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# ASSIGNMENT 5

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Getting User Data from Web UI and posting it in the Cloudant Database



BY

ROHAN CHANDRASHEKAR  
rohan.c2020@vitstudent.ac.in

## CODE-

```
import wiotp.sdk.device
import time
import random

from ibmcloudant.cloudant_v1 import CloudantV1
from ibmcloudant import CouchDbSessionAuthenticator
from ibm_cloud_sdk_core.authenticators import BasicAuthenticator

myConfig = {
    "identity": {
        "orgId": "j8rgpm",
        "typeId": "First_Device",
        "deviceId": "123"
    },
    "auth": {
        "token": "First_Device_123"
    }
}

authenticator = BasicAuthenticator('apikey-v2-10xypw9nevga82oqb993uwcfdqgl748fcoiznj3jfrzn',
'3fb54d29a2d64e40f7a0657467d33a27')

service = CloudantV1(authenticator=authenticator)

service.set_service_url('https://apikey-v2-10xypw9nevga82oqb993uwcfdqgl748fcoiznj3jfrzn:3fb54d29a2d64e40f7a0657467d33a27@c6a728a6-a633-4d59-a8e9-c06a612f8176-bluemix.cloudantnosqldb.appdomain.cloud')

def myCommandCallback(cmd):
    print("DATE received from IBM IoT Platform: %s" % cmd.data['DATE'])
    print("TIME received from IBM IoT Platform: %s" % cmd.data['TIME'])
    date=cmd.data['DATE']
```

```
time=cmd.data['TIME']
```

```
products_doc = {
```

```
    "DATE" : date,
```

```
    "TIME" : time
```

```
}
```

```
response = service.post_document(db='sample', document=products_doc).get_result()
```

```
print(response)
```

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

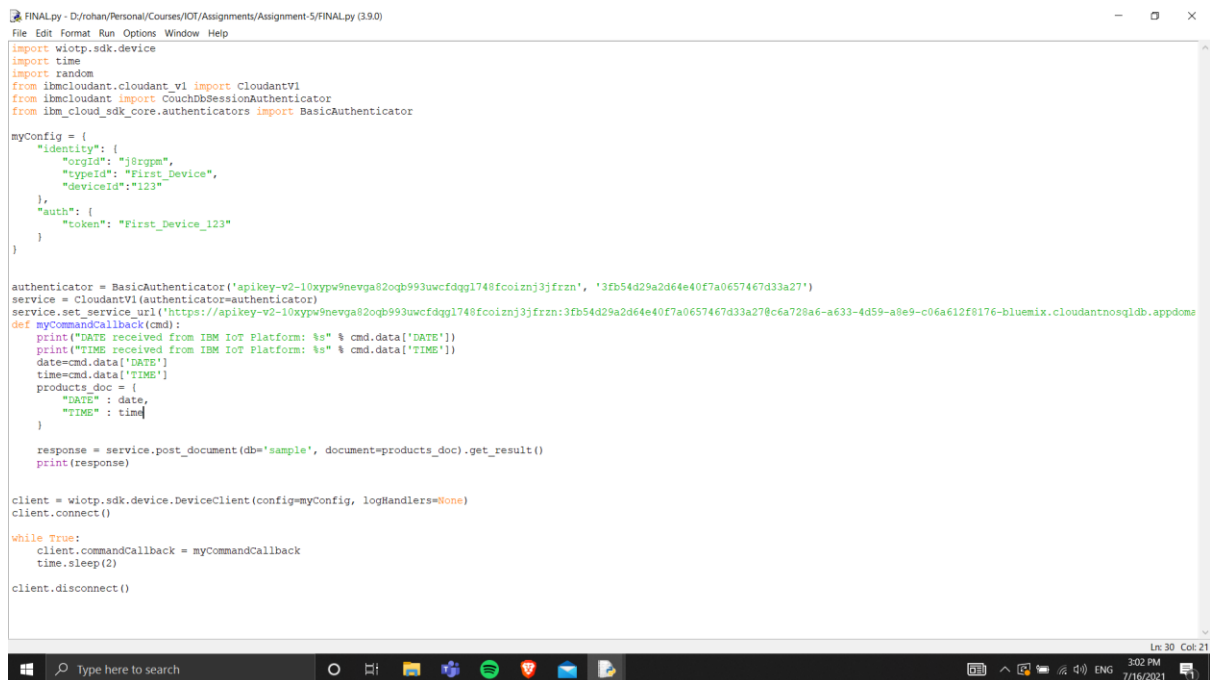
```
client.connect()
```

```
while True:
```

```
    client.commandCallback = myCommandCallback
```

```
    time.sleep(2)
```

```
client.disconnect()
```



```
FINAL.py - D:/rohan/Personal/Courses/IOT/Assignments/Assignment-5/FINAL.py (3.9.0)
File Edit Format Run Options Window Help

import wiotp.sdk.device
import time
import random
from ibmcloudant.cloudant_v1 import CloudantV1
from ibmcloudant import CouchDbSessionAuthenticator
from ibm_cloud_sdk_core.authenticators import BasicAuthenticator

myConfig = {
    "identity": {
        "orgId": "j8rpgm",
        "typeId": "First_Device",
        "deviceId": "123"
    },
    "auth": {
        "token": "First_Device_123"
    }
}

authenticator = BasicAuthenticator('apikey-v2-10xypw9newga82oqb993uwcfdqgl748fcoiznj3jfrzn', '3fb54d29a2d64e40f7a0657467d33a27')
service = CloudantV1(authenticator=authenticator)
service.set_service_url('https://apikey-v2-10xypw9newga82oqb993uwcfdqgl748fcoiznj3jfrzn:3fb54d29a2d64e40f7a0657467d33a278c6a728a6-a633-4d59-a8e9-c06a612f8176-bluemix.cloudantnosqldb.appdome')
def myCommandCallback(cmd):
    print("DATE received from IBM IoT Platform: %s" % cmd.data['DATE'])
    print("TIME received from IBM IoT Platform: %s" % cmd.data['TIME'])
    date=cmd.data['DATE']
    time=cmd.data['TIME']
    products_doc = {
        "DATE" : date,
        "TIME" : time
    }
    response = service.post_document(db='sample', document=products_doc).get_result()
    print(response)

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

while True:
    client.commandCallback = myCommandCallback
    time.sleep(2)

client.disconnect()
```

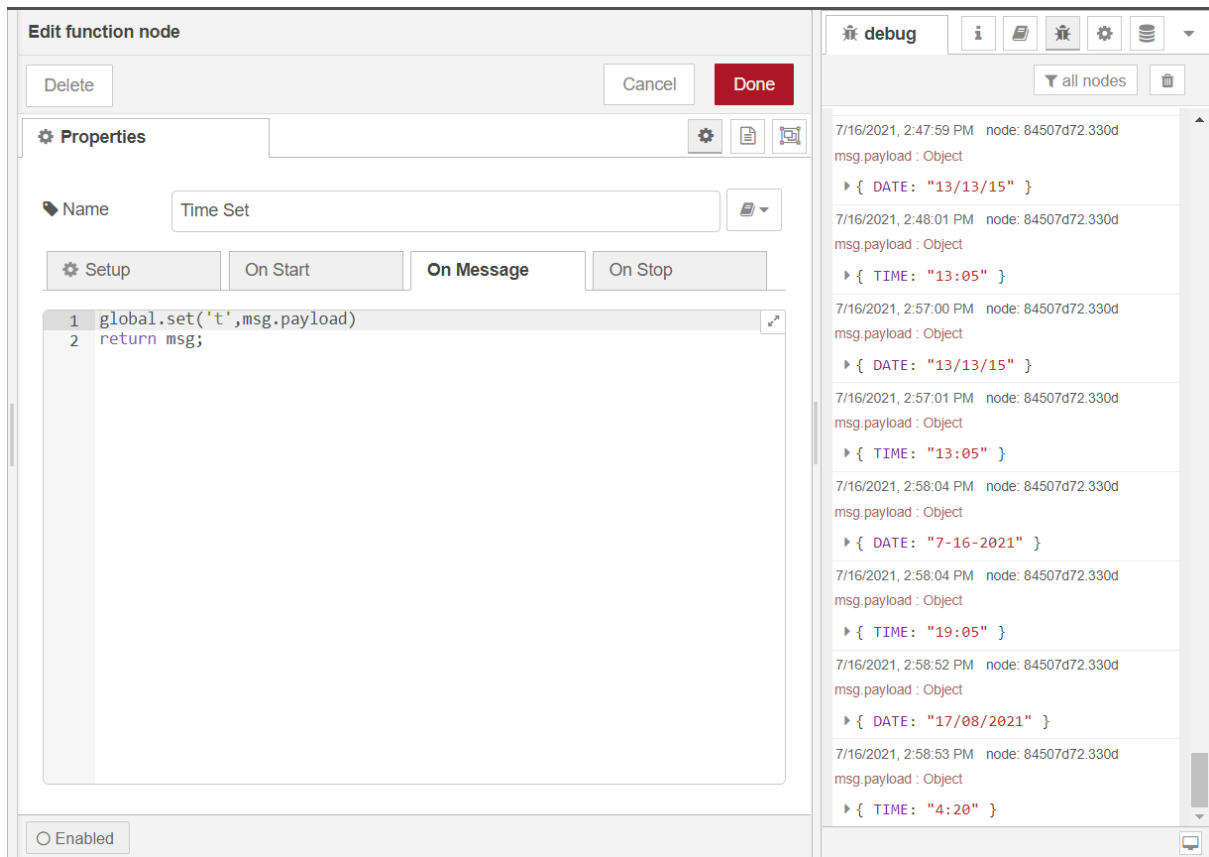
# NODE RED CONFIGURATION-

The screenshot shows the Node-RED web interface in a browser. The flow 'Assignment-5' is active. It starts with an 'IBM IoT' node (connected) that splits into two paths. The top path goes through a 'DATE' node, then a 'Date Set' function node, and finally a 'msg.payload' node. The bottom path goes through a 'TIME' node, then a 'Time Set' function node, and finally a 'function' node. Both paths converge at the 'function' node, which then connects to another 'IBM IoT' node (connected). The right sidebar shows the 'debug' console with a list of messages, including timestamps, node IDs, and payloads like { DATE: "13/13/15" } and { TIME: "13:05" }.

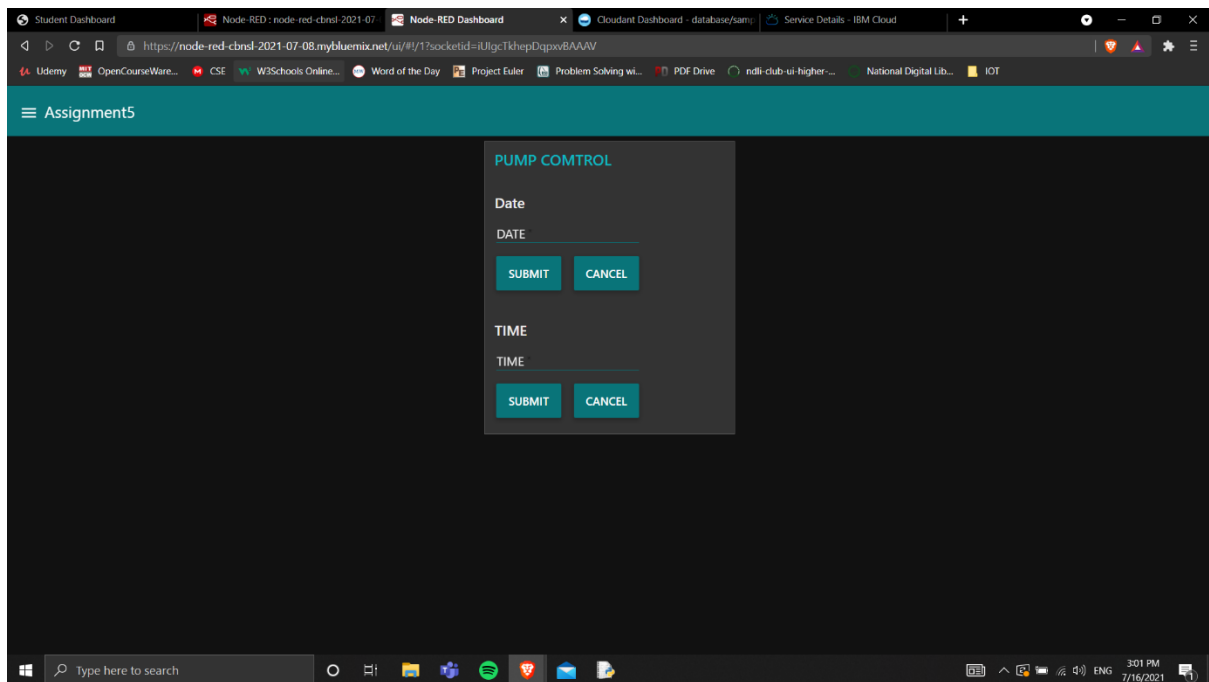
The screenshot shows the 'Edit function node' dialog for the 'Date Set' node. The 'Name' field is set to 'Date Set'. The 'On Message' tab is selected. The code in the editor is:

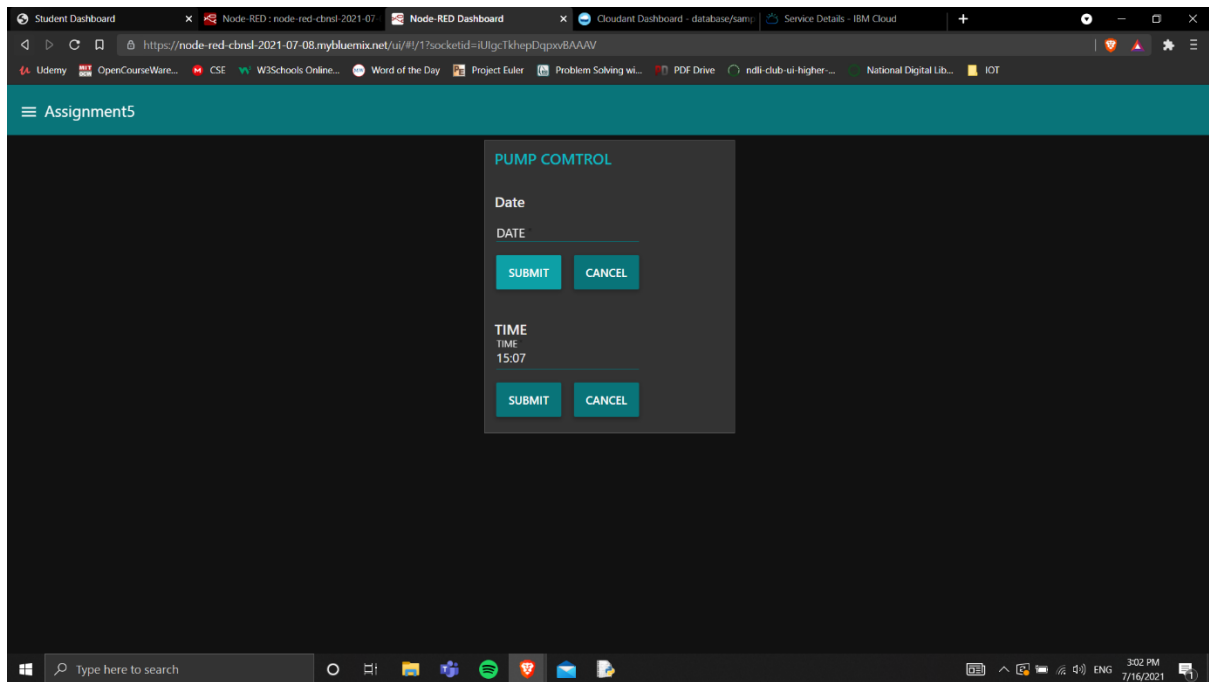
```
1 global.set('d',msg.payload)
2 return msg;
```

The 'debug' console on the right shows the same list of messages as the first screenshot, including timestamps, node IDs, and payloads like { DATE: "13/13/15" } and { TIME: "13:05" }.



## WEB UI-





## PYTHON SHELL OUTPUT-

\*Python 3.9.0 Shell\*

File Edit Shell Debug Options Window Help

Python 3.9.0 (tags/v3.9.0:9cf6752, Oct 5 2020, 15:34:40) [MSC v.1927 64 bit (AMD64)] on win32

Type "help", "copyright", "credits" or "license()" for more information.

>>>

===== RESTART: D:/rohan/Personal/Courses/IOT/Assignments/Assignment-4/2.py =====

2021-07-15 15:57:54,559 wiotp.sdk.device.client.DeviceClient INFO Connected successfully: d:j8rgpm:First\_Device:123

Message received from IBM IoT Platform: hi

Data Received :

hi

Message received from IBM IoT Platform: test1

Data Received :

test1

Message received from IBM IoT Platform: test1

Data Received :

test1

Message received from IBM IoT Platform: test2

Data Received :

test2

Message received from IBM IoT Platform: this is working

Data Received :

this is working

Message received from IBM IoT Platform: nice

Data Received :

nice

Message received from IBM IoT Platform: spent a lot of time on this assignment

Data Received :

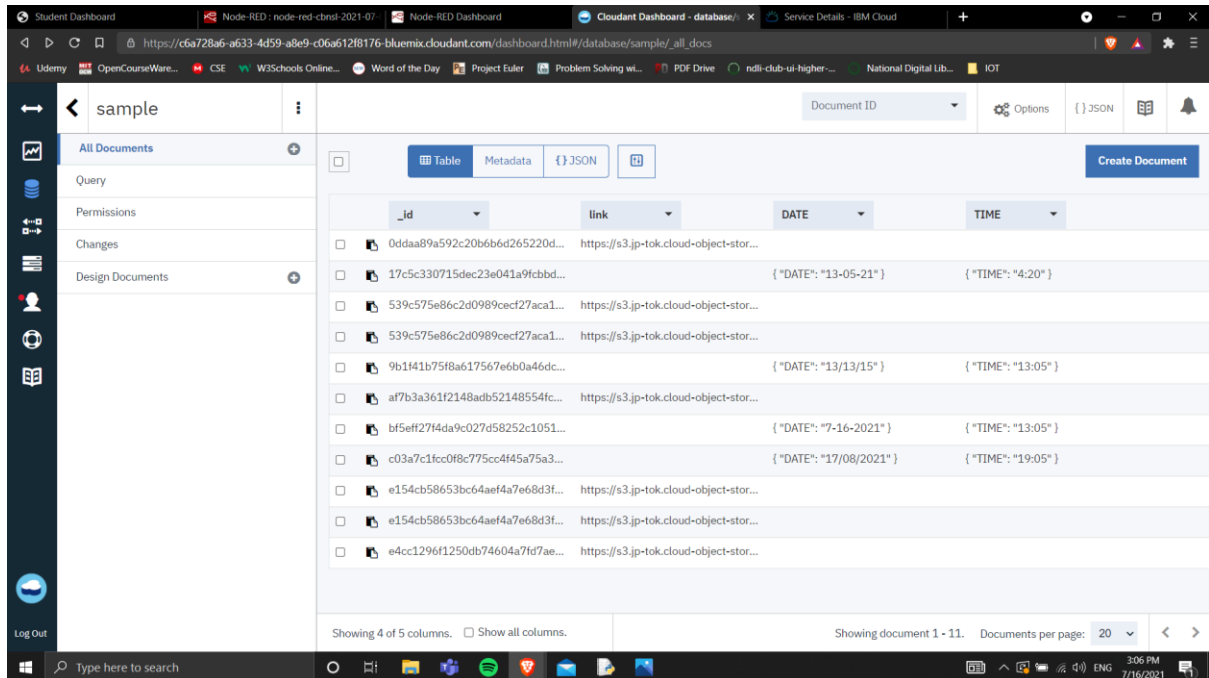
spent a lot of time on this assignment

Message received from IBM IoT Platform: final message

Data Received :

final message

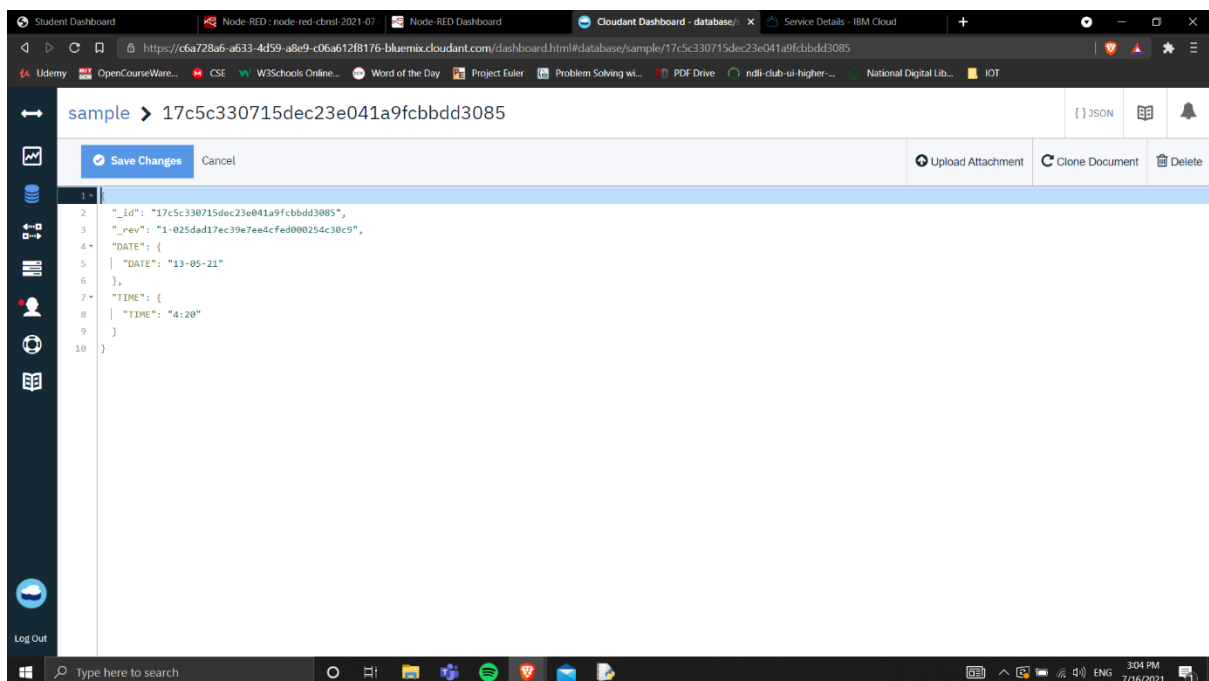
# CLOUDANT DATABASE-



The screenshot shows the Cloudant Dashboard interface. The left sidebar contains navigation options: All Documents, Query, Permissions, Changes, and Design Documents. The main area displays a table of documents. The table has columns for \_id, link, DATE, and TIME. The first five documents are visible, showing their IDs, links, and timestamps.

_id	link	DATE	TIME
0ddaa89a592c20b6b6d265220d...	https://s3.jp-tok.cloud-object-stor...		
17c5c330715dec23e041a9fcbdd3085		{ "DATE": "13-05-21" }	{ "TIME": "4:20" }
539c575e86c2d0989cecf27aca1...	https://s3.jp-tok.cloud-object-stor...		
539c575e86c2d0989cecf27aca1...	https://s3.jp-tok.cloud-object-stor...		
9b141b75f8a617567e6b0a46dc...		{ "DATE": "13/13/15" }	{ "TIME": "13:05" }
af7b3a361f2148adb52148554fc...	https://s3.jp-tok.cloud-object-stor...		
bf5eff27f4da9c027d58252c1051...		{ "DATE": "7-16-2021" }	{ "TIME": "13:05" }
c03a7c1fcc0f8c775cc445a75a3...		{ "DATE": "17/08/2021" }	{ "TIME": "19:05" }
e154cb58653bc64aef4a7e68d3f...	https://s3.jp-tok.cloud-object-stor...		
e154cb58653bc64aef4a7e68d3f...	https://s3.jp-tok.cloud-object-stor...		
e4cc1296f1250db74604a7fd7ae...	https://s3.jp-tok.cloud-object-stor...		

Showing 4 of 5 columns. ☐ Show all columns. Showing document 1 - 11. Documents per page: 20



The screenshot shows the Cloudant Dashboard interface with a document selected. The document ID is 17c5c330715dec23e041a9fcbdd3085. The document content is displayed in a JSON format. The document has a DATE field with the value "13-05-21" and a TIME field with the value "4:20".

```
{
  "_id": "17c5c330715dec23e041a9fcbdd3085",
  "_rev": "1-025dad17ec39e7ee4cfed000254c30c9",
  "DATE": {
    | "DATE": "13-05-21"
  },
  "TIME": {
    | "TIME": "4:20"
  }
}
```

Student Dashboard x Node-RED: node-red-ctrl-2021-07 x Node-RED Dashboard x Cloudant Dashboard - database/ x Service Details - IBM Cloud

https://c6a728a6-a633-4d59-a8e9-c06a612f8176-bluemix.cloudant.com/dashboard.html#database/sample/9b1f41b75f8a617567e6b0a46dcc1efd

sample > 9b1f41b75f8a617567e6b0a46dcc1efd

Save Changes Cancel Upload Attachment Clone Document Delete

```
1- {
2  "_id": "9b1f41b75f8a617567e6b0a46dcc1efd",
3  "_rev": "1-02610ff2e97f42232d8e2ba421c997e0",
4  "DATE": {
5    "DATE": "13/13/15"
6  },
7  "TIME": {
8    "TIME": "13:05"
9  }
10 }
```

Log Out

Type here to search

3:05 PM 7/16/2021

Student Dashboard x Node-RED: node-red-ctrl-2021-07 x Node-RED Dashboard x Cloudant Dashboard - database/ x Service Details - IBM Cloud

https://c6a728a6-a633-4d59-a8e9-c06a612f8176-bluemix.cloudant.com/dashboard.html#database/sample/c03a7c1fcc0f8c775cc4f45a75a3a269

sample > c03a7c1fcc0f8c775cc4f45a75a3a269

Save Changes Cancel Upload Attachment Clone Document Delete

```
1- {
2  "_id": "c03a7c1fcc0f8c775cc4f45a75a3a269",
3  "_rev": "1-b9438251b95a8d59ab63dc2667bc06da",
4  "DATE": {
5    "DATE": "17/08/2021"
6  },
7  "TIME": {
8    "TIME": "19:05"
9  }
10 }
```

Log Out

Type here to search

3:05 PM 7/16/2021