

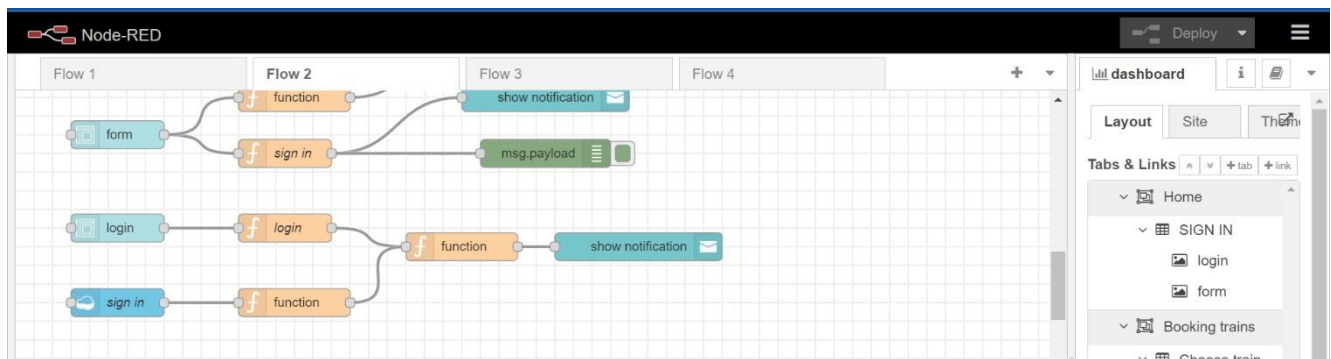
SPRINT-1

Date	19 NOVEMBER 2022
Team ID	PNT2022TMID29390
Project Name	SMART SOLUTIONS FOR RAILWAYS

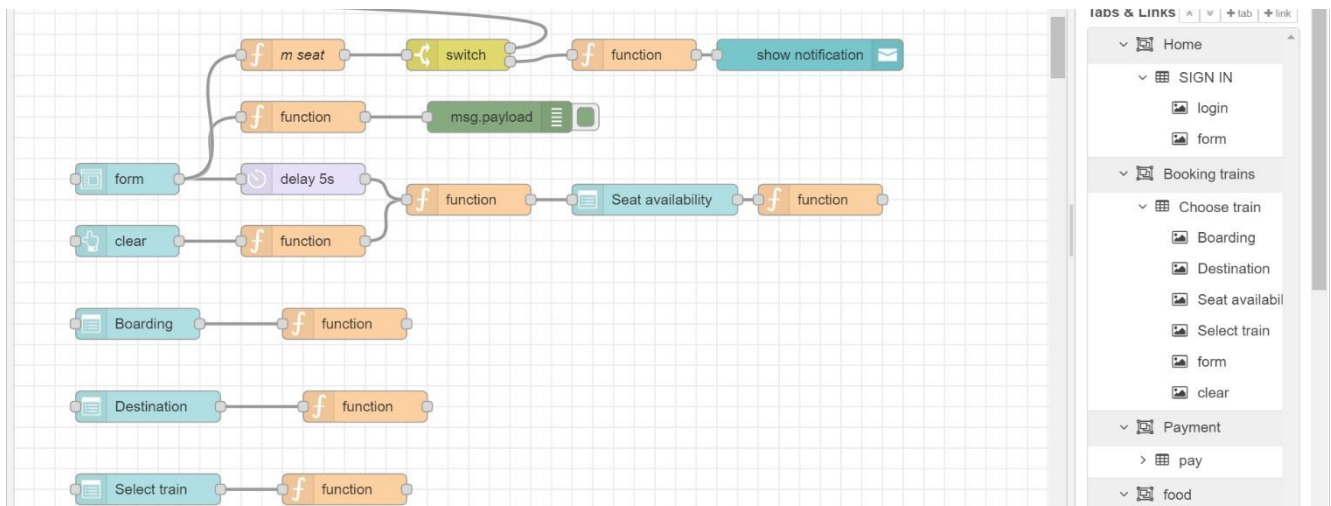
PROCEDURE:

- Srep1: Develop node red application
- Step2: Install the required nodes from manage palette option
- Step3: Connect the node flow
- Step4: Deploy the flow

WEB APPLICATION :



NODES TO BOOK TRAIN:



FUNCTION NODE COMMAND TO INDICATE THE AVAILABLE SEATS:

```
var a=global.get('a') var
s= []
for(let i=0;i<a.length==0;i++){
s.push(a[i]) }
if(s.length==0){
    msg.options=[{"No seats available":0}]
}
else{
msg.options= s
}
msg.payload= s
return msg;
```

FUNCTION NODE COMMAND TO CHOOSE THE AVAILABLE SEATS:

```
var s=global.get('s') var
a=global.get('a') function
reg(x){ for(let
i=0;i<a.length;i++){
if(a[i]==x){
    a.splice(i,1)
    }
}
}
if(s==1){
global.set('s1',s)
reg(s)
}
else if(s==2){
global.set('s2',s)
reg(s)
}
else if(s==3){
global.set('s3',s)
reg(s)
}
else if(s==4){
global.set('s4',s)
reg(s)
}
else if(s==4){
global.set('s4',s)
reg(s)
}
return msg;
```

FUNCTION NODE COMMAND TO STORE DATA IN DATABASE:

```
var m=global.get('m')
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')
}
return msg;
```

FORM DETAILS:

The screenshot displays the Node-RED web interface. On the left, the 'Edit form node' panel is open, showing the configuration for a form node. The 'Properties' section includes a 'Group' dropdown set to '[Booking trains] Choose train', a 'Size' dropdown set to 'auto', and a 'Label' text field containing 'optional label'. Below these, the 'Form elements' section contains a table with three rows of form elements:

Label	Name	Type	Required	UiRows	Remove
Name	name	Text	<input checked="" type="checkbox"/>		
Age	age	Number	<input checked="" type="checkbox"/>		
Mobile num	num	Number	<input checked="" type="checkbox"/>		

At the bottom of the form elements section, there is a checkbox labeled 'Enabled' which is currently unchecked.

On the right side of the interface, the 'debug' console is open, showing a list of messages. The messages are JSON objects containing train information, such as:

```
{ name: "Train1", lat: 13.08363, lon: 80.2708 }
```

```
{ name: "Train2", lat: 12.40797, lon: 79.8141 }
```

```
{ name: "Train1", lat: 11.83331, lon: 79.37465 }
```

```
{ name: "Train1", lat: 11.59664, lon: 78.69899 }
```

```
{ name: "Train1", lat: 11.63431, lon: 78.11122 }
```

SEAT DROPDOWN BOX:

The screenshot shows the Node-RED interface with the 'Edit dropdown node' configuration panel open. The panel includes the following fields:

- Delete:** A button to delete the node.
- Cancel:** A button to cancel the edit.
- Done:** A button to save the changes.
- Properties:**
 - Group:** [Booking trains] Choose train
 - Size:** auto
 - Label:** Seat availability
 - Tooltip:** optional tooltip
 - Placeholder:** Select option
 - Options:** A list of options with a dropdown menu and a text input field. The options are: 1, 2, 3, 4.
- Enabled:** A checkbox to enable the node.

The right sidebar shows the debug console with the following log messages:

```
11/15/2022, 11:23:59 AM node: 833946aa7ef65319  
iot-2/type/Sudha/id/45/evt/status/fmt/json : msg.payload  
: Object  
{  
  name: "Train1",  
  lat: 13.08363,  
  lon: 80.2788  
}  
11/15/2022, 11:24:01 AM node: 833946aa7ef65319  
iot-2/type/Sudha/id/45/evt/status/fmt/json : msg.payload  
: Object  
{  
  name: "Train2",  
  lat: 12.40797,  
  lon: 79.8141  
}  
11/15/2022, 11:24:03 AM node: 833946aa7ef65319  
iot-2/type/Sudha/id/45/evt/status/fmt/json : msg.payload  
: Object  
{  
  name: "Train1",  
  lat: 11.83331,  
  lon: 79.37465  
}  
11/15/2022, 11:24:09 AM node: 833946aa7ef65319  
iot-2/type/Sudha/id/45/evt/status/fmt/json : msg.payload  
: Object  
{  
  name: "Train1",  
  lat: 11.59664,  
  lon: 78.69899  
}  
11/15/2022, 11:24:15 AM node: 833946aa7ef65319  
iot-2/type/Sudha/id/45/evt/status/fmt/json : msg.payload  
: Object  
{  
  name: "Train1",  
  lat: 11.63431,  
  lon: 78.11122  
}
```

WEB UI OUTPUT:

[Home](#)

SIGN IN

user name *

sudha

password *

55

confirm password *

55

SUBMIT

CANCEL

login


email *

password *

SUBMIT

CANCEL

WEB UI FOR TRAIN BOOKING:

 Booking trains

Choose train

Boarding Coimbatore ▼

Destination Chennai ▼

Seat availability Select option ▼

Select train Blue mountain ▼

Name *
sudha

Age *
20

Mobile num *
9876543210

SUBMIT

CANCEL

CLEAR