

## PROJECT DEVELOPMENT PHASE - SPRINT 2

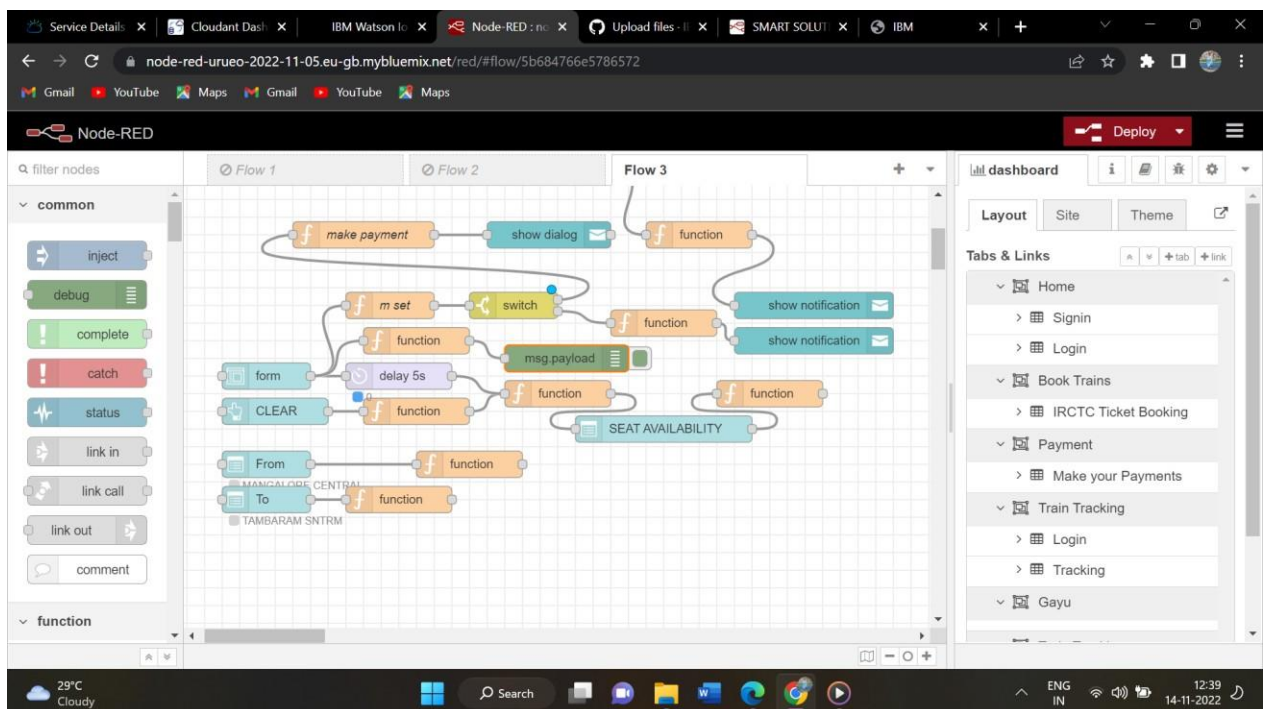
Date	5 NOVEMBER 2022
Team ID	PNT2022TMID08702
Project Name	Smart Solutions for railways

### SPRINT 2 – Train Booking and Payments

After logging into the website, the user should enter the Travelling details (Boarding and destination status). The user must also enter their personal details. After providing the required details, they are directed to the payment tab.

In the payment section, the user should enter their card details such as NAME, CARD NUMBER and CVV. Once they complete the payment, the ticket will be generated. The user will receive an unique identification (QR code) which will be used for ticket verification.

### NODE-RED FLOW FOR TICKET BOOKING



## USER INTERFACE FOR TICKET BOOKING

The screenshot shows a web browser window with the URL `node-red-urueo-2022-11-05.eu-gb.mybluemix.net/ui/#/1?socketid=yRqDh0RkFaAeNGi-AAAE`. The page has a teal header with a hamburger menu icon and the text "Book Trains". The main content area is dark grey and contains a white "IRCTC Ticket Booking" form. The form has the following fields: "From" (CHENNAI CENTRAL- MAS), "To" (COIMBATORE JN- CBE), "NAME" (Calin), "AGE" (21), "MOBILE NUMBER" (2453545546), "EMAIL ID" (calincalin@gmail.cc), "SEAT" (2), and a "SUBMIT" button. There are also "CANCEL" and "CLEAR" buttons. At the bottom right of the form area, there is a notification: "No new notifications (Focus assist on)". The Windows taskbar at the bottom shows the date as 14-11-2022 and the time as 18:34.

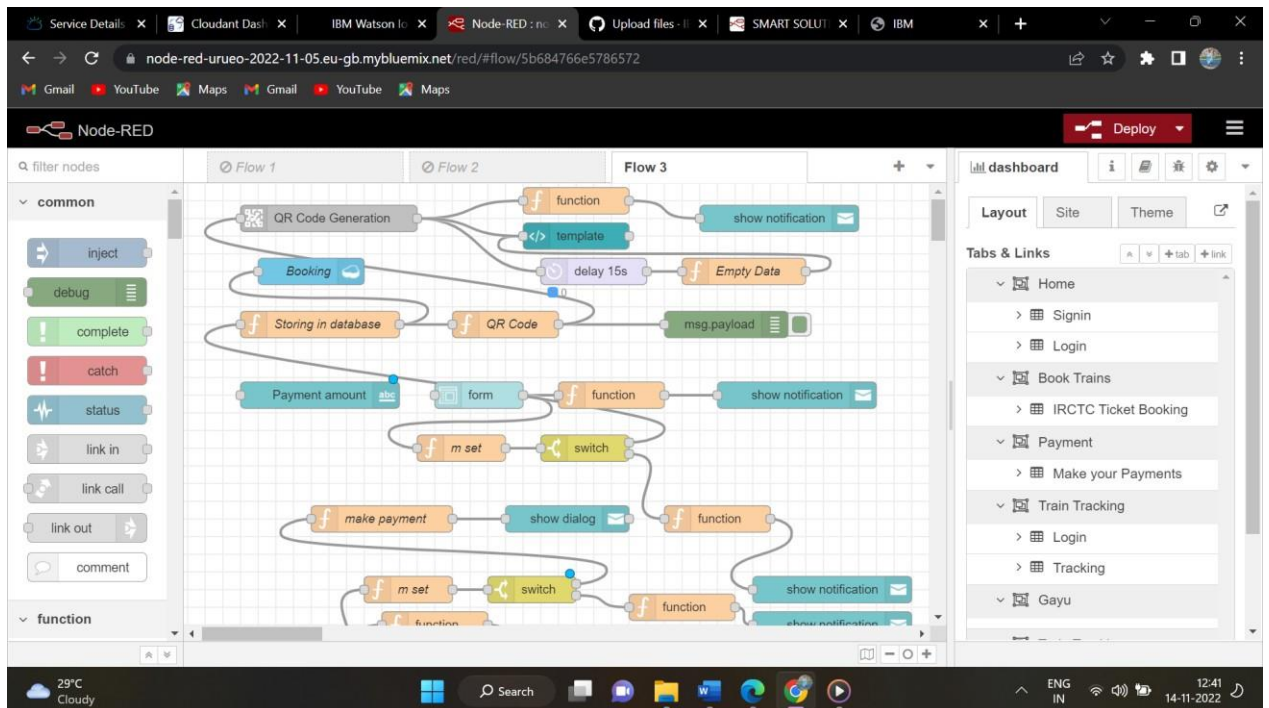
## NODE-RED FLOW FOR TICKET BOOKING

The screenshot shows the Node-RED web interface in the "Edit function node" mode. The browser address bar shows the URL `node-red-urueo-2022-11-05.eu-gb.mybluemix.net/red/#flow/5b684766e5786572`. The left sidebar shows a palette of nodes under "common" and "function". The central workspace shows a flow with a "form" node connected to a "CLEAR" node, and a "From" node connected to a "To" node. The "Edit function node" panel is open, showing the "On Message" tab. The code in the editor is as follows:

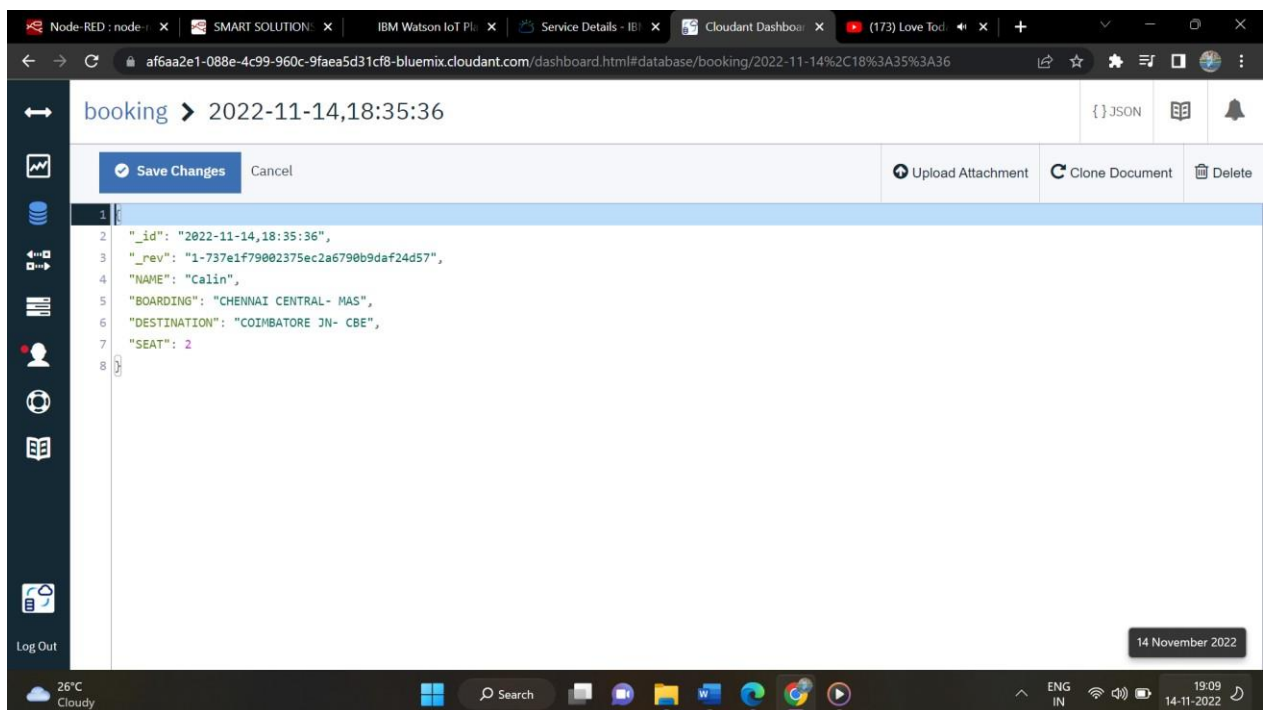
```
1 var a = global.get('a')
2 var s = []
3 for (let i=0; i<a.length; i++){
4   s.push(a[i])
5 }
6 if(s.length==0){
7   msg.options=[{"NO SEATS AVAILABLE":0}]
8 }
9 else{
10   msg.option=s
11 }
12 msg.payload = s
13 return msg;
```

The right sidebar shows a "dashboard" panel with a "Layout" tab selected. It lists "Tabs & Links" including Home, Signin, Login, Book Trains, IRCTC Ticket Booking, Payment, Make your Payments, Train Tracking, Gayu, and Tracking. The Windows taskbar at the bottom shows the date as 14-11-2022 and the time as 12:40.

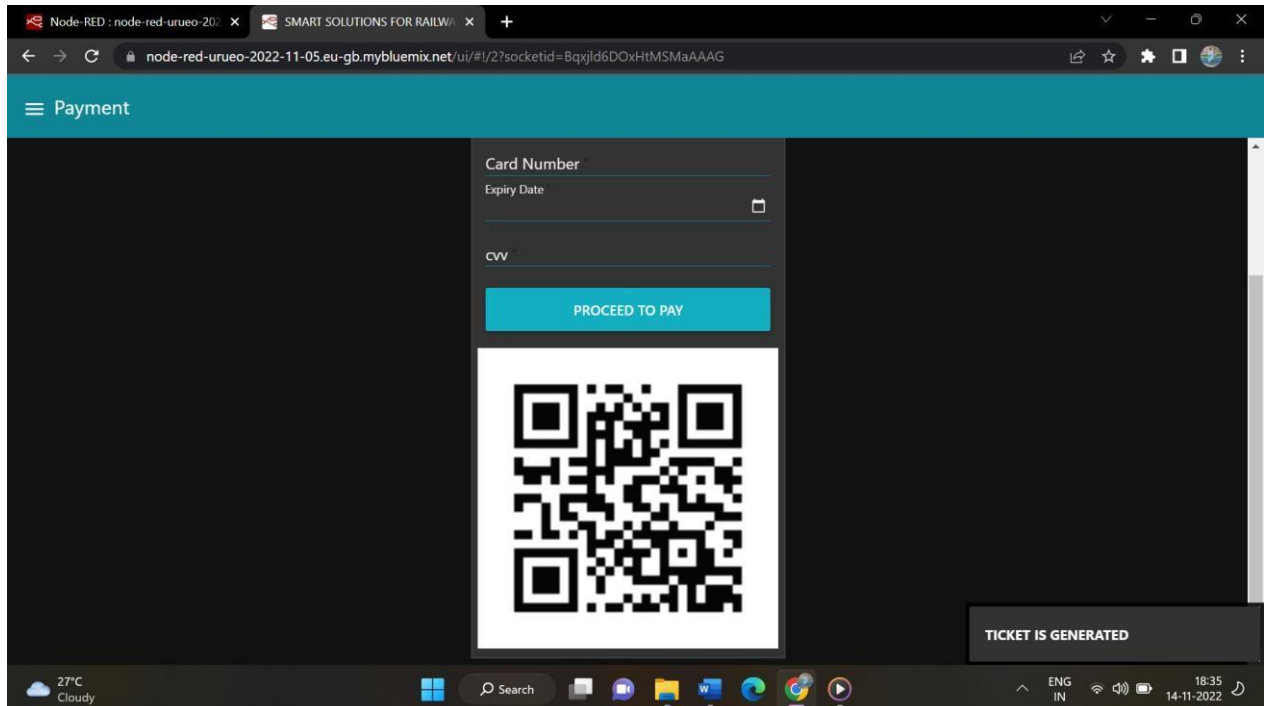
## NODE-RED FLOW FOR PAYMENT



## IBM CLOUDANT SIGNIN DATABASE



## PYTHON CODE FOR GPS:



```
import
wiotp.sdk.device
import time
import
random
myConfi
g = {
    "identity": {
        "orgId": " s91n0t",
        "typeId": "
        MyDeviceType",
        "deviceId": " 12345"
    },
    "auth": {
        "token": " @)fRE3fdITS!MaT3F_"
    }
}

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)
```

```
while True:
```

```
    myData={'name': 'Train1', 'lat':13.08363 ,
'lon': 80.27080}pub (myData)
    time.sleep (2)
    myData={'name': 'Train2', 'lat': 12.40797,
'lon': 79.81410}pub (myData)
    time.sleep (2)
```

```
    myData={'name': 'Train1', 'lat': 11.83331,
'lon': 79.37465}pub(myData)
    time.sleep(6)
```

```
    myData={'name': 'Train1', 'lat': 11.59664,
'lon': 78.69899}pub (myData)
    time.sleep (6)
```

```
    myData={'name': 'Train1', 'lat': 11.63431,
'lon': 78.11122}pub (myData)
    time.sleep (6)
```

```
    myData={'name': 'Train1', 'lat': 11.32207,
'lon': 77.61684}pub (myData)
    time.sleep (6)
```

```
    myData={'name': 'Train1', 'lat': 11.03107,
'lon': 76.96864}pub (myData)
    time.sleep (6)
```

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