

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-v2-125rwcp4ifi6zz2ly1cq0kakyjn98du2yং
c72h53lzi: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.destroyAllWindows()

client.disconnect()
```

PYTHON CODE OUTPUT:

The screenshot shows a Python application window with two panes. The left pane displays a QR code on a blue background with text buttons for 'SUBMIT' and 'CANCELL'. The right pane shows a video feed from a camera. Below the application is a terminal window with the following text:

```
1, 15:26:21) [MSC v.1929 64 bit (AM
se()" for more information.

Programs/Python/Python39/pythoncam.

a94beaa173d7b9e0d00b09523cf24', 'Na
9, 'boarding': 'Chennai', 'destinat
a94beaa173d7b9e0d00b09523cf24', 'Na
9, 'boarding': 'Chennai', 'destinat
af693938842290ec2
38842290ec2c25446
```

The terminal also contains some Python code at the bottom:

```
tim
except
pri
tim

cv2.imshow
if cv2.wa
break

cap.release
cv2.destroyAllWindows()
```

The screenshot shows an IDLE Shell window with the following text:

```
*IDLE Shell 3.9.6*
File Edit Format Run 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 (AM
D64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
>= RESTART: C:/Users/Nishanth G/AppData/Local/Programs/Python/Python39/pythoncam.
py
service.set({'_id': '2022-11-12,09:22:22', '_rev': '1-7e6a94beaa173d7b9e0d00b09523cf24', 'Na
me': 'Ashwin', 'Age': 28, 'Mobile': 9786543219, 'boarding': 'Chennai', 'destinat
ion': 'Coimbatore', 'Seat': 2}
{'_id': '2022-11-12,09:22:22', '_rev': '1-7e6a94beaa173d7b9e0d00b09523cf24', 'Na
me': 'Ashwin', 'Age': 28, 'Mobile': 9786543219, 'boarding': 'Chennai', 'destinat
ion': 'Coimbatore', 'Seat': 2}

while True:
    _, frame
    decodedObj
    for obj
        #print
        a=obj
        cv2.putText
        #print
        try:
            res
            pr
            tim
        except:
            pri
            tim

    cv2.imshow
    if cv2.wa
        break

cap.release
cv2.destroyAllWindows()
```

Topic:
Smart Solution for Railways

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