

POST-LOCKDOWN TRANSPORTATION MANAGEMENT

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IBM HACK CHALLENGE 2020

PROJECT -ID : SPS_PRO_223



ABSTRACT

The **coronavirus pandemic** has spread rapidly across the globe, causing a complete halt in daily routines, ripping through our global resources, and in some extreme cases, taking lives. The whole world is in crisis mode, but for what may be the first time in history, we're fighting a common enemy. In this critical period, the main problem is travelling which has been stopped in order to control the spread of the virus which has ultimately putted an end to the public transportations. Public transport is the backbone of cities, providing an essential service to keep cities moving, particularly in times of pandemics. In this situation, travelling has been cut-off for more than 2 months which had a huge negative impact on the people and the fields which are related to transportation. The key objective for public transport operators therefore has to be maintaining a minimum service. **“SOCIAL DISTANCING”** and **“CONTACTLESS PAYMENT”** are the major factor to be considered during travelling and the following solution greatly improves these two factors. By utilizing the digital pass given to each passengers in order to avoid the social contact with the other person. Also by using the app, passengers gets to know the count of the people existing in the bus in advance.

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INTRODUCTION

With transmission rates higher in crowded spaces, a busy bus or cramped subway carriage seems a likely breeding ground for the virus to spread. It's therefore unsurprising that worldwide public transport use has rapidly declined. Some European countries have advised residents against taking public transport unless it's absolutely necessary. Since people has started to get back to their work life, there will be fraction of people who would work from home, a few others would have the option to shift to their own private vehicles but majority of people will still depend upon public transportation for their daily commute. Since this crisis is novel we come up with this solution, in which people can use public transportation without any fear of outspread of the disease by utilizing the digital pass to avoid the social contact other person. The boarding passes which people use regularly are redesigned in the form of digital passes so the social distancing is maintained inside the bus.

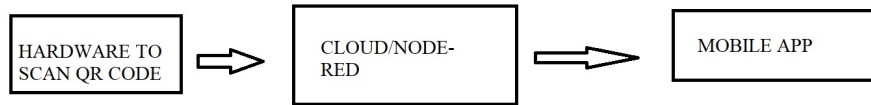
Competence and Mechanisms

1. Python
2. IBM Cloud Platform
3. App Development Framework (MIT App Inventor 2)
4. Blue Prism (Robotics Process Automation)
5. Excel

Quick Fix to the Problem

Generally, the bus conductor used to provide the bus tickets to the passengers manually. This process is modified into digital pass which avoids the social distance in the middle of two persons. When a passenger boards the bus they has to scan the QR code which is the Digital pass, once the verification is processed the count is set on and then this count will be subtracted with people who gets down from the bus. By the power of IOT the data is transmitted to the cloud after manipulation. The data is available in json format which is fetched and displayed in the android app. The app also displays the current location of the bus and updates the occupancy rate of the bus. In order to inform the user about the validity of the digital pass, the username and user mail id is stored in the excel sheet. By using RPA, a software bot is designed which will validate the date of purchase to the present date and the validation of the pass. If the validity of the pass is about to expire, it will send a short message to the user informing them about validity of the digital pass by utilizing the username and user mail id extracted from the excel sheet.

Work-flow :



Source code:

1. Node-red:

```
[
  {
    "id": "7c26dead.65492",
    "type": "tab",
    "label": "Flow 1",
    "disabled": false,
    "info": ""
  },
  {
    "id": "517c32a0.405ffc",
    "type": "ibmiot in",
    "z": "7c26dead.65492",
    "authentication": "apiKey",
```

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"apiKey": "79f61d3d.c2e1f4",
"inputType": "evt",
"logicalInterface": "",
"ruleId": "",
"deviceId": "0029",
"applicationId": "",
"deviceType": "bus29c",
"eventType": "+",
"commandType": "",
"format": "json",
"name": "29C",
"service": "registered",
"allDevices": "",
"allApplications": "",
"allDeviceTypes": "",
"allLogicalInterfaces": "",
"allEvents": true,
"allCommands": "",
"allFormats": "",
"qos": 0,
"x": 180,
"y": 120,
"wires": [
  [
    "5e64a026.9bc09",
    "1dae3eda.8562e1",
    "d44fb1a1.7ff1d",
    "647d6a66.30f094"
  ]
]
},
{
  "id": "22feeab1.ec4026",
  "type": "ibmiot in",
  "z": "7c26dead.65492",
  "authentication": "apiKey",
  "apiKey": "79f61d3d.c2e1f4",
```

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"ruleId": "",
"deviceId": "0028",
"applicationId": "",
"deviceType": "bus28f",
"eventType": "+",
"commandType": "",
"format": "json",
"name": "28f",
"service": "registered",
"allDevices": "",
"allApplications": "",
"allDeviceTypes": "",
"allLogicalInterfaces": "",
"allEvents": true,
"allCommands": "",
"allFormats": "",
"qos": 0,
"x": 170,
"y": 480,
"wires": [
  [
    "bcf1a33b.39f76",
    "9caf6ffa.3af34",
    "3ae091.ac7b9f7",
    "32d49785.e00388"
  ]
]
},
{
  "id": "32d49785.e00388",
  "type": "debug",
  "z": "7c26dead.65492",
  "name": "",
  "active": false,
  "tosidebar": true,
```



```
"console": false,
"toaststatus": false,
"complete": "false",
"x": 690,
"y": 500,
"wires": []
},
{
  "id": "b17f97e5.a86618",
  "type": "http in",
  "z": "7c26dead.65492",
  "name": "",
  "url": "/28f",
  "method": "get",
  "upload": false,
  "swaggerDoc": "",
  "x": 240,
  "y": 620,
  "wires": [
    [
      "39eaa634.2f0b4a"
    ]
  ]
},
{
  "id": "7f167dd.71aa384",
  "type": "http response",
  "z": "7c26dead.65492",
  "name": "",
  "statusCode": "",
  "headers": {},
  "x": 590,
  "y": 620,
  "wires": []
},
{
  "id": "bcf1a33b.39f76",
```

```
    "type": "function",
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    "name": "location_28f",
    "func": "global.set('location28f',msg.payload.d.Location)\nreturn
{payload:msg.payload.d.Location}",
    "outputs": 1,
    "noerr": 0,
    "x": 430,
    "y": 520,
    "wires": [
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      ]
    ]
  },
  {
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    "type": "function",
    "z": "7c26dead.65492",
    "name": "count_28f",
    "func": "global.set('count28f',msg.payload.d.Count)\nreturn
{payload:msg.payload.d.Count}",
    "outputs": 1,
    "noerr": 0,
    "x": 420,
    "y": 580,
    "wires": [
      [
        "32d49785.e00388",
        "b39456fc.a40c88"
      ]
    ]
  },
  {
    "id": "39eaa634.2f0b4a",
    "type": "function",
    "z": "7c26dead.65492",
```

```

    "name": "28f",
    "func":
"msg.payload={\"location28f\":global.get('location28f'),\"count28f\":global.get('count28f
'),\"live28f\":global.get('live28f')}\nreturn msg;",
    "outputs": 1,
    "noerr": 0,
    "x": 410,
    "y": 640,
    "wires": [
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    ]
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    "type": "function",
    "z": "7c26dead.65492",
    "name": "location_29c",
    "func": "global.set('location29c',msg.payload.d.Location)\nreturn
{payload:msg.payload.d.Location}",
    "outputs": 1,
    "noerr": 0,
    "x": 460,
    "y": 180,
    "wires": [
        [
            "647d6a66.30f094"
        ]
    ]
},
{
    "id": "1dae3eda.8562e1",
    "type": "function",
    "z": "7c26dead.65492",
    "name": "count_29c",

```

```

    "func": "global.set('count29c',msg.payload.d.Count)\nreturn
{payload:msg.payload.d.Count}",
    "outputs": 1,
    "noerr": 0,
    "x": 460,
    "y": 260,
    "wires": [
        [
            "647d6a66.30f094",
            "94e648b1.89b508"
        ]
    ]
},
{
    "id": "649a3cac.f9d1a4",
    "type": "function",
    "z": "7c26dead.65492",
    "name": "29_c",
    "func":
"msg.payload={\"location28f\":global.get('location29c'),\"count29c\":global.get('count29
c'),\"live29c\":global.get('live29c')}\nreturn msg;",
    "outputs": 1,
    "noerr": 0,
    "x": 430,
    "y": 380,
    "wires": [
        [
            "a2ecc68a.05f188"
        ]
    ]
},
{
    "id": "4599c620.4bda38",
    "type": "http in",
    "z": "7c26dead.65492",
    "name": "",
    "url": "/29c",

```

```
"method": "get",
"upload": false,
"swaggerDoc": "",
"x": 200,
"y": 380,
"wires": [
  [
    "649a3cac.f9d1a4"
  ]
]
},
{
  "id": "a2ecc68a.05f188",
  "type": "http response",
  "z": "7c26dead.65492",
  "name": "",
  "statusCode": "",
  "headers": {},
  "x": 710,
  "y": 380,
  "wires": []
},
{
  "id": "be0b4707.40a618",
  "type": "ibmiot in",
  "z": "7c26dead.65492",
  "authentication": "apiKey",
  "apiKey": "79f61d3d.c2e1f4",
  "inputType": "evt",
  "logicalInterface": "",
  "ruleId": "",
  "deviceId": "0007",
  "applicationId": "",
  "deviceType": "bus7g",
  "eventType": "+",
  "commandType": "",
  "format": "json",
```

```
"name": "7g",
"service": "registered",
"allDevices": "",
"allApplications": "",
"allDeviceTypes": "",
"allLogicalInterfaces": "",
"allEvents": true,
"allCommands": "",
"allFormats": "",
"qos": 0,
"x": 200,
"y": 800,
"wires": [
  [
    "bf8112fb.18fb9",
    "816f9f54.26893",
    "b28596b3.5a0878",
    "e5935044.40535"
  ]
],
},
{
  "id": "e5935044.40535",
  "type": "debug",
  "z": "7c26dead.65492",
  "name": "",
  "active": false,
  "tosidebar": true,
  "console": false,
  "tostatus": false,
  "complete": "false",
  "x": 770,
  "y": 800,
  "wires": []
},
{
  "id": "bf8112fb.18fb9",
```

```
"type": "function",
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"name": "location_7g",
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{payload:msg.payload.d.Location}",
"outputs": 1,
"noerr": 0,
"x": 470,
"y": 840,
"wires": [
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  ]
],
},
{
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  "z": "7c26dead.65492",
  "name": "count7g",
  "func": "global.set('count7g',msg.payload.d.Count)\nreturn
{payload:msg.payload.d.Count}",
  "outputs": 1,
  "noerr": 0,
  "x": 463,
  "y": 905.4000244140625,
  "wires": [
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      "613d47f.bd69eb8"
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  ],
},
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  "type": "function",
  "z": "7c26dead.65492",
```

```
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"func":
"msg.payload={\"location7g\":global.get('location7g'),\"count7g\":global.get('count7g'),\"
live7g\":global.get('live7g')}\nreturn msg;\",
  "outputs": 1,
  "noerr": 0,
  "x": 450,
  "y": 960,
  "wires": [
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    ]
  ],
},
{
  "id": "c45b4229.3ed34",
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  "z": "7c26dead.65492",
  "name": "",
  "url": "/7g",
  "method": "get",
  "upload": false,
  "swaggerDoc": "",
  "x": 220,
  "y": 960,
  "wires": [
    [
      "d01b7e6c.5101a"
    ]
  ],
},
{
  "id": "865fa886.0437c8",
  "type": "http response",
  "z": "7c26dead.65492",
  "name": "",
  "statusCode": "",
```



```
"headers": {},
"x": 750,
"y": 960,
"wires": []
},
{
  "id": "cd7cdd56.6beda",
  "type": "ibmiot in",
  "z": "7c26dead.65492",
  "authentication": "apiKey",
  "apiKey": "79f61d3d.c2e1f4",
  "inputType": "evt",
  "logicalInterface": "",
  "ruleId": "",
  "deviceId": "0012",
  "applicationId": "",
  "deviceType": "bus12a",
  "eventType": "+",
  "commandType": "",
  "format": "json",
  "name": "12a",
  "service": "registered",
  "allDevices": "",
  "allApplications": "",
  "allDeviceTypes": "",
  "allLogicalInterfaces": "",
  "allEvents": "",
  "allCommands": "",
  "allFormats": "",
  "qos": 0,
  "x": 220,
  "y": 1100,
  "wires": [
    [
      "2bde7d60.314d12",
      "633a3ba5.b84384",
      "8fb98569.767588",
```

```

        "b64695fb.712488"
    ]
]
},
{
    "id": "2bde7d60.314d12",
    "type": "debug",
    "z": "7c26dead.65492",
    "name": "",
    "active": false,
    "tosidebar": true,
    "console": false,
    "tostatus": false,
    "complete": "false",
    "x": 690,
    "y": 1100,
    "wires": []
},
{
    "id": "8fb98569.767588",
    "type": "function",
    "z": "7c26dead.65492",
    "name": "count_12a",
    "func": "global.set('count12a',msg.payload.d.Count)\nreturn
{payload:msg.payload.d.Count}",
    "outputs": 1,
    "noerr": 0,
    "x": 450,
    "y": 1200,
    "wires": [
        [
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            "cd91bc9c.d258d"
        ]
    ]
}
],
{

```

```

    "id": "633a3ba5.b84384",
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    "z": "7c26dead.65492",
    "name": "location_12a",
    "func": "global.set('location12a',msg.payload.d.Location)\nreturn
{payload:msg.payload.d.Location}",
    "outputs": 1,
    "noerr": 0,
    "x": 430,
    "y": 1140,
    "wires": [
        [
            "2bde7d60.314d12"
        ]
    ]
},
{
    "id": "e35c3c6.5de0dc",
    "type": "function",
    "z": "7c26dead.65492",
    "name": "12_a",
    "func":
"msg.payload={\"location12a\":global.get('location12a'),\"count12a\":global.get('count1
2a'),\"live12a\":global.get('live12a')}\nreturn msg;",
    "outputs": 1,
    "noerr": 0,
    "x": 420,
    "y": 1280,
    "wires": [
        [
            "df98f432.866c38"
        ]
    ]
},
{
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    "type": "http in",

```

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"z": "7c26dead.65492",
"name": "",
"url": "/12a",
"method": "get",
"upload": false,
"swaggerDoc": "",
"x": 230,
"y": 1280,
"wires": [
  [
    "e35c3c6.5de0dc"
  ]
],
},
{
  "id": "df98f432.866c38",
  "type": "http response",
  "z": "7c26dead.65492",
  "name": "",
  "statusCode": "",
  "headers": {},
  "x": 700,
  "y": 1260,
  "wires": []
},
{
  "id": "f98cd9f5.96f138",
  "type": "ibmiot in",
  "z": "7c26dead.65492",
  "authentication": "apiKey",
  "apiKey": "79f61d3d.c2e1f4",
  "inputType": "evt",
  "logicalInterface": "",
  "ruleId": "",
  "deviceId": "0046",
  "applicationId": "",
  "deviceType": "bus46g",
```

```
"eventType": "+",
"commandType": "",
"format": "json",
"name": "46g",
"service": "registered",
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"allApplications": "",
"allDeviceTypes": "",
"allLogicalInterfaces": "",
"allEvents": "",
"allCommands": "",
"allFormats": "",
"qos": 0,
"x": 196,
"y": 1412,
"wires": [
  [
    "b4c03ba3.ee1c08",
    "b7c94139.838d5",
    "e44562d4.d3db3",
    "d2d8261e.264228"
  ]
]
},
{
  "id": "d2d8261e.264228",
  "type": "debug",
  "z": "7c26dead.65492",
  "name": "",
  "active": false,
  "tosidebar": true,
  "console": false,
  "tostatus": false,
  "complete": "payload",
  "targetType": "msg",
  "x": 770,
  "y": 1420,
```

```

    "wires": []
  },
  {
    "id": "b7c94139.838d5",
    "type": "function",
    "z": "7c26dead.65492",
    "name": "count_46g",
    "func": "global.set('count46g',msg.payload.d.Count)\nreturn
{payload:msg.payload.d.Count}",
    "outputs": 1,
    "noerr": 0,
    "x": 426,
    "y": 1512,
    "wires": [
      [
        "d2d8261e.264228"
      ]
    ]
  },
  {
    "id": "b4c03ba3.ee1c08",
    "type": "function",
    "z": "7c26dead.65492",
    "name": "location_46g",
    "func": "global.set('location46g',msg.payload.d.Location)\nreturn
{payload:msg.payload.d.Location}",
    "outputs": 1,
    "noerr": 0,
    "x": 406,
    "y": 1452,
    "wires": [
      [
        "d2d8261e.264228"
      ]
    ]
  },
  {

```

```

    "id": "f4ee75ef.d92f38",
    "type": "function",
    "z": "7c26dead.65492",
    "name": "46g",
    "func":
"msg.payload={\"location46g\":global.get('location46g'),\"count46g\":global.get('count4
6g'),\"live46g\":global.get('live46g')}\nreturn msg;",
    "outputs": 1,
    "noerr": 0,
    "x": 396,
    "y": 1592,
    "wires": [
      [
        "7461f83c.af60e8"
      ]
    ]
  },
  {
    "id": "9e9e59bd.c1d158",
    "type": "http in",
    "z": "7c26dead.65492",
    "name": "",
    "url": "/46g",
    "method": "get",
    "upload": false,
    "swaggerDoc": "",
    "x": 206,
    "y": 1592,
    "wires": [
      [
        "f4ee75ef.d92f38"
      ]
    ]
  },
  {
    "id": "7461f83c.af60e8",
    "type": "http response",

```

```

    "z": "7c26dead.65492",
    "name": "",
    "statusCode": "",
    "headers": {},
    "x": 676,
    "y": 1572,
    "wires": []
  },
  {
    "id": "2db5c2b1.05468e",
    "type": "ibmiot in",
    "z": "7c26dead.65492",
    "authentication": "apiKey",
    "apiKey": "79f61d3d.c2e1f4",
    "inputType": "evt",
    "logicalInterface": "",
    "ruleId": "",
    "deviceId": "0006",
    "applicationId": "",
    "deviceType": "bus6a",
    "eventType": "+",
    "commandType": "",
    "format": "json",
    "name": "6a",
    "service": "registered",
    "allDevices": "",
    "allApplications": "",
    "allDeviceTypes": "",
    "allLogicalInterfaces": "",
    "allEvents": "",
    "allCommands": "",
    "allFormats": "",
    "qos": 0,
    "x": 190,
    "y": 1700,
    "wires": [
      [

```



```

        "f88d3a7f.b66e28",
        "b2527d6.d406d8",
        "3aff7f9b.acd2e",
        "cc7f03b5.12fae"
    ]
}
{
    "id": "cc7f03b5.12fae",
    "type": "debug",
    "z": "7c26dead.65492",
    "name": "",
    "active": false,
    "tosidebar": true,
    "console": false,
    "tostatus": false,
    "complete": "false",
    "x": 670,
    "y": 1740,
    "wires": []
},
{
    "id": "b2527d6.d406d8",
    "type": "function",
    "z": "7c26dead.65492",
    "name": "count_6a",
    "func": "global.set('count6a',msg.payload.d.Count)\nreturn
{payload:msg.payload.d.Count}",
    "outputs": 1,
    "noerr": 0,
    "x": 410,
    "y": 1800,
    "wires": [
        [
            "cc7f03b5.12fae"
        ]
    ]
}

```

```

},
{
  "id": "f88d3a7f.b66e28",
  "type": "function",
  "z": "7c26dead.65492",
  "name": "location_6a",
  "func": "global.set('location6a',msg.payload.d.Location)\nreturn
{payload:msg.payload.d.Location}",
  "outputs": 1,
  "noerr": 0,
  "x": 400,
  "y": 1740,
  "wires": [
    [
      "cc7f03b5.12fae"
    ]
  ]
},
{
  "id": "a36d38a1.e74c88",
  "type": "function",
  "z": "7c26dead.65492",
  "name": "6a",
  "func":
"msg.payload={\"location6a\":global.get('location6a'),\"count6a\":global.get('count6a'),\"
live6a\":global.get('live6a')}}\nreturn msg;",
  "outputs": 1,
  "noerr": 0,
  "x": 390,
  "y": 1880,
  "wires": [
    [
      "f5ec4ce2.a0517"
    ]
  ]
},
{

```

```
"id": "27ca28f9.2c45c8",
"type": "http in",
"z": "7c26dead.65492",
"name": "",
"url": "/6a",
"method": "get",
"upload": false,
"swaggerDoc": "",
"x": 190,
"y": 1880,
"wires": [
  [
    "a36d38a1.e74c88"
  ]
]
},
{
  "id": "f5ec4ce2.a0517",
  "type": "http response",
  "z": "7c26dead.65492",
  "name": "",
  "statusCode": "",
  "headers": {},
  "x": 670,
  "y": 1860,
  "wires": []
},
{
  "id": "12cefa66.d07496",
  "type": "ibmiot in",
  "z": "7c26dead.65492",
  "authentication": "apiKey",
  "apiKey": "79f61d3d.c2e1f4",
  "inputType": "evt",
  "logicalInterface": "",
  "ruleId": "",
  "deviceId": "0023",
```

```
"applicationId": "",
"deviceType": "bus23e",
"eventType": "+",
"commandType": "",
"format": "json",
"name": "23e",
"service": "registered",
"allDevices": "",
"allApplications": "",
"allDeviceTypes": "",
"allLogicalInterfaces": "",
"allEvents": "",
"allCommands": "",
"allFormats": "",
"qos": 0,
"x": 150,
"y": 2040,
"wires": [
  [
    "266dacb9.920464",
    "d4f518d2.292488",
    "583a480d.d8c378",
    "aec4b04f.eeaf9"
  ]
]
},
{
  "id": "aec4b04f.eeaf9",
  "type": "debug",
  "z": "7c26dead.65492",
  "name": "",
  "active": false,
  "tosidebar": true,
  "console": false,
  "tostatus": false,
  "complete": "false",
  "x": 620,
```

```
"y": 2040,
"wires": []
},
{
  "id": "d4f518d2.292488",
  "type": "function",
  "z": "7c26dead.65492",
  "name": "count_23e",
  "func": "global.set('count23e',msg.payload.d.Count)\nreturn
{payload:msg.payload.d.Count}",
  "outputs": 1,
  "noerr": 0,
  "x": 380,
  "y": 2140,
  "wires": [
    [
      "aec4b04f.eeaf9"
    ]
  ]
},
{
  "id": "266dacb9.920464",
  "type": "function",
  "z": "7c26dead.65492",
  "name": "location_23e",
  "func": "global.set('location23e',msg.payload.d.Location)\nreturn
{payload:msg.payload.d.Location}",
  "outputs": 1,
  "noerr": 0,
  "x": 360,
  "y": 2080,
  "wires": [
    [
      "aec4b04f.eeaf9"
    ]
  ]
},
```

```
{
  "id": "d737864b.875f38",
  "type": "function",
  "z": "7c26dead.65492",
  "name": "23e",
  "func":
"msg.payload={\"location23e\":global.get('location23e'),\"count23e\":global.get('count2
3e'),\"live23e\":global.get('live23e'))}\\nreturn msg;";
  "outputs": 1,
  "noerr": 0,
  "x": 350,
  "y": 2220,
  "wires": [
    [
      "c381b7c6.315448"
    ]
  ]
},
{
  "id": "f64c4a0e.35e478",
  "type": "http in",
  "z": "7c26dead.65492",
  "name": "",
  "url": "/23e",
  "method": "get",
  "upload": false,
  "swaggerDoc": "",
  "x": 160,
  "y": 2220,
  "wires": [
    [
      "d737864b.875f38"
    ]
  ]
},
{
  "id": "c381b7c6.315448",
```

```
"type": "http response",
"z": "7c26dead.65492",
"name": "",
"statusCode": "",
"headers": {},
"x": 630,
"y": 2200,
"wires": []
},
{
  "id": "3ae091.ac7b9f7",
  "type": "function",
  "z": "7c26dead.65492",
  "name": "live28f",
  "func": "global.set('live28f',msg.payload.d.Live)\nreturn
{payload:msg.payload.d.Live}",
  "outputs": 1,
  "noerr": 0,
  "x": 440,
  "y": 460,
  "wires": [
    [
      "32d49785.e00388"
    ]
  ]
},
{
  "id": "d44fb1a1.7ff1d",
  "type": "function",
  "z": "7c26dead.65492",
  "name": "live29c",
  "func": "global.set('live29c',msg.payload.d.Live)\nreturn
{payload:msg.payload.d.Live}",
  "outputs": 1,
  "noerr": 0,
  "x": 430,
  "y": 140,
```

```
"wires": [
  [
    "647d6a66.30f094"
  ]
],
{
  "id": "647d6a66.30f094",
  "type": "debug",
  "z": "7c26dead.65492",
  "name": "",
  "active": false,
  "tosidebar": true,
  "console": false,
  "tostatus": false,
  "complete": "false",
  "x": 680,
  "y": 140,
  "wires": []
},
{
  "id": "b28596b3.5a0878",
  "type": "function",
  "z": "7c26dead.65492",
  "name": "live_7g",
  "func": "global.set('live7g',msg.payload.d.Live)\nreturn\n{payload:msg.payload.d.Live}",
  "outputs": 1,
  "noerr": 0,
  "x": 490,
  "y": 780,
  "wires": [
    [
      "e5935044.40535"
    ]
  ]
},
```



```
{
  "id": "94e648b1.89b508",
  "type": "ui_gauge",
  "z": "7c26dead.65492",
  "name": "bus_29c",
  "group": "680cec11.38e8c4",
  "order": 0,
  "width": 0,
  "height": 0,
  "gtype": "gage",
  "title": "Bus_29c",
  "label": "C",
  "format": "{{value}}",
  "min": 0,
  "max": "100",
  "colors": [
    "#00b500",
    "#e66f00",
    "#ca3838"
  ],
  "seg1": "30",
  "seg2": "40",
  "x": 800,
  "y": 240,
  "wires": []
},
{
  "id": "b39456fc.a40c88",
  "type": "ui_gauge",
  "z": "7c26dead.65492",
  "name": "bus_28f",
  "group": "680cec11.38e8c4",
  "order": 0,
  "width": 0,
  "height": 0,
  "gtype": "gage",
  "title": "Bus_28f",
```

```
"label": "C",
"format": "{{value}}",
"min": 0,
"max": "100",
"colors": [
    "#00b500",
    "#e66f00",
    "#ca3838"
],
"seg1": "30",
"seg2": "40",
"x": 680,
"y": 560,
"wires": []
},
{
    "id": "613d47f.bd69eb8",
    "type": "ui_gauge",
    "z": "7c26dead.65492",
    "name": "bus_7g",
    "group": "680cec11.38e8c4",
    "order": 0,
    "width": 0,
    "height": 0,
    "gtype": "gage",
    "title": "Bus_7g",
    "label": "C",
    "format": "{{value}}",
    "min": 0,
    "max": "100",
    "colors": [
        "#00b500",
        "#e66f00",
        "#ca3838"
    ],
    "seg1": "30",
    "seg2": "40",
```

```
"x": 720,
"y": 880,
"wires": []
},
{
  "id": "cd91bc9c.d258d",
  "type": "ui_gauge",
  "z": "7c26dead.65492",
  "name": "bus_12a",
  "group": "7e93cf49.13b68",
  "order": 0,
  "width": 0,
  "height": 0,
  "gtype": "gage",
  "title": "Bus_12a",
  "label": "C",
  "format": "{{value}}",
  "min": 0,
  "max": "100",
  "colors": [
    "#00b500",
    "#e66f00",
    "#ca3838"
  ],
  "seg1": "30",
  "seg2": "40",
  "x": 700,
  "y": 1180,
  "wires": []
},
{
  "id": "1d7b65ec.b21e7a",
  "type": "debug",
  "z": "7c26dead.65492",
  "name": "",
  "active": false,
  "tosidebar": true,
```

```
"console": false,
"tostatus": false,
"complete": "false",
"x": 580,
"y": 700,
"wires": []
},
{
  "id": "b64695fb.712488",
  "type": "function",
  "z": "7c26dead.65492",
  "name": "live_12a",
  "func": "global.set('live12a',msg.payload.d.Live)\nreturn\n{payload:msg.payload.d.Live}",
  "outputs": 1,
  "noerr": 0,
  "x": 470,
  "y": 1080,
  "wires": [
    [
      "2bde7d60.314d12"
    ]
  ]
},
{
  "id": "e44562d4.d3db3",
  "type": "function",
  "z": "7c26dead.65492",
  "name": "live_46g",
  "func": "global.set('live46g',msg.payload.d.Live)\nreturn\n{payload:msg.payload.d.Live}",
  "outputs": 1,
  "noerr": 0,
  "x": 430,
  "y": 1400,
  "wires": [
    [
```

```

        "d2d8261e.264228"
    ]
]
},
{
    "id": "3aff7f9b.acd2e",
    "type": "function",
    "z": "7c26dead.65492",
    "name": "live_6a",
    "func": "global.set('live6a',msg.payload.d.Live)\nreturn
{payload:msg.payload.d.Live}",
    "outputs": 1,
    "noerr": 0,
    "x": 410,
    "y": 1700,
    "wires": [
        [
            "cc7f03b5.12fae"
        ]
    ]
},
{
    "id": "583a480d.d8c378",
    "type": "function",
    "z": "7c26dead.65492",
    "name": "live_23e",
    "func": "global.set('live23e',msg.payload.d.Live)\nreturn
{payload:msg.payload.d.Live}",
    "outputs": 1,
    "noerr": 0,
    "x": 410,
    "y": 2000,
    "wires": [
        [
            "aec4b04f.eeaf9"
        ]
    ]
}

```

```
},
{
  "id": "a0c9483c.3443f8",
  "type": "ibmiot in",
  "z": "7c26dead.65492",
  "authentication": "apiKey",
  "apiKey": "79f61d3d.c2e1f4",
  "inputType": "evt",
  "logicalInterface": "",
  "ruleId": "",
  "deviceId": "0025",
  "applicationId": "",
  "deviceType": "bus25s",
  "eventType": "+",
  "commandType": "",
  "format": "json",
  "name": "25s",
  "service": "registered",
  "allDevices": "",
  "allApplications": "",
  "allDeviceTypes": "",
  "allLogicalInterfaces": "",
  "allEvents": "",
  "allCommands": "",
  "allFormats": "",
  "qos": 0,
  "x": 190,
  "y": 2340,
  "wires": [
    [
      "df33fcc.a472e",
      "b63c1492.106328",
      "f3ed287d.18acb8",
      "5e166c71.0ffa64"
    ]
  ]
},
```

```

{
  "id": "5e166c71.0ffa64",
  "type": "debug",
  "z": "7c26dead.65492",
  "name": "",
  "active": true,
  "tosidebar": true,
  "console": false,
  "tostatus": false,
  "complete": "false",
  "x": 660,
  "y": 2340,
  "wires": []
},
{
  "id": "b63c1492.106328",
  "type": "function",
  "z": "7c26dead.65492",
  "name": "count_23e",
  "func": "global.set('count25s',msg.payload.d.Count)\nreturn
{payload:msg.payload.d.Count}",
  "outputs": 1,
  "noerr": 0,
  "x": 420,
  "y": 2440,
  "wires": [
    [
      "5e166c71.0ffa64"
    ]
  ]
},
{
  "id": "df33fcc.a472e",
  "type": "function",
  "z": "7c26dead.65492",
  "name": "location_25s",
  "func": "global.set('location25s',msg.payload.d.Location)\nreturn

```

```

{payload:msg.payload.d.Location}",
  "outputs": 1,
  "noerr": 0,
  "x": 400,
  "y": 2380,
  "wires": [
    [
      "5e166c71.0ffa64"
    ]
  ]
},
{
  "id": "9623c25c.4346",
  "type": "function",
  "z": "7c26dead.65492",
  "name": "25s",
  "func":
"msg.payload={\"location25s\":global.get('location25s'),\"count25s\":global.get('count2
5s'),\"live25s\":global.get('live25s')}\nreturn msg;",
  "outputs": 1,
  "noerr": 0,
  "x": 390,
  "y": 2520,
  "wires": [
    [
      "115d1ab7.806d95"
    ]
  ]
},
{
  "id": "dc36188f.f11b88",
  "type": "http in",
  "z": "7c26dead.65492",
  "name": "",
  "url": "/25s",
  "method": "get",
  "upload": false,

```



```

"swaggerDoc": "",
"x": 200,
"y": 2520,
"wires": [
  [
    "9623c25c.4346"
  ]
],
},
{
  "id": "115d1ab7.806d95",
  "type": "http response",
  "z": "7c26dead.65492",
  "name": "",
  "statusCode": "",
  "headers": {},
  "x": 670,
  "y": 2500,
  "wires": [],
},
{
  "id": "f3ed287d.18acb8",
  "type": "function",
  "z": "7c26dead.65492",
  "name": "live_25s",
  "func": "global.set('live25s',msg.payload.d.Live)\nreturn\n{payload:msg.payload.d.Live}",
  "outputs": 1,
  "noerr": 0,
  "x": 450,
  "y": 2300,
  "wires": [
    [
      "5e166c71.0ffa64"
    ]
  ]
},

```

```

{
  "id": "502b5259.eb15ac",
  "type": "ibmiot in",
  "z": "7c26dead.65492",
  "authentication": "apiKey",
  "apiKey": "79f61d3d.c2e1f4",
  "inputType": "evt",
  "logicalInterface": "",
  "ruleId": "",
  "deviceId": "0030",
  "applicationId": "",
  "deviceType": "bus30a",
  "eventType": "+",
  "commandType": "",
  "format": "json",
  "name": "30a",
  "service": "registered",
  "allDevices": "",
  "allApplications": "",
  "allDeviceTypes": "",
  "allLogicalInterfaces": "",
  "allEvents": "",
  "allCommands": "",
  "allFormats": "",
  "qos": 0,
  "x": 150,
  "y": 2660,
  "wires": [
    [
      "16663e55.4020c2",
      "794d5cd9.532904",
      "b2c58817.2b9c88",
      "45003f35.9ccbff"
    ]
  ]
},
{

```

```

    "id": "45003f35.9ccbf",
    "type": "debug",
    "z": "7c26dead.65492",
    "name": "",
    "active": false,
    "tosidebar": true,
    "console": false,
    "tostatus": false,
    "complete": "false",
    "x": 620,
    "y": 2660,
    "wires": []
  },
  {
    "id": "794d5cd9.532904",
    "type": "function",
    "z": "7c26dead.65492",
    "name": "count_30a",
    "func": "global.set('count30a',msg.payload.d.Count)\nreturn
{payload:msg.payload.d.Count}",
    "outputs": 1,
    "noerr": 0,
    "x": 380,
    "y": 2760,
    "wires": [
      [
        "45003f35.9ccbf"
      ]
    ]
  },
  {
    "id": "16663e55.4020c2",
    "type": "function",
    "z": "7c26dead.65492",
    "name": "location_30a",
    "func": "global.set('location30a',msg.payload.d.Location)\nreturn
{payload:msg.payload.d.Location}",

```

```

    "outputs": 1,
    "noerr": 0,
    "x": 360,
    "y": 2700,
    "wires": [
      [
        "45003f35.9ccbf"
      ]
    ]
  },
  {
    "id": "c9bd2d4d.63337",
    "type": "function",
    "z": "7c26dead.65492",
    "name": "30a",
    "func":
    "msg.payload={\"location30a\":global.get('location30a'),\"count30a\":global.get('count3
0a'),\"live30a\":global.get('live30a')}\nreturn msg;",
    "outputs": 1,
    "noerr": 0,
    "x": 350,
    "y": 2840,
    "wires": [
      [
        "ec14f6e0.42f858"
      ]
    ]
  },
  {
    "id": "55be1315.75218c",
    "type": "http in",
    "z": "7c26dead.65492",
    "name": "",
    "url": "/30a",
    "method": "get",
    "upload": false,
    "swaggerDoc": "",

```

```
"x": 160,
"y": 2840,
"wires": [
  [
    "c9bd2d4d.63337"
  ]
]
},
{
  "id": "ec14f6e0.42f858",
  "type": "http response",
  "z": "7c26dead.65492",
  "name": "",
  "statusCode": "",
  "headers": {},
  "x": 630,
  "y": 2820,
  "wires": []
},
{
  "id": "b2c58817.2b9c88",
  "type": "function",
  "z": "7c26dead.65492",
  "name": "live_30a",
  "func": "global.set('live30a',msg.payload.d.Live)\nreturn\n{payload:msg.payload.d.Live}",
  "outputs": 1,
  "noerr": 0,
  "x": 410,
  "y": 2620,
  "wires": [
    [
      "45003f35.9ccbf"
    ]
  ]
},
{
```

```
"id": "8b6c3bab.ef67f8",
"type": "ibmiot in",
"z": "7c26dead.65492",
"authentication": "apiKey",
"apiKey": "79f61d3d.c2e1f4",
"inputType": "evt",
"logicalInterface": "",
"ruleId": "",
"deviceId": "0001",
"applicationId": "",
"deviceType": "bus1a",
"eventType": "+",
"commandType": "",
"format": "json",
"name": "1a",
"service": "registered",
"allDevices": "",
"allApplications": "",
"allDeviceTypes": "",
"allLogicalInterfaces": "",
"allEvents": "",
"allCommands": "",
"allFormats": "",
"qos": 0,
"x": 160,
"y": 3034.800048828125,
"wires": [
  [
    "75b50e94.11676",
    "e5473f6e.4fd0f",
    "d3b3320d.1ecba",
    "d931a1c1.56eb7"
  ]
]
},
{
  "id": "d931a1c1.56eb7",
```

```
"type": "debug",
"z": "7c26dead.65492",
"name": "",
"active": true,
"tosidebar": true,
"console": false,
"tostatus": false,
"complete": "false",
"x": 630,
"y": 3034.800048828125,
"wires": []
},
{
  "id": "e5473f6e.4fd0f",
  "type": "function",
  "z": "7c26dead.65492",
  "name": "count_1a",
  "func": "global.set('count1a',msg.payload.d.Count)\nreturn\n{payload:msg.payload.d.Count}",
  "outputs": 1,
  "noerr": 0,
  "x": 380,
  "y": 3134.800048828125,
  "wires": [
    [
      "d931a1c1.56eb7"
    ]
  ]
},
{
  "id": "75b50e94.11676",
  "type": "function",
  "z": "7c26dead.65492",
  "name": "location_1a",
  "func": "global.set('location1a',msg.payload.d.Location)\nreturn\n{payload:msg.payload.d.Location}",
  "outputs": 1,
```

```
"noerr": 0,
"x": 370,
"y": 3074.800048828125,
"wires": [
  [
    "d931a1c1.56eb7"
  ]
]
},
{
  "id": "98767c11.6f949",
  "type": "function",
  "z": "7c26dead.65492",
  "name": "23e",
  "func":
"msg.payload={\"location1a\":global.get('location1a'),\"count1a\":global.get('count1a'),\"live1a\":global.get('live1a')}\nreturn msg;\",
  "outputs": 1,
  "noerr": 0,
  "x": 360,
  "y": 3214.800048828125,
  "wires": [
    [
      "a2b8f69b.d61f48"
    ]
  ]
},
{
  "id": "77729135.ebb85",
  "type": "http in",
  "z": "7c26dead.65492",
  "name": "",
  "url": "/1a",
  "method": "get",
  "upload": false,
  "swaggerDoc": "",
  "x": 160,
```



```
"y": 3214.800048828125,
"wires": [
  [
    "98767c11.6f949"
  ]
]
},
{
  "id": "a2b8f69b.d61f48",
  "type": "http response",
  "z": "7c26dead.65492",
  "name": "",
  "statusCode": "",
  "headers": {},
  "x": 640,
  "y": 3194.800048828125,
  "wires": []
},
{
  "id": "d3b3320d.1ecba",
  "type": "function",
  "z": "7c26dead.65492",
  "name": "live_1a",
  "func": "global.set('live1a',msg.payload.d.Live)\nreturn
{payload:msg.payload.d.Live}",
  "outputs": 1,
  "noerr": 0,
  "x": 420,
  "y": 2994.800048828125,
  "wires": [
    [
      "d931a1c1.56eb7"
    ]
  ]
},
{
  "id": "79f61d3d.c2e1f4",
```

```
"type": "ibmiot",
"z": "",
"name": "api",
"keepalive": "60",
"serverName": "xkpuae.messaging.internetofthings.ibmcloud.com",
"cleansession": true,
"appld": "",
"shared": false
},
{
  "id": "680cec11.38e8c4",
  "type": "ui_group",
  "z": "",
  "name": "details_bus",
  "tab": "f8514576.b77148",
  "order": 1,
  "disp": true,
  "width": "6",
  "collapse": true
},
{
  "id": "7e93cf49.13b68",
  "type": "ui_group",
  "z": "",
  "name": "Default",
  "tab": "76bfdc9e.04e814",
  "order": 2,
  "disp": true,
  "width": "6",
  "collapse": true
},
{
  "id": "f8514576.b77148",
  "type": "ui_tab",
  "z": "",
  "name": "Home",
  "icon": "dashboard",
```

```
    "disabled": false,
    "hidden": false
  },
  {
    "id": "76bfdc9e.04e814",
    "type": "ui_tab",
    "z": "",
    "name": "Home",
    "icon": "dashboard",
    "disabled": false,
    "hidden": false
  }
]
```

2. Python code:

```
import cv2
import numpy as np
import pyzbar.pyzbar as pyzbar
import pytesseract
import re
import time
import sys
import ibmiotf.application
import ibmiotf.device
import random

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

# TO READ THE COUNT VALUE FROM TXT FILE

prev_count = []
with open('sample.txt') as f:
    for line in f:
```

```

try:
    n = int(line)
    if n > 999 or line.strip() == '-0': continue #filtering numbers >999 and strings with
'-0'
    prev_count.append(n)
except ValueError:
    pass

final_count=prev_count[0]

down=int(input("PEOPLE GETTING DOWN : "))

count= final_count - down

print(count)
# SCANNING THE QR CODE

while count <= 50:
    _, frame = cap.read()

    decodedObjects = pyzbar.decode(frame)
    for obj in decodedObjects:
        a = obj.data;
        print("COUNTING PROCESS : ", count)
        if a == b'10001':
            count = count + 1
            print(" !! AUTHENTICAION VERIFIED :) !! HAVE A SAFE JOURNEY !!")
            time.sleep(3)

        else:
            print("!! OOPS SORRY :( YOUR AUTHENTICATION NOT VERIFIED !! PLEASE
SCAN WITH THE REQUIRED QR CODE !!")
            time.sleep(3)

cv2.imshow("frame", frame)

```

```

    key = cv2.waitKey(1)
    if key == 27:
        break
adv=int(input("PEOPLE GETTING DOWN NEXT STOP : "))
count= count - adv
if (count >= 50):
    print("!! BUS IS FULL PLEASE WAIT FOR NEXT BUS !!")
    count = 50
else:
    count = count
    print("COUNT INSIDE THE BUS IS :", count)

# DETEREMIN THE NEXT STOP

L=str(input("ENTER THE NEXT BUS-STOP : "))

live_check=str(input("IS BUS STILL RUNNING : Y/N "))

if(live_check == 'Y' or live_check=='y'):
    live_check='ONLINE'

elif(live_check=='N' or live_check=='n'):
    live_check='OFFLINE'
    count=0
    L='OFFLINE'

# CONFIGURE THE DEVICE FROM THE CLOUD
organization = "xkpuae" # organization ID
deviceType = "bus28f" # device type
deviceId = "0028" # device id
authMethod = "token"
authToken = "123456728" # token

try:
    deviceOptions = {"org": organization, "type": deviceType, "id": deviceId, "auth-method":
authMethod,

```

```
        "auth-token": authToken}
deviceCli = ibmiotf.device.Client(deviceOptions)
print("\n")
```

```
except Exception as e:
    print("Caught exception connecting device: %s" % str(e))
    sys.exit()
```

```
deviceCli.connect()
# !! AS WE ARE REPLACING HARDWARE WITH PYTHON PROGRAMMING THE COUNT
AND THE LOCATION VALUES ARE TO BE ENTRED MANUALLY !!!
```

```
bus=deviceType
print("BUS NUMBER: ",bus) #TO PRINT THE BUS NUMBER
```

```
#VALUES FOR LOCATION AND COUNT
print("\n")
```

```
C=count
S=live_check
cloud_count=0
s= random.randint(25,48)
while True:
    data = {'d': {'Location': L, 'Count': C,'Live': S}} #data formate
```

```
def myOnPublishCallback(): #to determine the location and count values
```

```
    print("Location = %s " % L, "Count = %s " % C ,"Live = %s " % S ,"to IBM Watson ")
```

```
    success = deviceCli.publishEvent("event", "json", data, qos=0,
on_publish=myOnPublishCallback)
    cloud_count=cloud_count+1
```

```
if not success:
```

```
    print("Problem in connecting to IOT platform")
    time.sleep(3)
```

```
if (cloud_count==4):
    break;
```

```
deviceCli.disconnect()
```

```
print(" PLEASE NOTE THE PRESENT COUNT : ",count)
```

```
fh = open('sample.txt','w')
fh.write("%d" %count)
fh.close()
```

```
#configure different device with specgic configuration
```

```
# IBM Watson Device Credentials each device has its own credentials
```

```
# To acess different bus different credential is listed below
```

```
# -----
```

```
# for BUS_NUMBER 29C:
#Device Type = "bus29c"
#Device ID = "0029"
#AuthMethod = "token"
#AuthToken = "123456729"
```

```
# -----
```

```
# FOR BUS_NUMBER 28F:
#Device Type="bus28f"
#Device ID = "0028"
#AuthMethod = "token"
```

#AuthToken ="123456728"

#For BUS_NUMBER 7G:

#Device Type ="bus7g"

#Device ID ="0007"

#AuthMethod ="token"

#AuthToken ="123456787"

#FOR BUS_NUMBER BUS12A :

#Device Type ="bus12a"

#Device ID ="0012"

#AuthMethod ="token"

#AuthToken ="123456712"

#FOR BUS_NUMBER BUS46G :

#Device Type ="bus46g"

#Device ID ="0046"

#AuthMethod ="token"

#AuthToken ="123456746"

#FOR BUS_NUMBER BUS6a :

#Device Type ="bus6a"

#Device ID ="0006"

#AuthMethod ="token"

#AuthToken ="123456786"

#FOR BUS_NUMBER BUS23E:

#Device Type ="bus23e"

#Device ID ="0023"

#AuthMethod ="token"

#AuthToken ="123456723"

#-----

#For bus number BUS25:

#Organization ID

#xkpuae

#Device Type

#bus25s

#Device ID

#0025

#Authentication Method

#use-token-auth

#Authentication Token

#123456725

#-----

#Four bus number bus30a :

#Organization ID

#xkpuae

#Device Type

#bus30a

#Device ID

#0030

#Authentication Method

#use-token-auth

#Authentication Token

#123456730

#-----

#For bus number bus1a :

#Organization ID

#xkpuae

#Device Type

#bus1a

#Device ID

#0001

#Authentication Method

#use-token-auth

#Authentication Token

3.RPA- Blueprism:

```
<process name="SMART-TRANSPORTATION" version="1.0" bpversion="5.0.11.0"
narrative="IBM-HACKTHON- SMART TRANSPORTATION" type="object"
runmode="Exclusive" preferredid="71831344-b3c8-447c-9944-5c792d30cc0c">
  <appdef>
    <element name="Application Root">
      <id>b6e3f476-e0d7-40b1-bc8e-2c3c093e9fcd</id>
      <type>Application</type>
      <basetype>Application</basetype>
      <datatype>unknown</datatype>
      <diagnose>False</diagnose>
    </element>
  </appdef>
  <view>
    <camerax>0</camerax>
    <cameray>0</cameray>
    <zoom version="2">1.25</zoom>
  </view>
  <preconditions />
  <endpoint narrative="" />
  <subsheet subsheetid="3ac0a0ca-8a02-4408-b679-5e9b6d403474" type="CleanUp"
published="True">
    <name>Clean Up</name>
    <view>
      <camerax>0</camerax>
      <cameray>0</cameray>
      <zoom version="2">1.25</zoom>
    </view>
  </subsheet>
  <subsheet subsheetid="225f2076-f39a-4856-866f-463b5e897ad6" type="Normal"
published="False">
    <name>REMINDER</name>
    <view>
      <camerax>-103</camerax>
      <cameray>123</cameray>
      <zoom version="2">0.625</zoom>
```

```
</view>
</subsheet>
<subsheet subsheetid="7880f13a-60cc-48db-8d4e-30250906012e" type="Normal"
published="False">
  <name>SEND</name>
  <view>
    <camerax>0</camerax>
    <cameray>0</cameray>
    <zoom version="2">1.25</zoom>
  </view>
</subsheet>
<stage stageid="b149571f-7f40-4194-adc9-9daed348ef8b" name="Start" type="Start">
  <loginhibit />
  <narrative>
  </narrative>
  <displayx>15</displayx>
  <displayy>-105</displayy>
  <displaywidth>60</displaywidth>
  <displayheight>30</displayheight>
  <font family="Segoe UI" size="10" style="Regular" color="000000" />
  <onsuccess>46bd8e0b-9850-4611-a77e-c93cd1c4d168</onsuccess>
</stage>
<stage stageid="46bd8e0b-9850-4611-a77e-c93cd1c4d168" name="End" type="End">
  <loginhibit />
  <narrative>
  </narrative>
  <displayx>15</displayx>
  <displayy>90</displayy>
  <displaywidth>60</displaywidth>
  <displayheight>30</displayheight>
  <font family="Segoe UI" size="10" style="Regular" color="000000" />
</stage>
<stage stageid="df322d3b-2af6-4b5a-af3b-e193208fad16" name="Stage1"
type="ProcessInfo">
  <narrative>
  </narrative>
  <displayx>-195</displayx>
```

```

<display>-105</display>
<displaywidth>150</displaywidth>
<displayheight>90</displayheight>
<font family="Segoe UI" size="10" style="Regular" color="000000" />
<references>
  <reference>System.Data.dll</reference>
  <reference>System.Xml.dll</reference>
  <reference>System.Drawing.dll</reference>
</references>
<imports>
  <import>System</import>
  <import>System.Drawing</import>
</imports>
<language>visualbasic</language>
<globalcode><![CDATA[]]></globalcode>
<code><![CDATA[]]></code>
</stage>
<stage stageid="ae5d814f-8343-4cf2-b2e0-50f7ba622e75" name="Clean Up"
type="SubSheetInfo">
  <subsheetid>3ac0a0ca-8a02-4408-b679-5e9b6d403474</subsheetid>
  <narrative>
  </narrative>
  <displayx>-195</displayx>
  <display>-105</display>
  <displaywidth>150</displaywidth>
  <displayheight>90</displayheight>
  <font family="Segoe UI" size="10" style="Regular" color="000000" />
</stage>
<stage stageid="59664bcc-0ecb-4039-a7ba-9b7086a53d32" name="Start"
type="Start">
  <subsheetid>3ac0a0ca-8a02-4408-b679-5e9b6d403474</subsheetid>
  <loginhibit />
  <narrative>
  </narrative>
  <displayx>15</displayx>
  <display>-105</display>
  <displaywidth>60</displaywidth>

```

```
<displayheight>30</displayheight>
<font family="Segoe UI" size="10" style="Regular" color="000000" />
<onsuccess>695c1b6d-ae59-41db-8374-a5dbb81a76fe</onsuccess>
</stage>
<stage stageid="695c1b6d-ae59-41db-8374-a5dbb81a76fe" name="End" type="End">
  <subsheetsid>3ac0a0ca-8a02-4408-b679-5e9b6d403474</subsheetsid>
  <loginhibit />
  <narrative>
  </narrative>
  <displayx>15</displayx>
  <displayy>90</displayy>
  <displaywidth>60</displaywidth>
  <displayheight>30</displayheight>
  <font family="Segoe UI" size="10" style="Regular" color="000000" />
</stage>
<stage stageid="50a52322-2a86-44d6-8cc5-137bd8370c68" name="REMINDER"
type="SubSheetInfo">
  <subsheetsid>225f2076-f39a-4856-866f-463b5e897ad6</subsheetsid>
  <narrative>
  </narrative>
  <displayx>-510</displayx>
  <displayy>-120</displayy>
  <displaywidth>150</displaywidth>
  <displayheight>90</displayheight>
  <font family="Segoe UI" size="10" style="Regular" color="000000" />
</stage>
<stage stageid="f0d03abf-ab3d-47c8-acf1-567a8e2740d2" name="Start" type="Start">
  <subsheetsid>225f2076-f39a-4856-866f-463b5e897ad6</subsheetsid>
  <loginhibit />
  <narrative>
  </narrative>
  <displayx>-45</displayx>
  <displayy>-330</displayy>
  <displaywidth>180</displaywidth>
  <displayheight>60</displayheight>
  <font family="Segoe UI" size="16" style="Bold" color="FF0000" />
  <onsuccess>5c5b8e78-e89c-4a72-8e85-6c78066cc9a6</onsuccess>
```

```

</stage>
<stage stageid="db106522-3b54-462c-81ef-0d3f80800b09" name="End" type="End">
  <subsHEETid>225f2076-f39a-4856-866f-463b5e897ad6</subsHEETid>
  <loginhibit />
  <narrative>
  </narrative>
  <displayx>105</displayx>
  <displayy>510</displayy>
  <displaywidth>120</displaywidth>
  <displayheight>60</displayheight>
  <font family="Segoe UI" size="16" style="Bold" color="333399" />
</stage>
<stage stageid="3275e3d6-25f4-4236-9fcd-e2afda17d5ad" name="Note1"
type="Note">
  <subsHEETid>3ac0a0ca-8a02-4408-b679-5e9b6d403474</subsHEETid>
  <narrative>Clean Up Page

```

This is an optional page where you might choose to perform some finalisation (or "cleanup") tasks as your business object is closed down.

The cleanup action will be called automatically immediately after closing your business object at the end of a business process.

You will not be able to call this action from a business process, nor will it be called at any other time than before the disposal of the business object.</narrative>

```

  <displayx>-180</displayx>
  <displayy>60</displayy>
  <displaywidth>180</displaywidth>
  <displayheight>230</displayheight>
  <font family="Segoe UI" size="10" style="Regular" color="000000" />
</stage>
<stage stageid="9751031a-8b7e-4d6c-89c1-10f7d95fb034" name="Note2"
type="Note">
  <narrative>Initialise Page

```

This is an optional page where you might choose to perform some initialisation tasks after your business object is loaded.

The initialise action will be called automatically immediately after loading your business object.

You will not be able to call this action from a business process, nor will it be called at any other time than after the creation of the object.</narrative>

```
<displayx>-180</displayx>
<displayy>60</displayy>
<displaywidth>180</displaywidth>
<displayheight>230</displayheight>
<font family="Segoe UI" size="10" style="Regular" color="000000" />
</stage>
<stage stageid="5c5b8e78-e89c-4a72-8e85-6c78066cc9a6"
name="CREATE-INSTANCE" type="Action">
  <subsheetsid>225f2076-f39a-4856-866f-463b5e897ad6</subsheetsid>
  <loginhibit />
  <narrative>
  </narrative>
  <displayx>-45</displayx>
  <displayy>-195</displayy>
  <displaywidth>210</displaywidth>
  <displayheight>90</displayheight>
  <font family="Segoe UI" size="16" style="Bold" color="800000" />
  <inputs>
    <input type="flag" name="Enable Events" narrative="Flag to indicate that events
should be enabled / disabled on the attached instance - defaulted to True" expr="" />
  </inputs>
  <outputs>
    <output type="number" name="handle" narrative="An integer which can be used to
identify the created instance in subsequent actions" stage="handle" />
  </outputs>
  <onsuccess>a933e169-37c6-4bc4-a1fd-1f21c8333dc1</onsuccess>
  <resource object="MS Excel VBO" action="Create Instance" />
</stage>
<stage stageid="a933e169-37c6-4bc4-a1fd-1f21c8333dc1"
name="WORKBOOK-OPENING" type="Action">
  <subsheetsid>225f2076-f39a-4856-866f-463b5e897ad6</subsheetsid>
```

```

<loginhibit />
<narrative>
</narrative>
<displayx>210</displayx>
<displayy>-195</displayy>
<displaywidth>180</displaywidth>
<displayheight>90</displayheight>
<font family="Segoe UI" size="16" style="Bold" color="339966" />
<inputs>
  <input type="number" name="handle" narrative="The integer handle identifying the
instance on which the required workbook should be opened. The default of zero
indicates the currently active instance." expr="[handle]" />
  <input type="text" name="File name" narrative="The path and name of the file which
should be opened."
expr="&quot;C:\Users\ebe\Desktop\Smart-transportation.xlsx&quot;" />
</inputs>
<outputs>
  <output type="text" name="Workbook Name" narrative="The name used by Excel to
identify the workbook - usually this is the file name (without the path)."
stage="Workbook Name" />
</outputs>
<onsuccess>0c7c2bcc-da69-4a93-919a-5da26043321c</onsuccess>
<resource object="MS Excel VBO" action="Open Workbook" />
</stage>
<stage stageid="0c7c2bcc-da69-4a93-919a-5da26043321c"
name="WORKBOOK-AS-COLLECTION" type="Action">
  <subsheetsid>225f2076-f39a-4856-866f-463b5e897ad6</subsheetsid>
  <loginhibit />
  <narrative>
  </narrative>
  <displayx>510</displayx>
  <displayy>-195</displayy>
  <displaywidth>180</displaywidth>
  <displayheight>90</displayheight>
  <font family="Segoe UI" size="16" style="Bold" color="333300" />
  <inputs>
    <input type="number" name="handle" narrative="The integer handle identifying the

```


instance on which the worksheet which should be retrieved resides. The default of zero indicates the currently active instance." expr="[handle]" />

<input type="text" name="Workbook Name" narrative="The name of the workbook which contains the sheet required. The default empty text indicates the currently active workbook on the specified instance." expr="[Workbook Name]" />

<input type="text" name="Worksheet Name" narrative="The name of the worksheet within the specified workbook which should be written to a collection. The default empty text indicates the currently active worksheet within the specified workbook." expr=""Sheet1"" />

</inputs>

<outputs>

<output type="collection" name="Data" narrative="The collection containing the data from the specified worksheet - the column IDs will be gleaned from the first row on the sheet being retrieved." stage="Data-excel" />

</outputs>

<onsuccess>80c0e1f0-9397-4b8f-b7f4-f219ce8593fc</onsuccess>

<resource object="MS Excel VBO" action="Get Worksheet As Collection" />

</stage>

<stage stageid="61dfcc24-3b4a-445e-8194-2dee90ba1fa8" name="handle" type="Data">

<subsheetsid>225f2076-f39a-4856-866f-463b5e897ad6</subsheetsid>

<narrative>

</narrative>

<displayx>-675</displayx>

<displayy>75</displayy>

<displaywidth>90</displaywidth>

<displayheight>30</displayheight>

<datatype>number</datatype>

<initialvalue />

<private />

<alwaysinit />

</stage>

<stage stageid="6cb34b59-2b69-40e6-9867-0604e6ceb099" name="Workbook Name" type="Data">

<subsheetsid>225f2076-f39a-4856-866f-463b5e897ad6</subsheetsid>

<narrative>

```
</narrative>
<displayx>-495</displayx>
<displayy>90</displayy>
<displaywidth>270</displaywidth>
<displayheight>60</displayheight>
<font family="Segoe UI" size="14" style="Bold" color="000000" />
<datatype>text</datatype>
<initialvalue />
<private />
<alwaysinit />
</stage>
<stage stageid="a6b2ad73-551b-44df-b9b5-b0b2aaf6b324" name="Data-excel"
type="Collection">
  <subsheetid>225f2076-f39a-4856-866f-463b5e897ad6</subsheetid>
  <narrative>
  </narrative>
  <displayx>-720</displayx>
  <displayy>225</displayy>
  <displaywidth>180</displaywidth>
  <displayheight>90</displayheight>
  <font family="Segoe UI" size="14" style="Bold" color="000000" />
  <datatype>collection</datatype>
  <private />
  <alwaysinit />
  <collectioninfo>
    <field name="Name" type="text" />
    <field name="Email" type="text" />
    <field name="Date" type="date" />
  </collectioninfo>
</stage>
<stage stageid="1faae0cb-c14d-4e44-93f5-18f889fd2cbf" name="LOOP-START"
type="LoopStart">
  <subsheetid>225f2076-f39a-4856-866f-463b5e897ad6</subsheetid>
  <loginhibit />
  <narrative>
  </narrative>
  <displayx>105</displayx>
```

```

<displayy>-90</displayy>
<displaywidth>180</displaywidth>
<displayheight>60</displayheight>
<font family="Segoe UI" size="16" style="Bold" color="3366FF" />
<onsuccess>76e3fd15-2057-4bcc-bc0f-de6ef93c1700</onsuccess>
<groupid>3b006140-a7c8-4425-b3e5-e7d1ff5906d0</groupid>
<looptype>ForEach</looptype>
<loopdata>Data-excel</loopdata>
</stage>
<stage stageid="aeba5c88-5248-4f06-8975-ebf162a87341" name="LOOP-START"
type="LoopEnd">
  <subsheetid>225f2076-f39a-4856-866f-463b5e897ad6</subsheetid>
  <loginhibit />
  <narrative>
</narrative>
  <displayx>105</displayx>
  <displayy>285</displayy>
  <displaywidth>180</displaywidth>
  <displayheight>60</displayheight>
  <font family="Segoe UI" size="16" style="Bold" color="008000" />
  <onsuccess>593c4e36-8501-48ad-bee0-e1803f52bf28</onsuccess>
  <groupid>3b006140-a7c8-4425-b3e5-e7d1ff5906d0</groupid>
</stage>
<stage stageid="76e3fd15-2057-4bcc-bc0f-de6ef93c1700" name="CALCULATION"
type="MultipleCalculation">
  <subsheetid>225f2076-f39a-4856-866f-463b5e897ad6</subsheetid>
  <loginhibit />
  <narrative>
</narrative>
  <displayx>105</displayx>
  <displayy>15</displayy>
  <displaywidth>270</displaywidth>
  <displayheight>60</displayheight>
  <font family="Segoe UI" size="16" style="Bold" color="808000" />
  <onsuccess>d6d916a3-a8e3-4bb1-a60f-aafa7072d305</onsuccess>
  <steps>
    <calculation expression="[Data-excel.Name]" stage="Name" />

```

```

    <calculation expression="[Data-excel.Email]" stage="Email" />
    <calculation expression="[Data-excel.Date]" stage="Date" />
    <calculation expression=" Today() - [Date]" stage="Date-difference" />
  </steps>
</stage>
<stage stageid="53ac73b6-de0f-48c2-8297-70ec4ff6dc7b" name="Name" type="Data">
  <subsHEETid>225f2076-f39a-4856-866f-463b5e897ad6</subsHEETid>
  <narrative>
  </narrative>
  <displayx>-570</displayx>
  <displayy>315</displayy>
  <displaywidth>90</displaywidth>
  <displayheight>60</displayheight>
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  <initialvalue />
  <private />
  <alwaysinit />
</stage>
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type="Data">
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  <narrative>
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  <displayy>330</displayy>
  <displaywidth>180</displaywidth>
  <displayheight>90</displayheight>
  <font family="Segoe UI" size="14" style="Bold" color="000000" />
  <datatype>text</datatype>
  <initialvalue />
  <private />
  <alwaysinit />
</stage>
<stage stageid="d64493fa-b3cc-4aed-9f95-c0b02bdca3cf" name="Date" type="Data">
  <subsHEETid>225f2076-f39a-4856-866f-463b5e897ad6</subsHEETid>
  <narrative>

```

</narrative>
<displayx>-555</displayx>
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</stage>
<stage stageid="8d6a6f23-8842-4c6d-bdb8-a35ba605dbd2" name="Date-difference"
type="Data">
 <subsheetsid>225f2076-f39a-4856-866f-463b5e897ad6</subsheetsid>
 <narrative>
 </narrative>
 <displayx>-735</displayx>
 <displayy>135</displayy>
 <displaywidth>150</displaywidth>
 <displayheight>60</displayheight>

 <datatype>timespan</datatype>
 <initialvalue />
 <private />
 <alwaysinit />
</stage>
<stage stageid="d6d916a3-a8e3-4bb1-a60f-aafa7072d305" name="CHECK-VALIDITY"
type="Decision">
 <subsheetsid>225f2076-f39a-4856-866f-463b5e897ad6</subsheetsid>
 <loginhibit />
 <narrative>
 </narrative>
 <displayx>105</displayx>
 <displayy>135</displayy>
 <displaywidth>210</displaywidth>
 <displayheight>150</displayheight>


```
<decision expression="[Date-difference] >= [Date-validity]" />
<ontrue>8f85b18d-6f14-43c5-a358-e1140fa2bba0</ontrue>
<onfalse>aeba5c88-5248-4f06-8975-ebf162a87341</onfalse>
</stage>
<stage stageid="8f85b18d-6f14-43c5-a358-e1140fa2bba0"
name="CONFIGURE-ADMIN-MAIL-ID" type="Action">
  <subsheetsid>225f2076-f39a-4856-866f-463b5e897ad6</subsheetsid>
  <loginhibit />
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</narrative>
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<displaywidth>180</displaywidth>
<displayheight>120</displayheight>
<font family="Segoe UI" size="16" style="Bold" color="333300" />
<inputs>
  <input type="text" name="Username" narrative="The POP3 and SMTP Username"
expr="[ADMIN-NAME]" />
  <input type="password" name="Password" narrative="The POP3 and SMTP
Password" expr="[ADMIN-PASSWORD]" />
  <input type="text" name="POP3 Server" narrative="The POP3 Server address e.g.
pop.domain.com" expr="&quot;pop.gmail.com&quot;" />
  <input type="text" name="SMTP Server" narrative="The SMTP Server address e.g.
smtp.domain.com" expr="&quot;smtp.gmail.com&quot;" />
  <input type="number" name="POP3 Port" narrative="The POP3 Port, e.g. 110 or 995"
expr="110" />
  <input type="number" name="SMTP Port" narrative="The SMTP Port, e.g 25 or 465"
expr="587" />
  <input type="flag" name="POP3 UseSSL" narrative="Whether to use SSL for POP3"
expr="True" />
  <input type="flag" name="SMTP UseSSL" narrative="Whether to use SSL for SMTP"
expr="True" />
</inputs>
<onsuccess>35efb5bf-74ed-458b-93f9-9ff326b05235</onsuccess>
<resource object="Email - POP3/SMTP" action="Configure" />
</stage>
<stage stageid="35efb5bf-74ed-458b-93f9-9ff326b05235" name="EMAIL-SENDING"
```

```
type="Action">
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  <loginhibit />
  <narrative>
  </narrative>
  <displayx>555</displayx>
  <displayy>135</displayy>
  <displaywidth>210</displaywidth>
  <displayheight>90</displayheight>
  <font family="Segoe UI" size="16" style="Bold" color="800000" />
  <inputs>
    <input type="text" name="From" narrative="The email address of the sender."
    expr="[ADMIN-NAME]" />
    <input type="text" name="To" narrative="The email address of the recipient. To
    address multiple recipients use the format &quot;john.smith@example.com,
    henry.jones@example.com&quot;; OR &quot;John Smith
    &lt;john.smith@example.com&gt;; Henry Jones
    &lt;henry.jones@example.com&gt;&quot;;" expr="[Email]" />
    <input type="text" name="Subject" narrative="The subject of the email." expr="!!
    REMINDER-VALIDITY-EXPIRING-SOON !!" />
    <input type="text" name="Body" narrative="The body of the email." expr="&quot;Hi,We
    hope you and your family is safe . This the reminder mail regrading your DIGITAL PASS
    expiring soon please recharge it soon to avoid deactivation of your E-TICKET.If paid
    please dont consider&quot;" />
    <input type="collection" name="Attachments" narrative="A Collection containing a list
    of files to add to the email as attachments." expr="" />
    <input type="flag" name="BodyIsHTML" narrative="Indicates if the body should be
    sent as HTML" expr="False" />
  </inputs>
  <onsuccess>b77600d1-ea9c-4653-bfe3-2affb3b64851</onsuccess>
  <resource object="Email - POP3/SMTP" action="Send Message" />
</stage>
<stage stageid="1ea43560-a400-4a4a-96c5-4ba166fcc50c" name="Date-validity"
type="Data">
  <subsheetsid>225f2076-f39a-4856-866f-463b5e897ad6</subsheetsid>
  <loginhibit />
  <narrative>
```

```
</narrative>
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<private />
<alwaysinit />
</stage>
<stage stageid="d05ceffb-9009-4aaf-80fe-116f5a43e901" name="Recover"
type="Recover">
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  <loginhibit />
  <narrative>
  </narrative>
  <displayx>750</displayx>
  <displayy>135</displayy>
  <displaywidth>120</displaywidth>
  <displayheight>60</displayheight>
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  <onsuccess>cb0962c6-5068-4a6f-99b7-07166bdb6773</onsuccess>
</stage>
<stage stageid="cb0962c6-5068-4a6f-99b7-07166bdb6773" name="Resume"
type="Resume">
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  <loginhibit />
  <narrative>
  </narrative>
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  <displayy>285</displayy>
  <displaywidth>150</displaywidth>
  <displayheight>60</displayheight>
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  <onsuccess>b77600d1-ea9c-4653-bfe3-2affb3b64851</onsuccess>
</stage>
```



```
<stage stageid="12f1638a-ef28-4b66-a361-3fd39dda1ffe" name="ADMIN-NAME"
type="Data">
  <subsheetsid>225f2076-f39a-4856-866f-463b5e897ad6</subsheetsid>
  <loginhibit />
  <narrative>
  </narrative>
  <displayx>-750</displayx>
  <displayy>315</displayy>
  <displaywidth>300</displaywidth>
  <displayheight>90</displayheight>
  <font family="Segoe UI" size="14" style="Bold" color="000000" />
  <datatype>text</datatype>
  <initialvalue xml:space="preserve">ebestephan1@gmail.com</initialvalue>
  <alwaysinit />
</stage>
<stage stageid="fe26f6f5-10ca-4cfd-8fb9-04b583303e6a" name="ADMIN-PASSWORD"
type="Data">
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  <loginhibit />
  <narrative>
  </narrative>
  <displayx>-750</displayx>
  <displayy>405</displayy>
  <displaywidth>210</displaywidth>
  <displayheight>90</displayheight>
  <font family="Segoe UI" size="14" style="Bold" color="000000" />
  <datatype>password</datatype>
  <initialvalueenc>4,23,21,94,4,77,21,37,112,71,70,3,89</initialvalueenc>
  <alwaysinit />
</stage>
<stage stageid="165884c9-4303-4cc3-994c-4be2984185ad" name="SEND"
type="SubSheetInfo">
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  <displayy>-105</displayy>
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```
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type="Start">
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  </narrative>
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  <displayy>75</displayy>
  <displaywidth>90</displaywidth>
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<stage stageid="4540504c-3595-4d80-9865-a5799a9b9d90" name="CONFIG"
type="Action">
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  </narrative>
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  <displaywidth>90</displaywidth>
```

```

<displayheight>60</displayheight>
<font family="Segoe UI" size="16" style="Bold" color="FF6600" />
<inputs>
  <input type="text" name="Username" narrative="The POP3 and SMTP Username"
expr="[ADMIN-NAME]" />
  <input type="password" name="Password" narrative="The POP3 and SMTP
Password" expr="[ADMIN-PASSWORD]" />
  <input type="text" name="POP3 Server" narrative="The POP3 Server address e.g.
pop.domain.com" expr="&quot;pop.gmail.com&quot;" />
  <input type="text" name="SMTP Server" narrative="The SMTP Server address e.g.
smtp.domain.com" expr="&quot;smtp.gmail.com&quot;" />
  <input type="number" name="POP3 Port" narrative="The POP3 Port, e.g. 110 or 995"
expr="110" />
  <input type="number" name="SMTP Port" narrative="The SMTP Port, e.g 25 or 465"
expr="587" />
  <input type="flag" name="POP3 UseSSL" narrative="Whether to use SSL for POP3"
expr="True" />
  <input type="flag" name="SMTP UseSSL" narrative="Whether to use SSL for SMTP"
expr="True" />
</inputs>
<onsuccess>c9cbb0fc-482f-45ff-acc4-342e4fe297d8</onsuccess>
<resource object="Email - POP3/SMTP" action="Configure" />
</stage>
<stage stageid="c9cbb0fc-482f-45ff-acc4-342e4fe297d8" name="SEND-MESSAGE"
type="Action">
  <subsheetid>7880f13a-60cc-48db-8d4e-30250906012e</subsheetid>
  <loginhibit />
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  </narrative>
  <displayx>15</displayx>
  <displayy>-15</displayy>
  <displaywidth>120</displaywidth>
  <displayheight>60</displayheight>
  <font family="Segoe UI" size="16" style="Bold" color="008000" />
  <inputs>
    <input type="text" name="From" narrative="The email address of the sender."
expr="[ADMIN-NAME]" />

```

<input type="text" name="To" narrative="The email address of the recipient. To address multiple recipients use the format "john.smith@example.com, henry.jones@example.com" OR "John Smith

<john.smith@example.com>; Henry Jones

<henry.jones@example.com>";" expr="[ADMIN-NAME]" />

<input type="text" name="Subject" narrative="The subject of the email." expr=""Email sent to user"" />

<input type="text" name="Body" narrative="The body of the email." expr=""Reminder messages are sent to the user using the below file .Please update the file into the IBM CLOUD OBJECT STORAGE"" />

<input type="collection" name="Attachments" narrative="A Collection containing a list of files to add to the email as attachments." expr="[path]" />

<input type="flag" name="BodyIsHTML" narrative="Indicates if the body should be sent as HTML" expr="False" />

</inputs>

<onsuccess>c8f48548-5d69-4f37-99ee-00c7183aaaf9</onsuccess>

<resource object="Email - POP3/SMTP" action="Send Message" />

</stage>

<stage stageid="f7824f48-5451-470c-a4c4-160d141350aa" name="path" type="Collection">

<subsheetsid>7880f13a-60cc-48db-8d4e-30250906012e</subsheetsid>

<loginhibit />

<narrative>

</narrative>

<displayx>225</displayx>

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<alwaysinit />

<collectioninfo>

<field name="Path" type="text" />

</collectioninfo>

<initialvalue>

<row>

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    <field name="Path" type="text"
value="C:\Users\ebe\Desktop\Smart-transportation.xlsx" />
    </row>
    </initialvalue>
    </stage>
    <stage stageid="80c0e1f0-9397-4b8f-b7f4-f219ce8593fc" name="Anchor3"
type="Anchor">
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    <loginhibit />
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    <onsuccess>1faae0cb-c14d-4e44-93f5-18f889fd2cbf</onsuccess>
    </stage>
    <stage stageid="b77600d1-ea9c-4653-bfe3-2affb3b64851" name="Anchor1"
type="Anchor">
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    <loginhibit />
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    </narrative>
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    <displayy>285</displayy>
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    <onsuccess>aeba5c88-5248-4f06-8975-ebf162a87341</onsuccess>
    </stage>
    <stage stageid="bfa1d167-509c-4c64-8428-1d003ec2ff61" name="DATA-VARIABLES"
type="Block">
    <subsheetid>225f2076-f39a-4856-866f-463b5e897ad6</subsheetid>
    <loginhibit />
    <narrative>
    </narrative>

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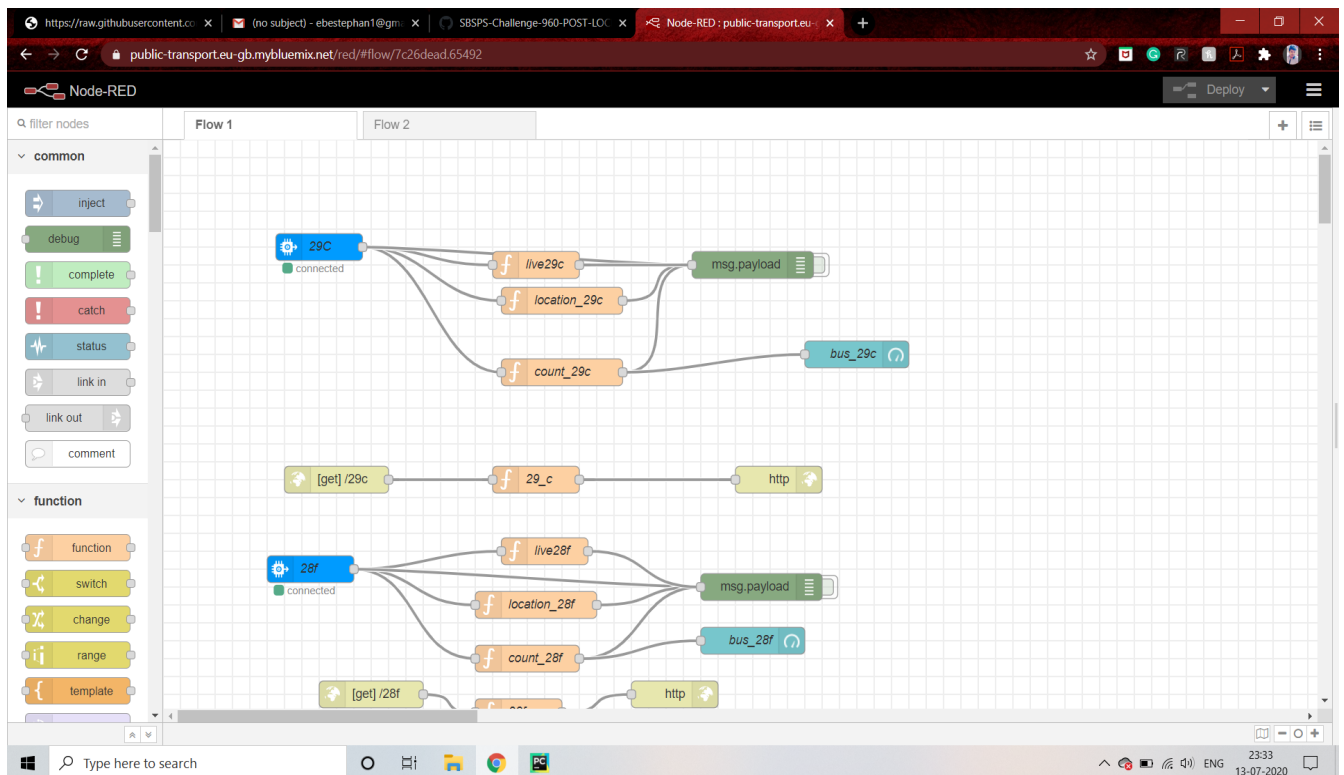
</stage>
<stage stageid="67e32be1-7130-46cc-b1a6-90e6b66f5dd7" name="EMAIL"
type="Block">
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</stage>
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type="Block">
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 <loginhibit />
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 </narrative>
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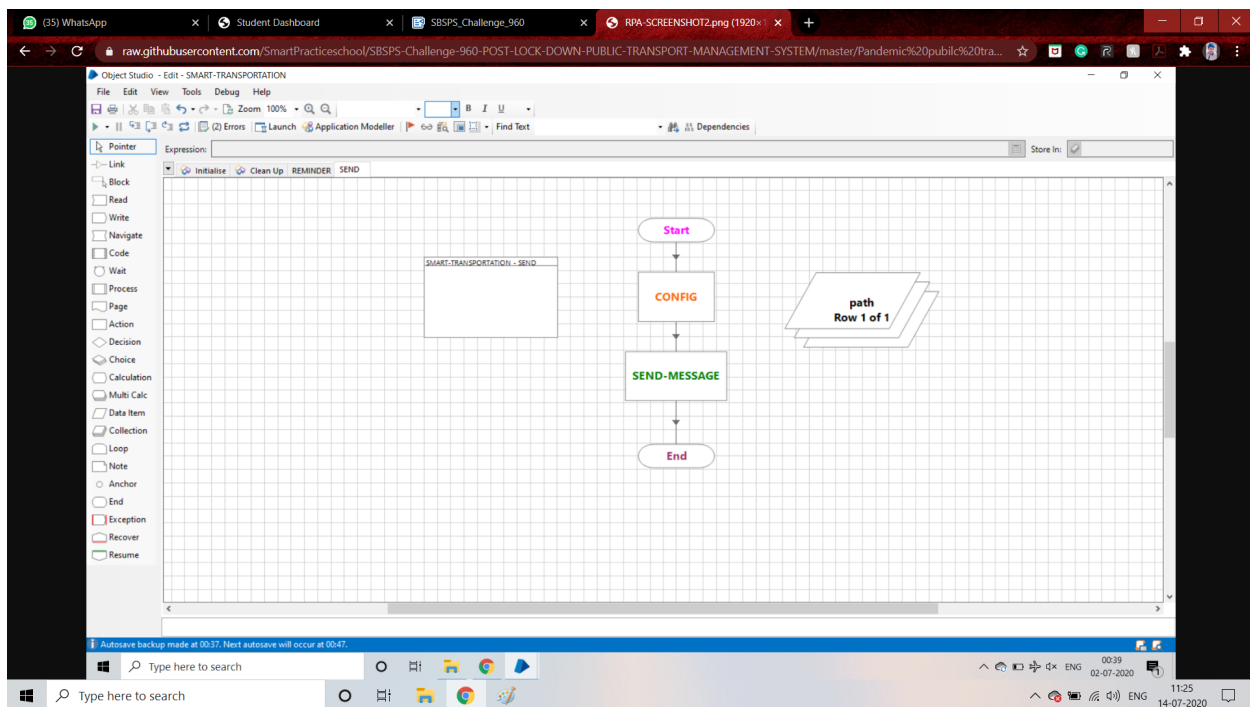
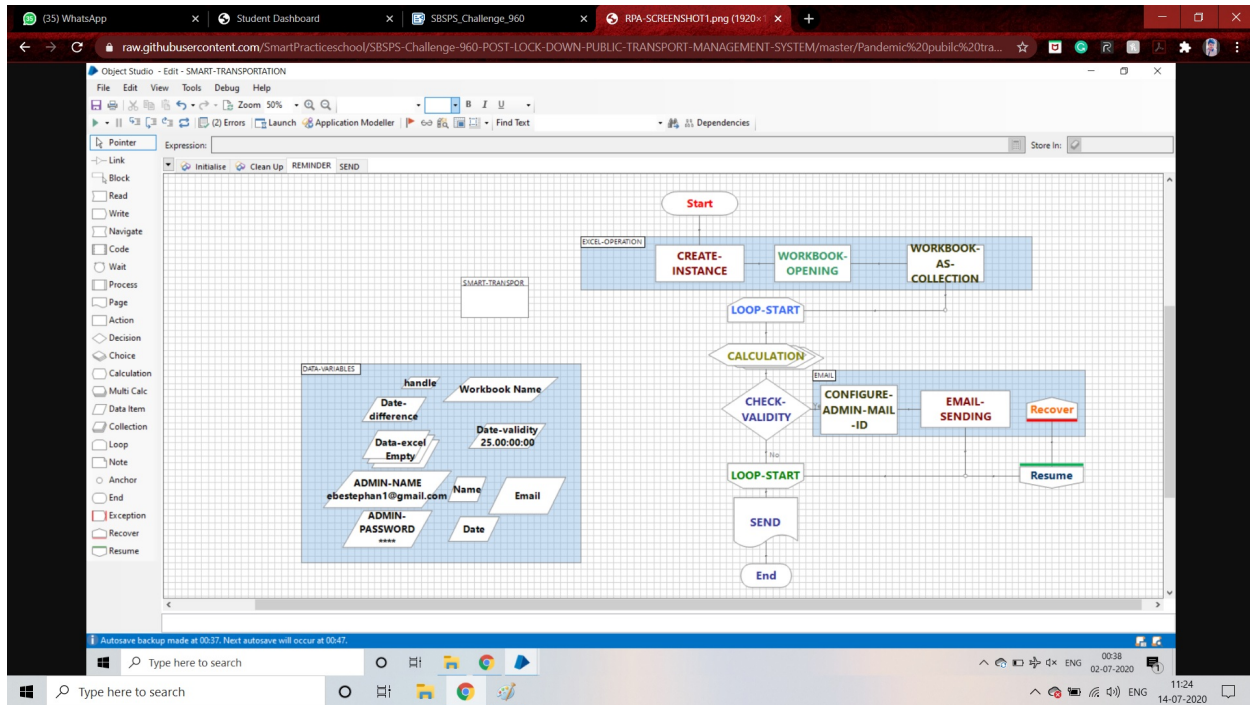
</stage>
<stage stageid="593c4e36-8501-48ad-bee0-e1803f52bf28" name="SEND"
type="SubSheet">
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<processid>7880f13a-60cc-48db-8d4e-30250906012e</processid>
</stage>
</process>
```

NODE-RED: (FLOW-DIAGRAM)



RPA- BLUEPRISM: (WORKFLOW)



7:49

Voi LTE+
LTE1

HOME



SMART-TRANSPORT-MANAGEMENT



DIGITAL PASS :

QR CODE

PUBLIC BUS :

CLICK HERE

!! STAY SAFE & HAPPY JOURNEY !!

CLICK THE VIDEO BELOW

Instead of touching,
start greeting people
hands-free!



7:49

Voi) LTE+
LTE1 ↓↑

Digital_pass



**ENTER THE PASS WORD TO ACCESS
THE QR CODE**

PASSWORD PLEASE

ENTER

**SINCE THIS IS A DEMO APP PASSWORD
IS "GERALD@"**

7:50

Voi) LTE+
LTE1 ↓↑

QR_CODE



!! YOUR DIGITAL PASS !!



**PLEASE SCAN THE CODE TO
BOARD THE BUS**

HOME

8:08

Voi) LTE+
LTE1 ↓↑

BUS-DETAILS



LIVE LOCATION AND COUNT UPDATER

DESCRIPTION :

Please click the below button and select the location and then bus number to get the real-time bus location and count value. If the status is "OFFLINE" = BUS IS NOT TRAVELLING . "ONLINE" = BUS IS ON ITS WAY TO UR BUS

BUS
NUMBER :

CLICK HERE

To conform the bus number ,Click OK

BUS-TIMING

OK

BUS-ROUTE

LOCATION :

COUNT : Please wait

STATUS : Please wait

Please wait

8:20

Voj) LTE+
LTE1

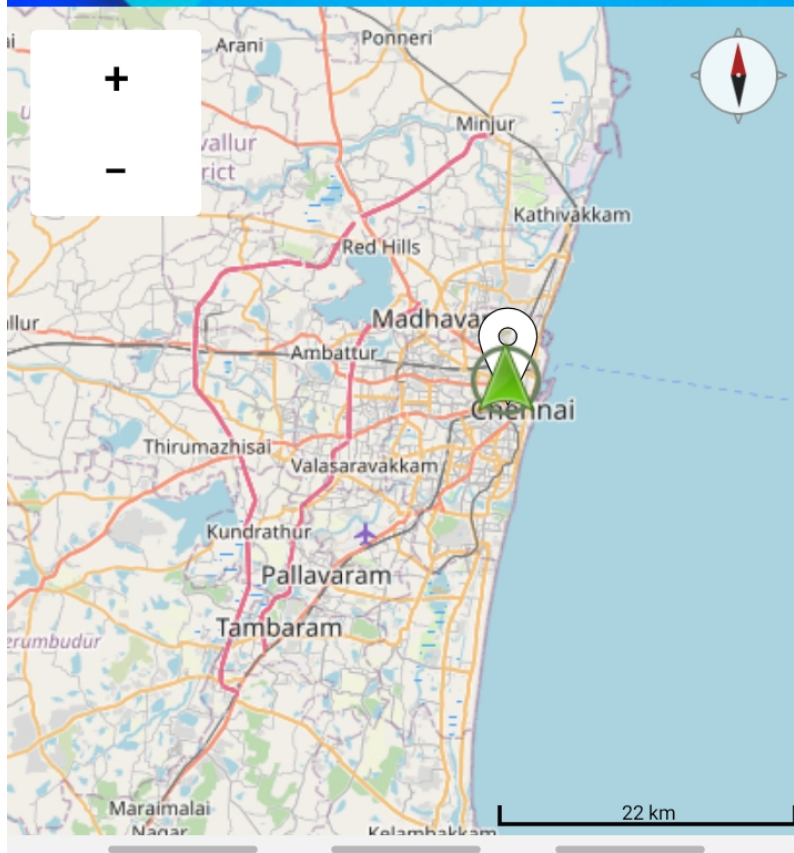
BUS- ROUTE



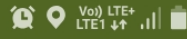
BUS - ROUTE IDENTIFICATION

CLICK HERE

Click the above button to know the required bus route



8:22



BUS-TIMING



BUS SCHEDULE

[CLICK HERE](#)

To know about the bus timing in various bus stop please click the above button and select the bus stop name

REFERENCE LINK :

Git-hub :

<https://github.com/SmartPracticeschool/SBSPS-Challenge-960-POST-LOCK-DOWN-PUBLIC-TRANSPORT-MANAGEMENT-SYSTEM>