

SPRINT – 3

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Project Name	Project –Smart Solutions for Railways

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 SCRIPT TO SCAN QR CODE:

```
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-v2-125rwcp4ifi6zz2ly1cq0kakyjn98du2ysgc72h53lzi',
'af693938842290ec2c254461754447b5') service =
CloudantV1(authenticator=authenticator)

service.set_service_url('https://apikey-v2-
125rwcp4ifi6zz2ly1cq0kakyjn98du2ysgc72h53lzi:af693938842290ec2c254461754447b5@82d874994395-
4f46-a190-6a186bee5051-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 TICKER")

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 3.9.6*
File Edit Shell Debug Options Window Help
Python 3.9.6 (tags/v3.9.6:db3ff76, Jun 28 2021, 15:26:21) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:\Users\Nishanth G\AppData\Local\Programs\Python\Python39\pythoncam.py
{'_id': '2022-11-15,11:34:34', '_rev': '1-dc28604ce92b95da395e5e9a40018fef', 'Name': 'SUDHA', 'Age': 20, 'Mobile': 8976543212, 'boarding': 'Coimbatore', 'destination': 'Chennai', 'Seat': '2', 'Train selection': 'Blue mountain'}
```

DATA STORED IN CLOUDANT:

The screenshot shows the Cloudant web interface for a document titled "booking > 2022-11-15,11:34:34". The document is displayed in a JSON format. The interface includes a sidebar with navigation icons, a top bar with document details, and a main area for the document content. The document content is a JSON object with the following fields:

```
{
  "_id": "2022-11-15,11:34:34",
  "_rev": "1-dc28604ce92b95da395e5e9a40018fef",
  "Name": "SUDHA",
  "Age": 20,
  "Mobile": 8976543212,
  "boarding": "Coimbatore",
  "destination": "Chennai",
  "Seat": "2",
  "Train selection": "Blue mountain"
}
```