

## SPRINT-3

Date	15 NOVEMBER 2022
Team ID	PNT2022TMID37886
Project Name	Project – SMART SOLUTIONS FOR RAILWAYS

### PROCEDURE:

Step1: Develop a python script to scan the QR code

Step2: Connect the python code to IBM Cloudant using the credentials

Step3: Run the program

### PYTHON SCRIPT TO SCAN QR CODE:

```
import cv2
import numpy as np
import time
import pyzbar.pyzbar as pyzbar
from ibmcloudant.cloudant_v1 import CloudantV1
from ibmcloudant import CouchDbSessionAuthenticator
from ibm_cloud_sdk_core.authenticators import BasicAuthenticator

authenticator = BasicAuthenticator('apikey-v2-
e379zksq0z7nhqjabgd78o37jq5vtyk7xab8iueumb','b06d564c2d1b9cdfb31fc86b7de1684e')
service=CloudantV1(authenticator=authenticator)
service.set_service_url('https://apikey-v2-
e379zksq0z7nhqjabgd78o37jq5vtyk7xab8iueumb:b06d564c2d1b9cdfb31fc86b7de1684e@0000ea1a-955f-
48ed-aeb9-e6679f14408a-bluemix.cloudantnosqldb.appdomain.cloud')

cap = cv2.VideoCapture(0)
font = cv2.FONT_HERSHEY_PLAIN

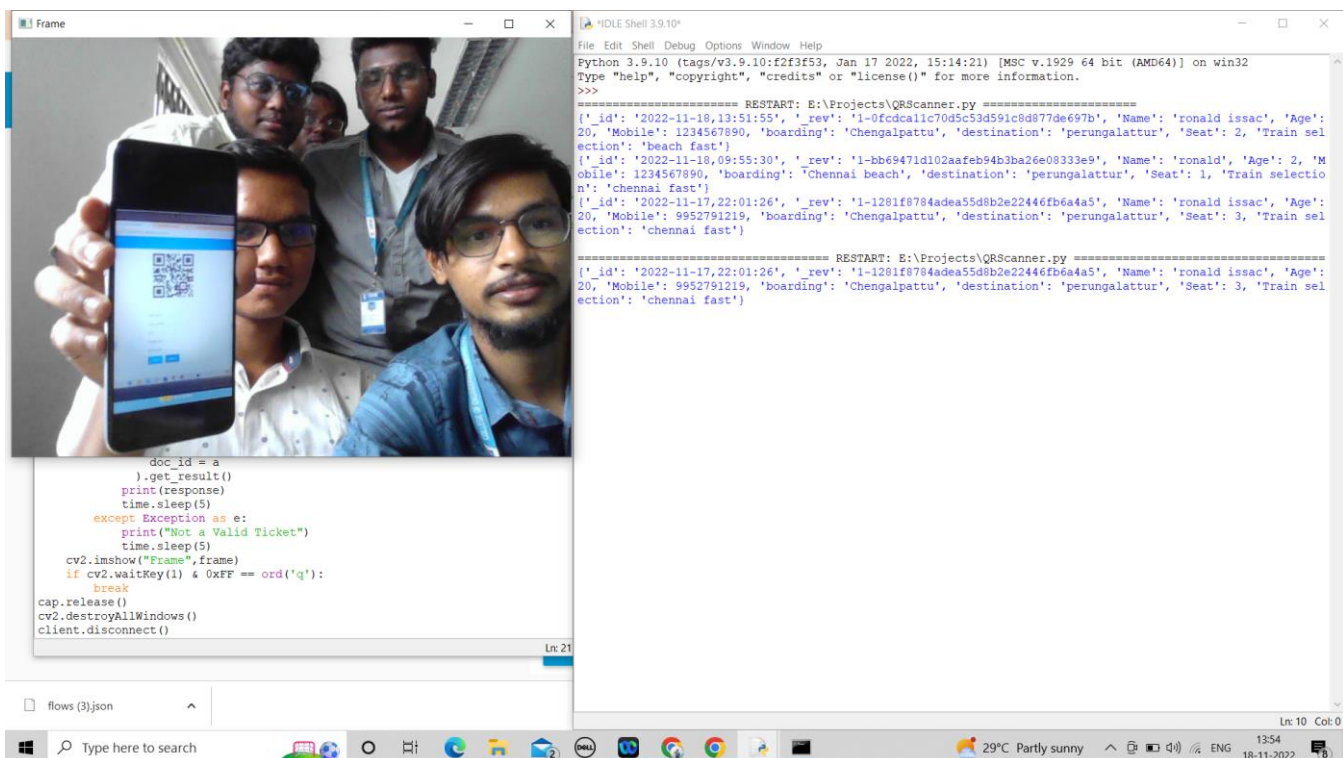
while True:
    __, frame=cap.read()
    decodedObjects=pyzbar.decode(frame)
    for obj in decodedObjects:
        #print("Data",obj.data)
        a=obj.data.decode('UTF-8')
        cv2.putText(frame,"Ticket",(50,50),font,2,
            (255,0,0),3)
        #print(a)
        try:
            response=service.get_document(
                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.destroyAllWindows()
client.disconnect()

```

## PYTHON CODE OUTPUT:



## QR CODE DETAILS:

```
*IDLE Shell 3.9.10*
File Edit Shell Debug Options Window Help
Python 3.9.10 (tags/v3.9.10:f2f3f53, Jan 17 2022, 15:14:21) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: E:\Projects\QRScanner.py =====
{'_id': '2022-11-18,13:51:55', '_rev': '1-0fcdca1c70d5c53d591c8d877de697b', 'Name': 'ronald issac', 'Age': 20, 'Mobile': 1234567890, 'boarding': 'Chengalpattu', 'destination': 'perungalatu', 'Seat': 2, 'Train selection': 'beach fast'}
{'_id': '2022-11-18,09:55:30', '_rev': '1-bb69471d102aaf6b94b3ba26e08333e9', 'Name': 'ronald', 'Age': 2, 'Mobile': 1234567890, 'boarding': 'Chennai beach', 'destination': 'perungalattu', 'Seat': 1, 'Train selection': 'Chennai fast'}
{'_id': '2022-11-17,22:01:26', '_rev': '1-1281f8784adea55d8b2e22446fb6a4a5', 'Name': 'ronald issac', 'Age': 20, 'Mobile': 9952791219, 'boarding': 'Chengalpattu', 'destination': 'perungalatu', 'Seat': 3, 'Train selection': 'chennai fast'}

===== RESTART: E:\Projects\QRScanner.py =====
{'_id': '2022-11-17,22:01:26', '_rev': '1-1281f8784adea55d8b2e22446fb6a4a5', 'Name': 'ronald issac', 'Age': 20, 'Mobile': 9952791219, 'boarding': 'Chengalpattu', 'destination': 'perungalatu', 'Seat': 3, 'Train selection': 'chennai fast'}
{'_id': '2022-11-18,13:51:55', '_rev': '1-0fcdca1c70d5c53d591c8d877de697b', 'Name': 'ronald issac', 'Age': 20, 'Mobile': 1234567890, 'boarding': 'Chengalpattu', 'destination': 'perungalatu', 'Seat': 2, 'Train selection': 'beach fast'}
|
```

## DATA STORED IN CLOUDANT:

The screenshot shows a web browser window with the URL <https://0000ea1a-955f-48ed-aeb9-e6679f14408a-bluemix.cloudant.com/dashboard.html#database/booking/2022-11-18%2C13%3A51%3A55>. The browser's taskbar at the top shows several open applications, including Node-RED and IBM Watson IoT Platform. The Cloudant dashboard interface is visible, with a breadcrumb trail 'booking > 2022-11-18,13:51:55'. On the left, there is a sidebar with icons for various database operations. The main area displays a JSON document with the following fields:

```
1  
2 {  
3   "_id": "2022-11-18,13:51:55",  
4   "_rev": "1-0fcdca11c70d5c53d591c8d877de697b",  
5   "Name": "ronald issac",  
6   "Age": 20,  
7   "Mobile": 1234567890,  
8   "boarding": "Chengalpattu",  
9   "destination": "perungalattur",  
10  "Seat": 2,  
11  "Train selection": "beach fast"  
}
```

At the bottom of the dashboard, there are buttons for 'Save Changes', 'Cancel', 'Upload Attachment', 'Clone Document', and 'Delete'. The system tray at the bottom of the screen shows the date and time as 16:06 on 18-11-2022.