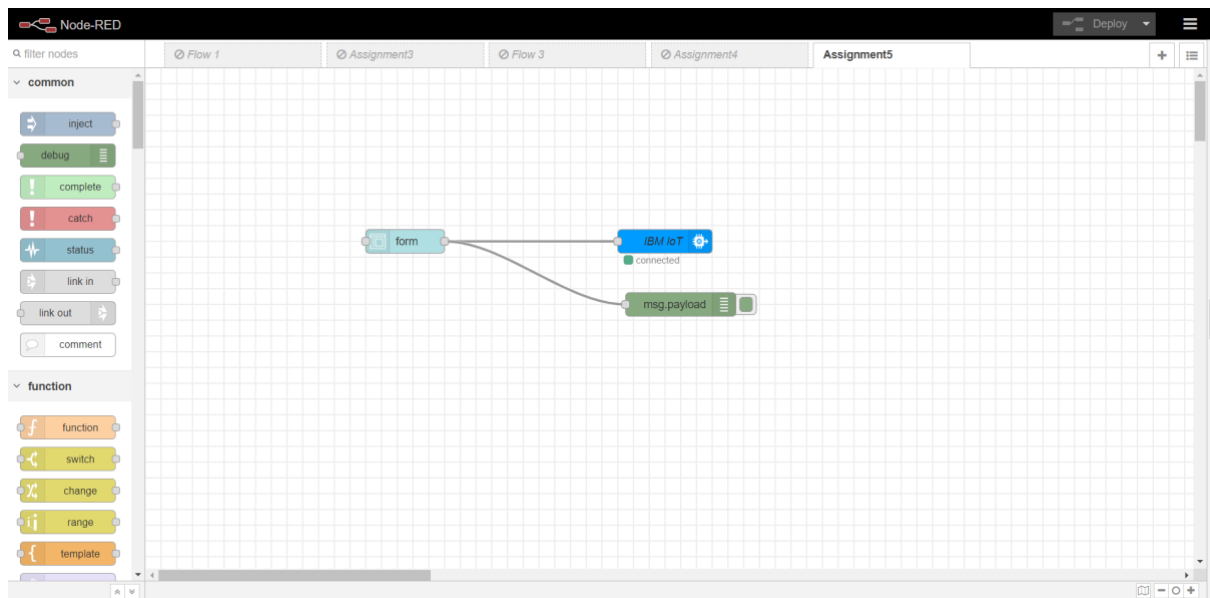**NAME:** Maram Tejaswanth Reddy

MAIL ID: tejaswanthmaram@gmail.com

ASSIGNMENT-5

AIM: To create a web dashboard to take user input for scheduling the pump controller (date & time). store the data in the Cloudant DB.

Node-RED Flow:

PROGRAM:

import wiotp.sdk.device

import time

import ibm_boto3

from ibmcloudant.cloudant_v1 import CloudantV1

from ibmcloudant import CouchDbSessionAuthenticator

from ibm_cloud_sdk_core.authenticators import BasicAuthenticator

```python
authenticator = BasicAuthenticator('apikey-v2-
1clsu5d5mnq5g4enmfd6flwzyl5c1ubkuwiwp5jbl9lv',
'bf9e839a06af9bfcf891e583565211c2') #username, password


service = CloudantV1(authenticator=authenticator)


service.set_service_url('https://apikey-v2-
1clsu5d5mnq5g4enmfd6flwzyl5c1ubkuwiwp5jbl9lv:bf9e839a06af9bfcf891e5835652
11c2@91b010f0-d17e-478b-95a8-7ca76d82b32d-
bluemix.cloudantnosqldb.appdomain.cloud')


myConfig = {
    "identity": {
        "orgId": "udbkdj",
        "typeId": "fourth_device",
        "deviceId":"Ziggy4"
    },
    "auth": {
        "token": "8042100942"
    }
}


def myCommandCallback(cmd):
    d = cmd.data["Date"]
    t = cmd.data["Time"]
    products_dc = {
    "Date" : d,
    "Time" : t
    }
```

```python
    response = service.post_document(db='sampledb1',
document=products_dc).get_result() #db = database name

    print(response)


client = wiotp.sdk.device.DeviceClient(config=myConfig, logHandlers=None)

client.connect()


while True:

    client.commandCallback = myCommandCallback

    time.sleep(2)

client.disconnect()
```
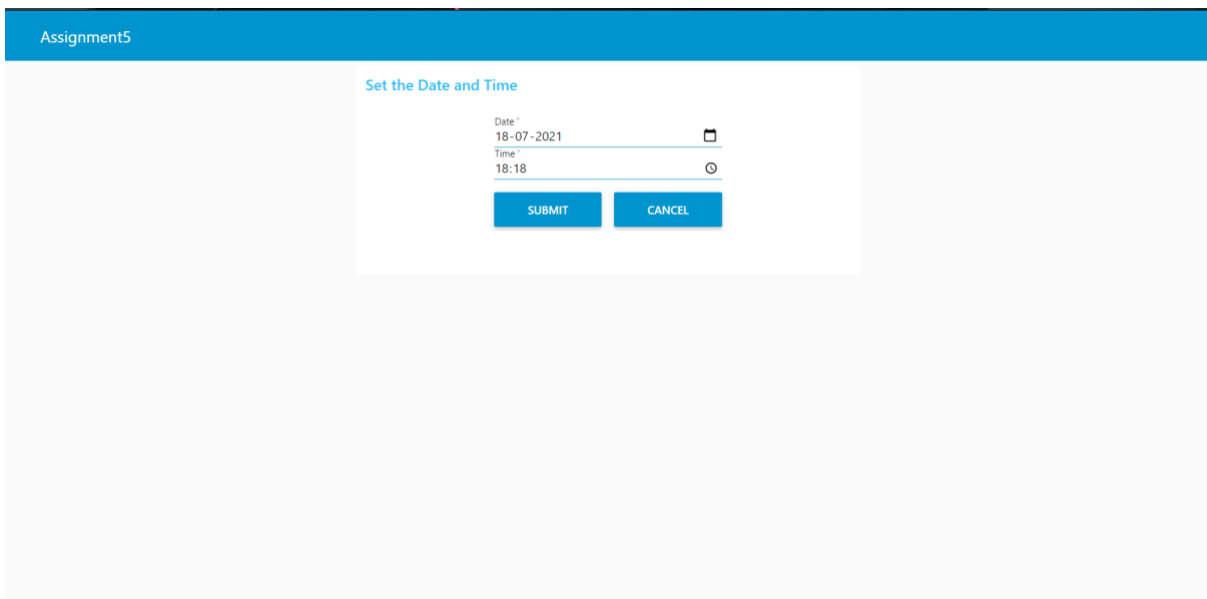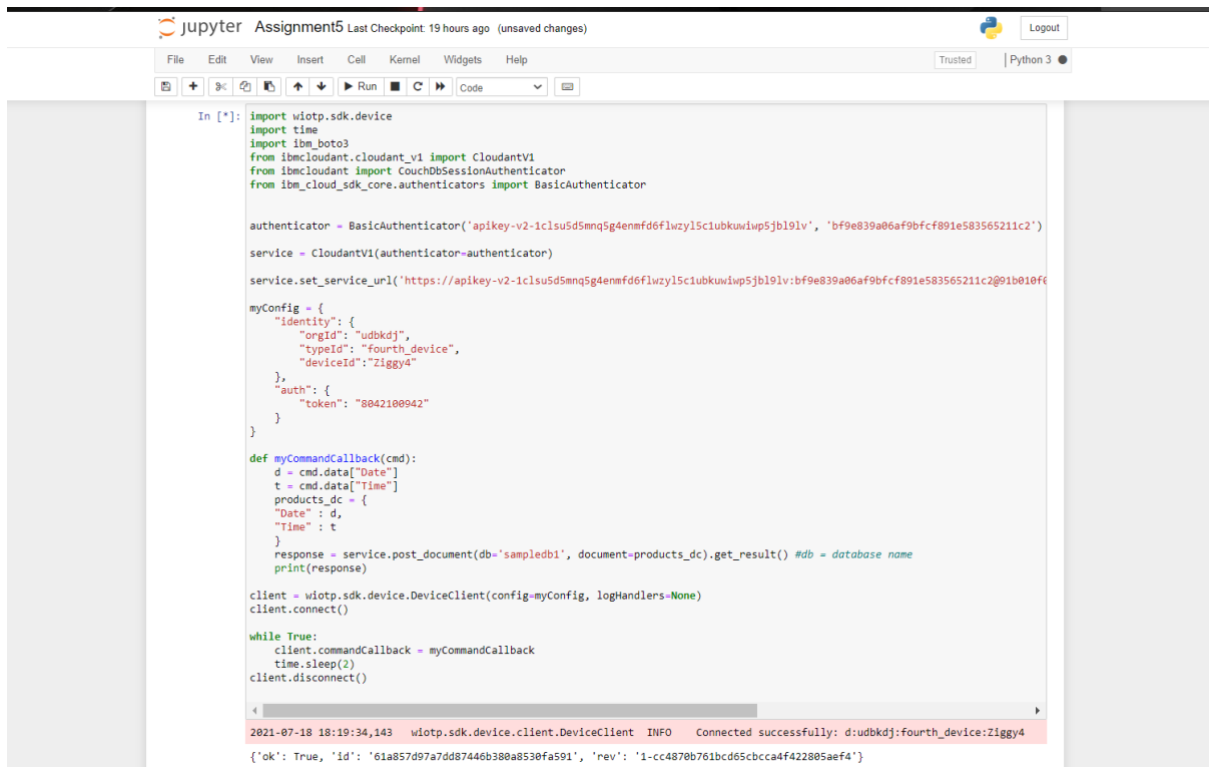
SIMULATION:

Web Dashboard:

Input given by the user from the web dashboard
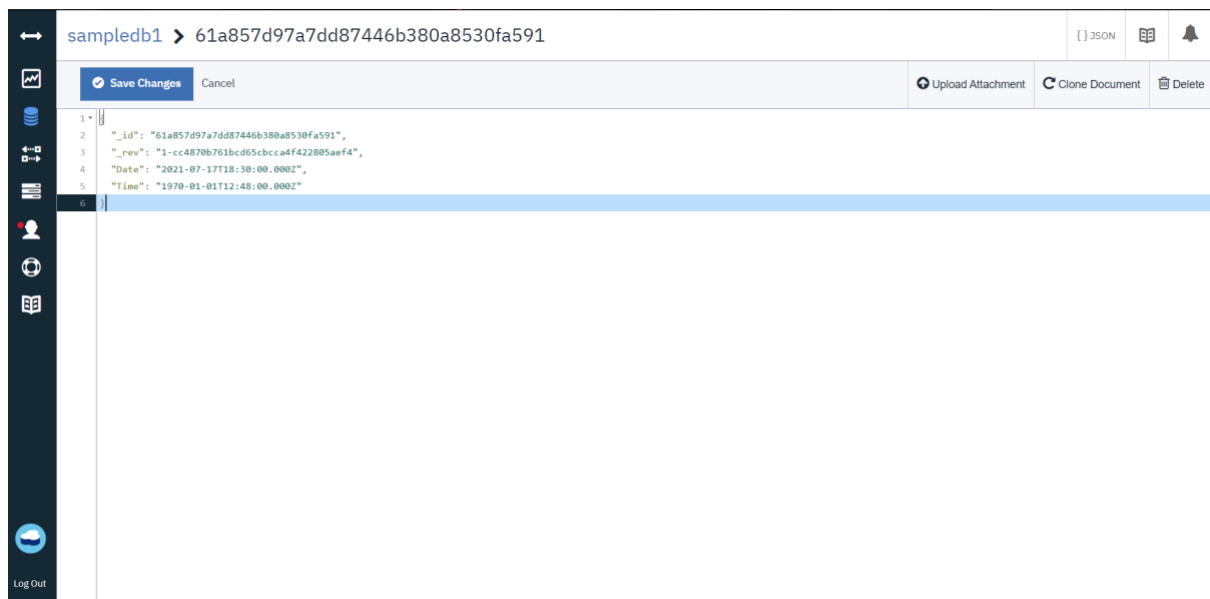
Pyhton(jupyter notebook):

Creating a document with the data in cloudant DB using the python code

Debug in Node-RED:
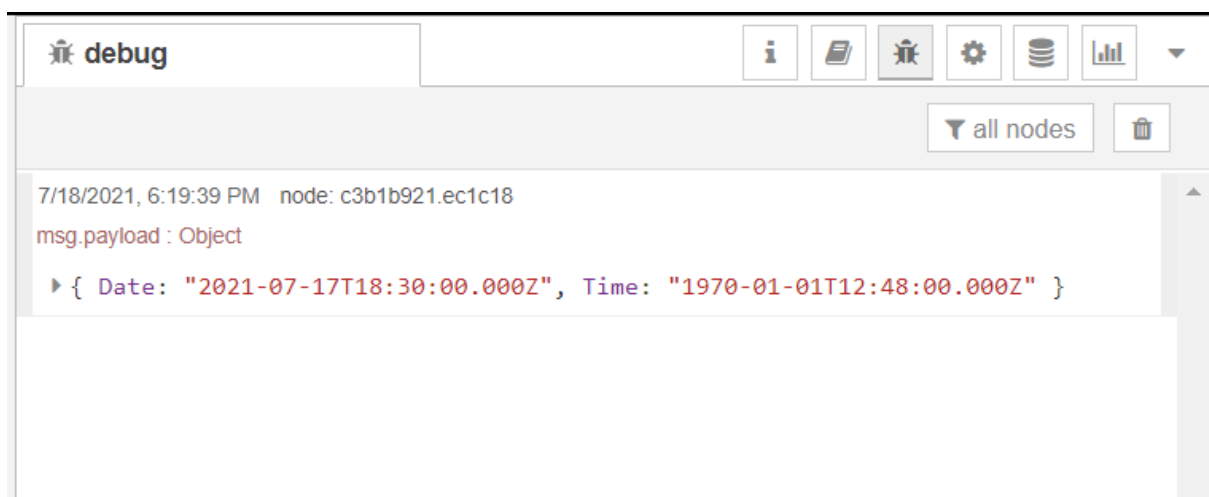
Msg can also be seen in the Node-RED debug menu

Document created in cloudant DB:

sampledb1 > 61a857d97a7dd87446b380a8530fa591

Save Changes   Cancel   Upload Attachment   Clone Document   Delete

1 {
2   "_id": "61a857d97a7dd87446b380a8530fa591",
3   "_rev": "1-cc4870b761bcd65cbcca4f422805aef4",
4   "Date": "2021-07-17T18:30:00.000Z",
5   "Time": "1970-01-01T12:48:00.000Z"
6 }

A document is uploaded to the cloudant DB with the given input of Date and Time.

RESULT: Hence, a web dashboard has been created to take user input for scheduling the pump controller (date & time). And a document has been created and stored in the cloudant DB with the input date and time data.