FINAL CODE

CODE FOR QR SCANNER:

```python
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-
l2fbdnxi81dzhqd35dh2stpxiddi2a7r9xzn7o4yslc','bd447d6dce6b242650b50a0598fb7bec')

service=CloudantV1(authenticator=authenticator)

service.set_service_url('https://apikey-v2-
l2fbdnxi81dzhqd35dh2stpxiddi2a7r9xzn7o4yslc:bd447d6dce6b242650b50a0598fb7bec@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)
```

```python
        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()
```

CODE FOR LOCATION TRACKING:

```python
import wiotp.sdk.device
import time
import random
myConfig = {
    "identity": {
        "orgId":"12S377,
        "typeId":
        "Raspberry ",
        "deviceId":"123"
    },
    "auth": {
        "token": "12345678"
    }
}
def myCommandCallback(cmd):
    print("Message received from IBM IoT Platform: %s" % cmd.data['command'])
    m=cmd.data['command']
client=wiotp.sdk.device.DeviceClient(config=myConfig,logHandlers=None)
client.connect()

def pub(data):
    client.publishEvent(eventId="status",msgFormat="json",data=myData,qos=0,onPublish=None)
    print("Published data Successfully: %s",myData)
```

```python
while True:
    myData={'name':'Train 1','lat':17.6387448,'lon':78.4754336}
    pub(myData)
    time.sleep(3)
    myData={'name':'Train2','lat':17.6387448,'lon':78.4754336}
    pub(myData)
    time.sleep(3)
    myData={'name':'Train 1','lat':17.6341908,'lon':78.4744722}
    pub(myData)
    time.sleep(3)
    myData={'name':'Train 1','lat':17.6340889,'lon':78.4745052}
    pub(myData)
    time.sleep(3)
    myData={'name':'Train 1','lat':17.6348626,'lon':78.4720259}
    pub(myData)
    time.sleep(3)
    myData={'name':'Train 1','lat':17.6188577,'lon':78.4698726}
    pub(myData)
    time.sleep(3)
    myData={'name':'Train 1','lat':17.6132382,'lon':78.4707318}
    pub(myData)
    time.sleep(3)
    client.commandCallback=myCommandCallback
client.disconnect()
```

SOURCE CODE FOR GPS MODULE

```python
def myCommandCallback(cmd import wiotp.sdk.device
import time
import random
myConfig = {
    "identity": {
```

```python
      "orgId": "12S377",

      "typeId": "

      Raspberry ",

      "deviceId":"123"
  },
    "auth": {

       "token": "12345678"

  }
  }
  ):
    print("Message received from IBM IoT Platform: %s" % cmd.data['command'])

    m=cmd.data['command']
client=wiotp.sdk.device.DeviceClient(config=myConfig,logHandlers=None)
 client.connect()


def pub(data):
client.publishEvent(eventId="status",msgFormat="json",data=myData,qos=0,onPublish=None)

print("Published data Successfully: %s",myData) 30

while True:

    myData={'name':'Train 1','lat':17.6387448,'lon':78.4754336}

    pub(myData)

    time.sleep(3)

    myData={'name':'Train2','lat':17.6387448,'lon':78.4754336}

    pub(myData)

    time.sleep(3) myData={'name':'Train 1','lat':17.6341908,'lon':78.4744722}

    pub(myData)

    time.sleep(3)

    myData={'name':'Train 1','lat':17.6340889,'lon':78.4745052}

    pub(myData)

    time.sleep(3)

    myData={'name':'Train 1','lat':17.6348626,'lon':78.4720259}

     pub(myData)
```

```python
        time.sleep(3)

        myData={'name':'Train 1','lat':17.6188577,'lon':78.4698726}

        pub(myData)

        time.sleep(3)

        myData={'name':'Train 1','lat':17.6132382,'lon':78.4707318}

        pub(myData)

        time.sleep(3)

        client.commandCallback=myCommandCallback
client.disconnect()
```

DATA BASE VALUE:

```javascript
 var d=new Date();

 var utc=d.getTime()+(d.getTimezoneOffset()*60000);

var offset=5.5;

 newDate=new Date(utc+(3600000*offset));

var n=newDate.toISOString()

var date=n.slice(0,10)

var time=n.slice(11,19)

var d1=date+','+time

msg.payload={

"_id":d1,

 "Name":m.name,

 "Age":m.age,

"Mobile":m.num,

 "boarding":global.get('b'),

 "destination":global.get('d'),

 "Seat":global.get('s'),

 "Train selection":global.get('t')

 }

 return msg;
```