022</b>
<b>TEAM ID</b>	<b>PNT2022TMID40028</b>
<b>PROJECT NAME</b>	<b>IOT BASED SAFETY GADGET FOR CHILD SAFETY MONITORING AND NOTIFICATION</b>

#### USN 11: Launch the Cloudant DB and Create database to store the location data

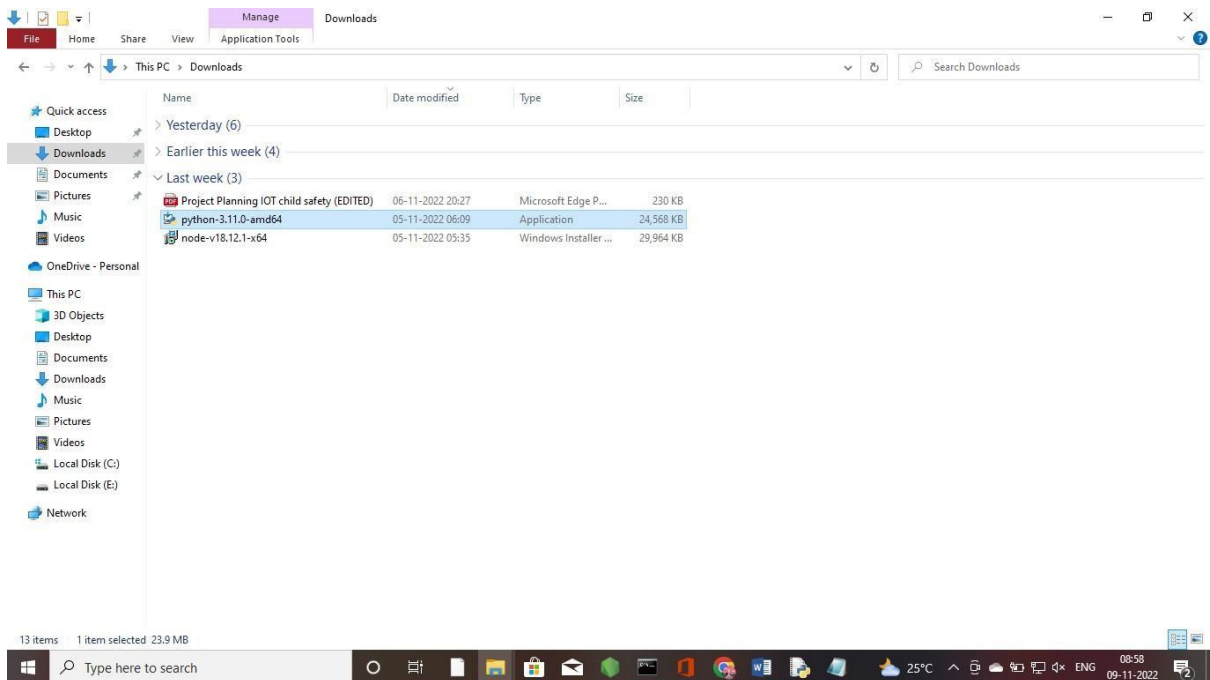
The screenshot displays the Cloudant console interface for a database instance named 'node-red-rfkey-2022--cloudant-1666966739396'. The instance is in an 'Active' state. The 'Overview' tab is selected, showing deployment details:

- CRN:** crn:v1:bluemix:public:cloudantnosqldb:eu-gb:a/81704e207bbb454dbb467f57228f4cb8:f536beaf-861e-4a97-b1ac-d0d58df9e94e::
- Location:** London
- External endpoint:** <https://b004d7a2-7180-47f1-a028-8828a305b068-bluemix.cloudant.com>
- External endpoint (preferred):** <https://b004d7a2-7180-47f1-a028-8828a305b068-bluemix.cloudantnosqldb.appdomain.cloud>
- Authentication methods:** IBM Cloud IAM and Cloudant credentials. A button 'Migrate to IAM Only' is visible.

The interface includes a sidebar with 'Manage' options (Service credentials, Plan, Connections), a 'Launch Dashboard' button, and a taskbar at the bottom showing various application windows and system status (25°C, 08:49, 09-11-2022).



## USN 12: Install the python software



## USN 13: Develop the python scripts to publish details to IBM IoT Platform

```
"IDLE Shell 3.11.0"
File Edit Shell Debug Options Window Help
Python 3.11.0 (main, Oct 24 2022, 18:26:48) [MSC v.1933 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>> import json
... import wiotp.sdk.device
... import NotImplemented
...
... myConfig = {
...     "orgid": "wmjtfb",
...     "typeId": "NodeMCU",
...     "deviceId": "123456"
... },
...     "auth": {
...         "token": "yfGKzLi*uaabvbnI)Xp"
...     }
... }
... client=wiotp.sdk.device.DeviceClient(config=myconfig, loghandlers=None)
... client.connect()
... while True:
...     name="smarthbridge"
...     #in area location
...
...     #latitude= 17.42225176
...     #longitude= 78.5458842
...
...     #out area location
...
...     latitude= 17.42225176
...     longitude= 78.5458842
...     myData={'name': name, 'lat':latitude, 'lon':longitude}
...     client.publishEvent(eventId="status", msgFormat="json", data=mydata, qos=0, onPublish=None)
...     print("Data published to IBM IoT platform:", myData)
...     time.sleep(5)
...
...     client.disconnect()
```

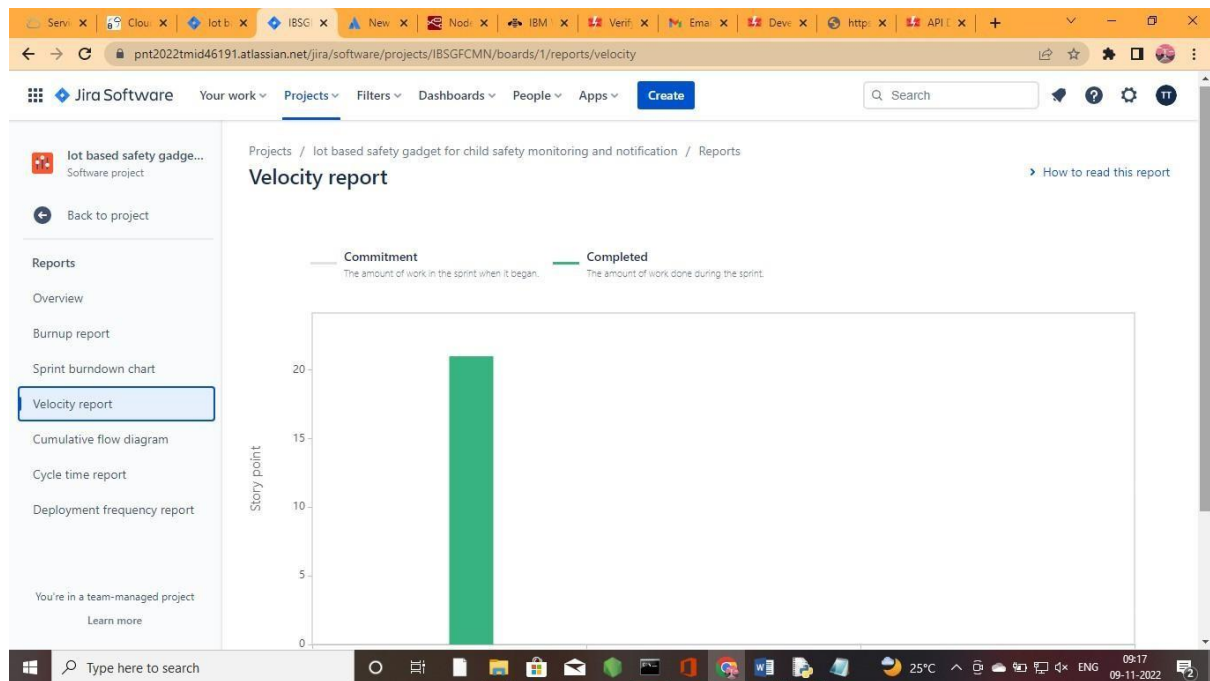
## USN 14: Integrate the device id, authentication token in python script

```
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... myConfig = {
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...     "deviceId": "123456"
... },
...     "auth": {
...         "token": "yfGKzLi*uaabvbnI)Xp"
...     }
... }
... client=wiotp.sdk.device.DeviceClient(config=myconfig, loghandlers=None)
... client.connect()
... while True:
...     name="smarthbridge"
...     #in area location
...
...     #latitude= 17.42225176
...     #longitude= 78.5458842
...
...     #out area location
...
...     latitude= 17.42225176
...     longitude= 78.5458842
...     myData={'name': name, 'lat':latitude, 'lon':longitude}
...     client.publishEvent(eventId="status", msgFormat="json", data=mydata, qos=0, onPublish=None)
...     print("Data published to IBM IoT platform:", myData)
...     time.sleep(5)
...
...     client.disconnect()
```

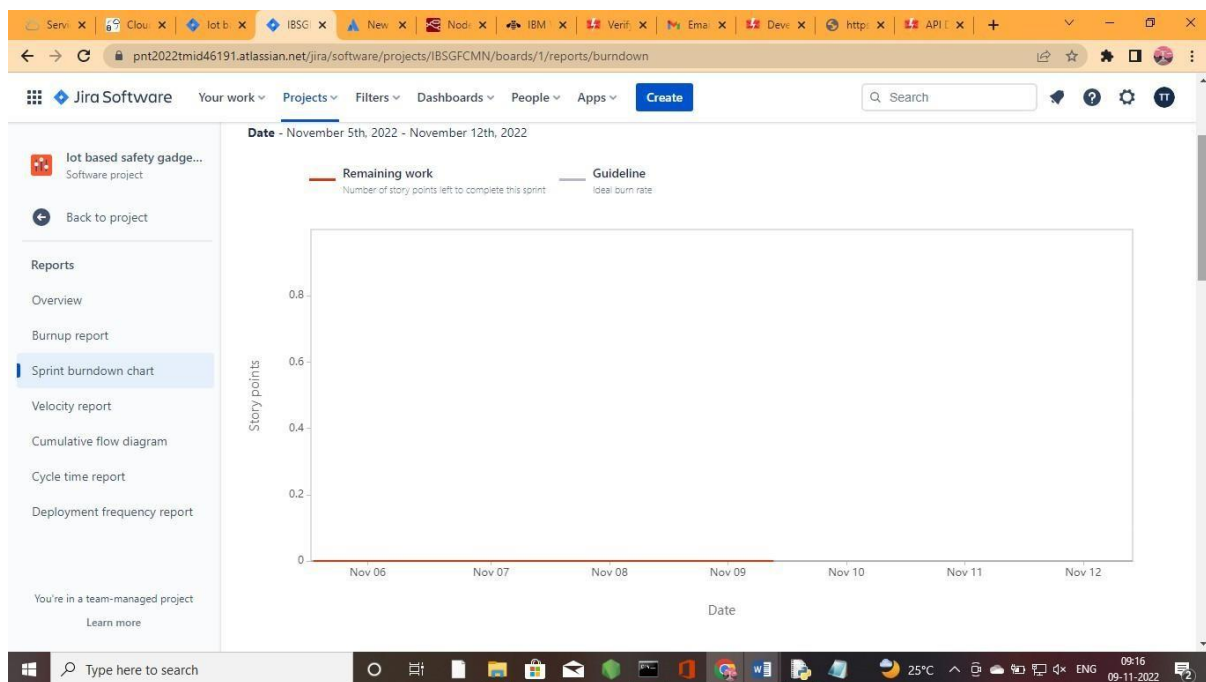
## USN 15: Develop the python code for publishing the location (latitude & longitude) to IBM IoT Platform

```
"IDLE Shell 3.11.0"
File Edit Shell Debug Options Window Help
Python 3.11.0 (main, Oct 24 2022, 18:26:48) [MSC v.1933 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>> import json
... import wiotp.sdk.device
... import NotImplemented
...
... myConfig = {
...     "orgid": "umjtfb",
...     "typeId": "NodeMCU",
...     "deviceId": "123456"
... },
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...         "token": "yfGKzLi'uaabvbnI)Xp"
...     }
... }
... client=wiotp.sdk.device.DeviceClient(config=myconfig, loghandlers=None)
... client.connect()
... while True:
...     name="Smartbridge"
...     #in area location
...     #latitude= 17.42225176
...     #longitude= 78.5458842
...     #out area location
...     latitude= 17.42225176
...     longitude= 78.5458842
...     myData={'name': name, 'lat':latitude, 'lon':longitude}
...     client.publishEvent(eventId="status",msgFormat="json", data=mydata, qos=0, onPublish=None)
...     print("Data published to IBM IoT platform:",myData)
...     time.sleep(5)
...     client.disconnect()
```

## VELOCITY GRAPH:



## BURNDOWN CHART:



ROAD MAP:

