

## PROJECT DEVELOPMENT PHASE

### SPRINT - 3

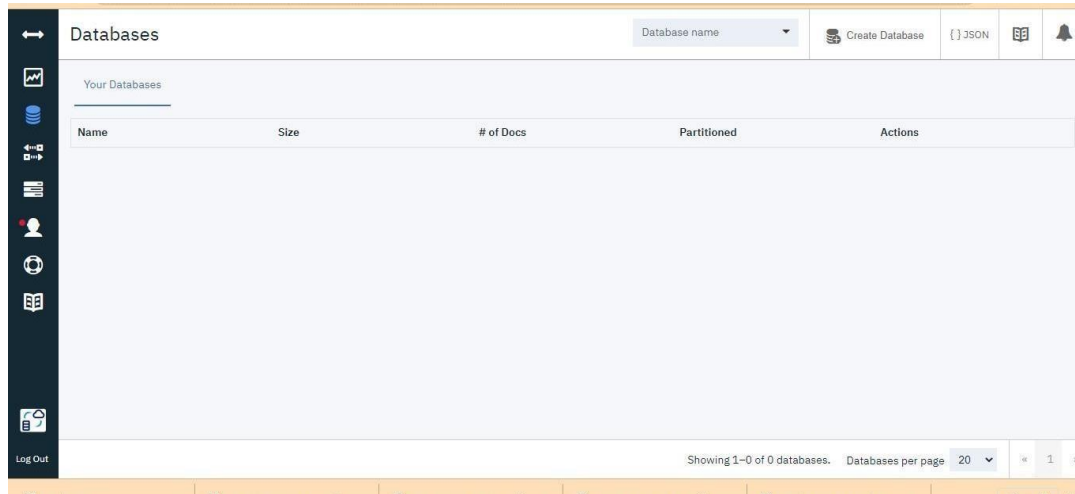
#### CREATE A DATABASE IN CLOUDANT DB AND DEVELOP THE PYTHON SCRIPT

DATE	29 OCTOBER 2022
TEAM ID	PNT2002TMID10533
PROJECT NAME	IOT BASED SAFETY GADGET FOR CHILD SAFETY MONITORING AND NOTIFICATION

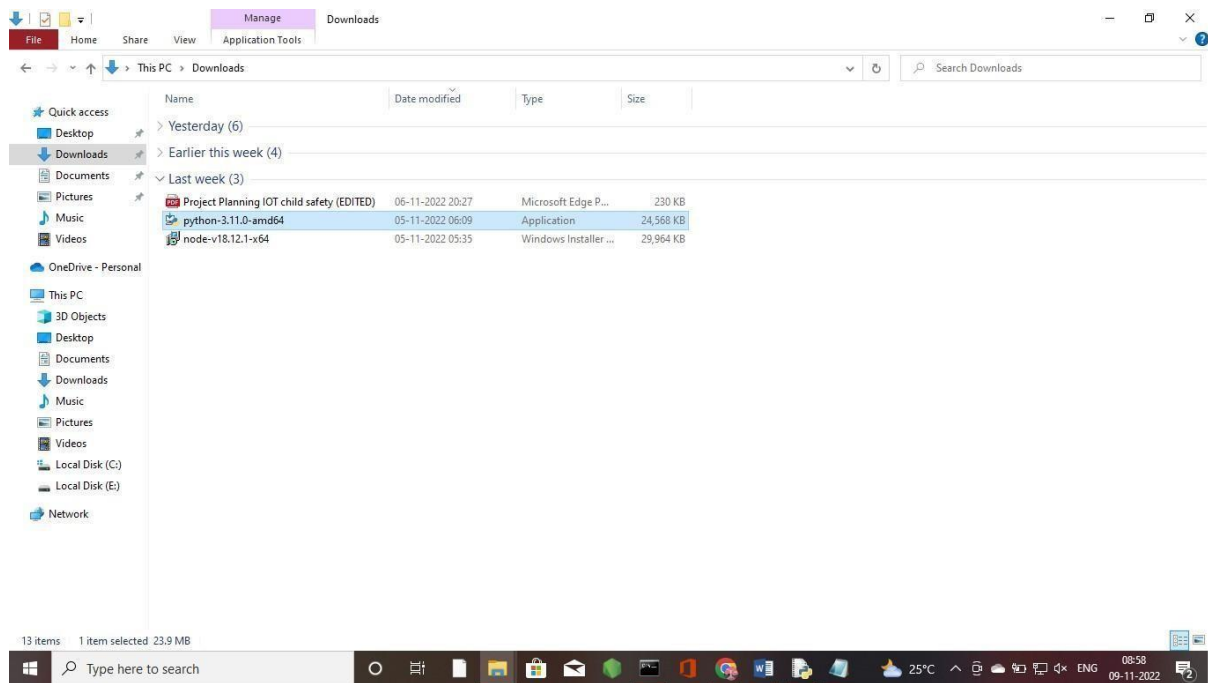
#### USN 11: Launch the Cloudant DB and Create database to store the location data

The screenshot displays the IBM Cloud console interface. At the top, there's a navigation bar with the IBM Cloud logo, a search bar, and various icons. Below this, the 'Resource list' shows the selected resource: 'node-red-rfky-2022--cloudant-1666966739396', which is in an 'Active' state. The left sidebar contains a 'Manage' section with options for 'Service credentials', 'Plan', and 'Connections'. The main content area is titled 'Overview' and shows 'Deployment details' for a Cloudant database. The details include the CRN, Location (London), External endpoint, External endpoint (preferred), and Authentication methods (IBM Cloud IAM and Cloudant credentials). A 'Launch Dashboard' button is visible in the top right corner of the details section.

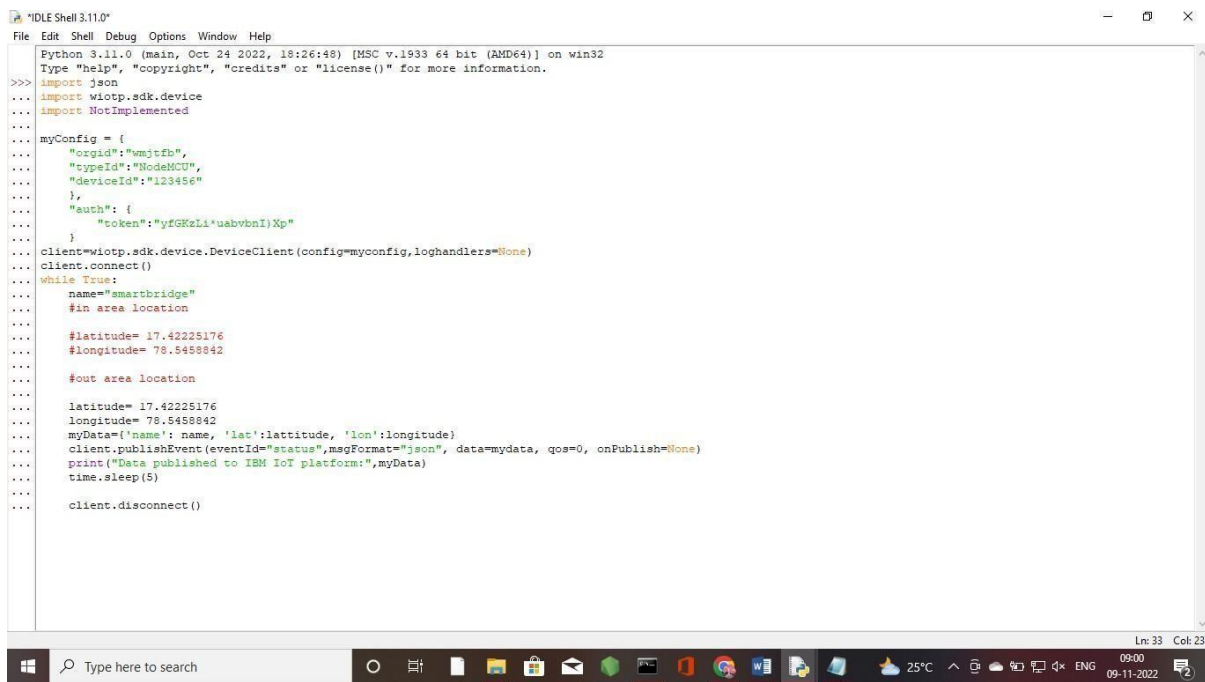
Deployment details	
CRN	crn:v1:bluemix:public:cloudantnosqldb:eu-gb:a/81704e207bbb454dbb467f57228f4cb8:f536beaf-861e-4a97-b1ac-d0d58df9e94e::
Location	London
External endpoint	<a href="https://b004d7a2-7180-47f1-a028-8828a305b068-bluemix.cloudant.com">https://b004d7a2-7180-47f1-a028-8828a305b068-bluemix.cloudant.com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



## USN 12: Install python software

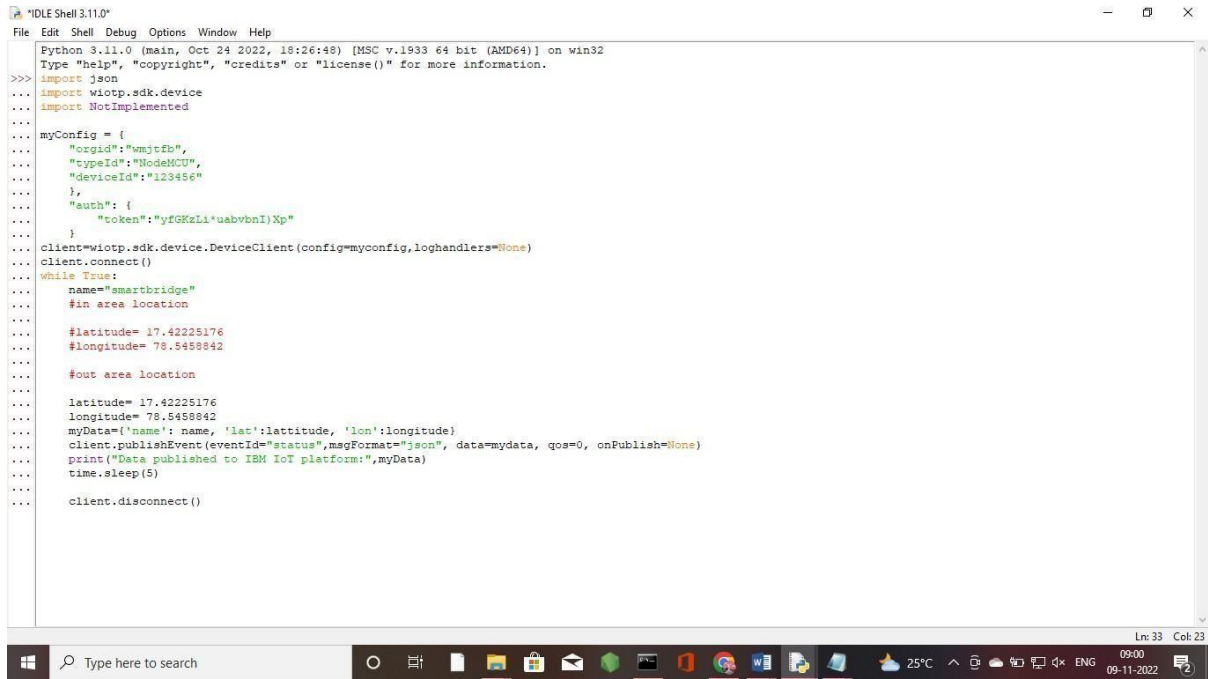


## USN 13: Develop the python scripts to publish details to IBM Iot platform



```
Python 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": "vmjtfb",
...     "typeId": "NodeMCU",
...     "deviceId": "123456"
... },
...     "auth": {
...         "token": "yFGKzLi*uaBvbnI)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()
```

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



```
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": "wmiTfb",
...     "typeId": "NodeMCU",
...     "deviceId": "123456"
... },
...     "auth": {
...         "token": "yFGKzLI-uabvbnIXp"
...     }
... }
... 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()
```

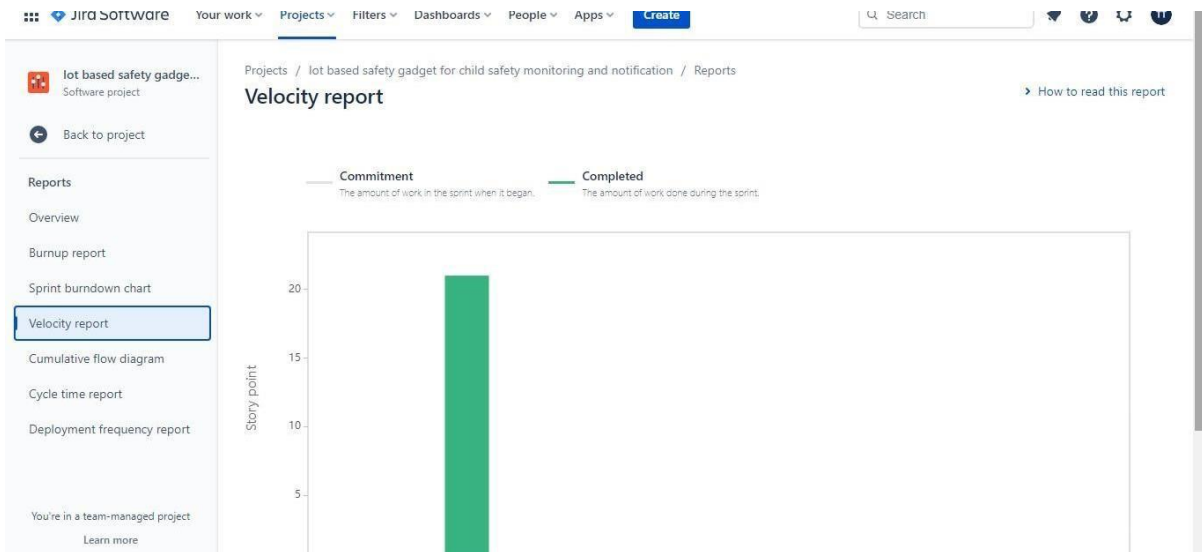
Ln: 33 Col: 23

Windows taskbar: Type here to search, 25°C, 09:00, 09-11-2022

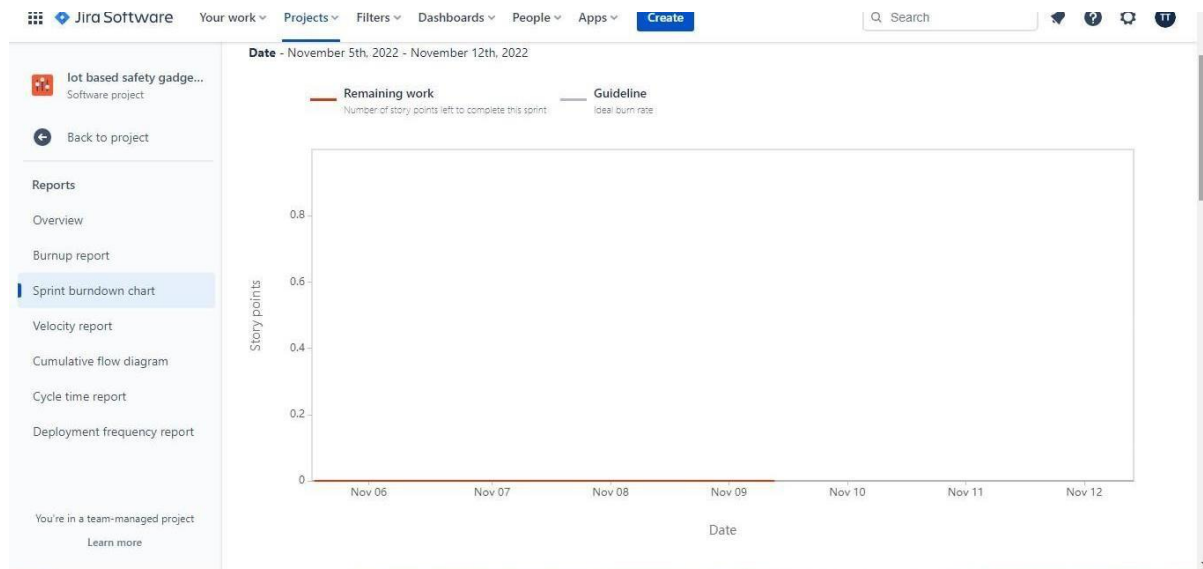
**USN 15: Develop the python code for publishing the location (latitude & longitude) to IBM IoT Platform**

```
"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": "wmjtfb",
...     "typeId": "NodeMCU",
...     "deviceId": "123456"
... },
...     "auth": {
...         "token": "yFGKzLi*uabvbnI)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:

