Topic:

Smart Solution for Railways Team ID:

PNT2022TMID51678

SPRINT – 4 PROCEDURE:

- **Step 1:** Develop a PYTHON script to scan the QR code.
- **Step 2:** Connect the python code to IBM Cloudant using the credentials.
- **Step 3:** Run the program.

PYTHON CODE FOR GPS:

import cv2 import numpy as np import time import pyzbar.pyzbar as pyzbar

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

authenticator = BasicAuthenticator ('apikey-v2-125rwcp4ifi6zz2ly1cq0kakyjn98du2 ysgc72h53lzi', 'af693938842290ecc254461754447b5')

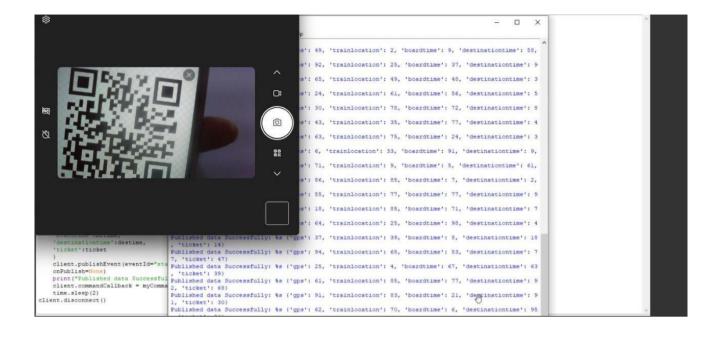
service = CloudantV1 (authenticator = authenticator)

service.set_service_url ('https://apikey-v2-125rwcp4ifi6zz2ly1cq0kakyjn98du2ysg c72hl53zi:af693938842290ec2c254461754447b45@82d87499-4395-4f46-a190-6 a186bee5051 – bluemix.cloudantnosqldb.appdomain.cloud')

cap = cv2.VideoCapture(0)

```
while
True:
      _, frame = cap.read() decodedObjects =
      pyzbar.decode(frame)
for obj in
decodedObjects:
      #print ("Data", obj.data)
      a = obj.data.decode('UTF-8')
      cv2.putText(frame, "Ticket", (50,50), font, 2, (255,0,0), 3)
      #print (a)
try:
      response = service .get_document(db = 'booking', doc_id = a).get_result
      print (response)
      time.sleep(5)
except Exception as
e:
      print ("NOT A VALID TICKET!")
      time.sleep(5)
cv2.imshow("Frame", frame)
if cv2.waitKey(1) & 0xFF ==
ord('q'):
      break
cap.release()
```

cv2.destroyAllWindov	(/		
client.disconnect()			



```
File Edit Format Run Options Window Help
File Edit Format Run Options
#IBM Watson IOT Platform
pipp install wicep-adk
import water
import random
myConfig = {
    "identity": {
    "orgld: "mppath",
    "rypeld": "NodeMcUt",
    "deviceId": "12345"
    },
}
                                                                                                                                     *IDLE Shell 3.9.1*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        File Edit Shell Debug Options Window Help
                                                                                                                                    8, 'ticket': 99)

Published data Successfully: %s ('gps': 49, 'trainlocation': 2, 'boardtime': 9, 'destinationtime': 58, 'ticket': 23)
                                                                                                                                     Published data Successfully: %s ('gps': 92, 'trainlocation': 25, 'boardtime': 37, 'destinationtime': 9 1, 'ticket': 28)
                                                                                                                                    1, 'ticket': 28}
Published data Successfully: %s {'gps': 65, 'trainlocation': 49, 'boardtime': 48, 'destinationtime': 3
4, 'ticket': 68}
                                                                                                                                   Published data Successfully: %s ('gps': 24, 'trainlocation': 61, 'boardtime': 56, 'destinationtime': 5
1, 'ticket': 15)
Published data Successfully: %s ('gps': 30, 'trainlocation': 78, 'boardtime': 72, 'destinationtime': 8
6, 'ticket': 69)
              1,
   "auth": {
"token": "12345678910"
                                                                                                                                 l, 'ticket': 15}
Published data Successfully: %s ('gps': 30, 'trainlocation': 78, 'boardtime': 72, 'destinationtime': 8
6, 'ticket': 69}
Published data Successfully: %s ('gps': 43, 'trainlocation': 35, 'boardtime': 77, 'destinationtime': 4
0, 'ticket': 16}
Published data Successfully: %s ('gps': 63, 'trainlocation': 75, 'boardtime': 24, 'destinationtime': 3
4, 'ticket': 83)
Published data Successfully: %s ('gps': 6, 'trainlocation': 33, 'boardtime': 91, 'destinationtime': 9,
'ticket': 20)
Published data Successfully: %s ('gps': 71, 'trainlocation': 9, 'boardtime': 5, 'destinationtime': 61,
'ticket': 72)
Published data Successfully: %s ('gps': 86, 'trainlocation': 85, 'boardtime': 7, 'destinationtime': 2,
'ticket': 63)
Published data Successfully: %s ('gps': 55, 'trainlocation': 77, 'boardtime': 77, 'destinationtime': 9

| 'ticket': 29
| Published data Successfully: %s ('gps': 18, 'trainlocation': 85, 'boardtime': 71, 'destinationtime': 7
/ 'ticket': 34)

Published data Successfully: %s ('gps': 64, 'trainlocation': 25, 'boardtime': 98, 'destinationtime': 4

| 'ticket': 70)
Published data Successfully: %s ('gps': 94, 'trainlocation': 39, 'boardtime': 8, 'destinationtime': 18
/ 'ticket': 14)

Published data Successfully: %s ('gps': 94, 'trainlocation': 4, 'boardtime': 67, 'destinationtime': 7
/ 'ticket': 39)

Published data Successfully: %s ('gps': 61, 'trainlocation': 83, 'boardtime': 77, 'destinationtime': 9
| 'ticket': 39|

Published data Successfully: %s ('gps': 91, 'trainlocation': 83, 'boardtime': 77, 'destinationtime': 9
| 'ticket': 68|

Published data Successfully: %s ('gps': 91, 'trainlocation': 70, 'boardtime': 6, 'destinationtime': 9
| 'ticket': 80|

Published data Successfully: %s ('gps': 61, 'trainlocation': 70, 'boardtime': 6, 'destinationtime': 9
| 'ticket': 80|

Published data Successfully: %s ('gps': 62, 'trainlocation': 70, 'boardtime': 6, 'destinationtime': 9
| 'ticket': 80|
}
def myCommandCallback(cmd):
    print("Message received from IBM
    m=cmd.data['command']
client = wiotp.sdk.device.DeviceClie
client.connect()
               True:
gps=random.randint(0,100)
              loc=random.randint(0,100)
brtime=random.randint(0,100)
destime=random.randint(0,100)
ticket=random.randint(0,100)
               myData={
                 'gps':gps,
'trainlocation':loc,
'boardtime':brtime,
                  destinationtime':destime,
'ticket':ticket
                 ,
client.publishEvent(eventId="sta
               onPublish=None)
print("Published data Successful
client.commandCallback = myComma
                 time.sleep(2)
 client.disconnect()
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