

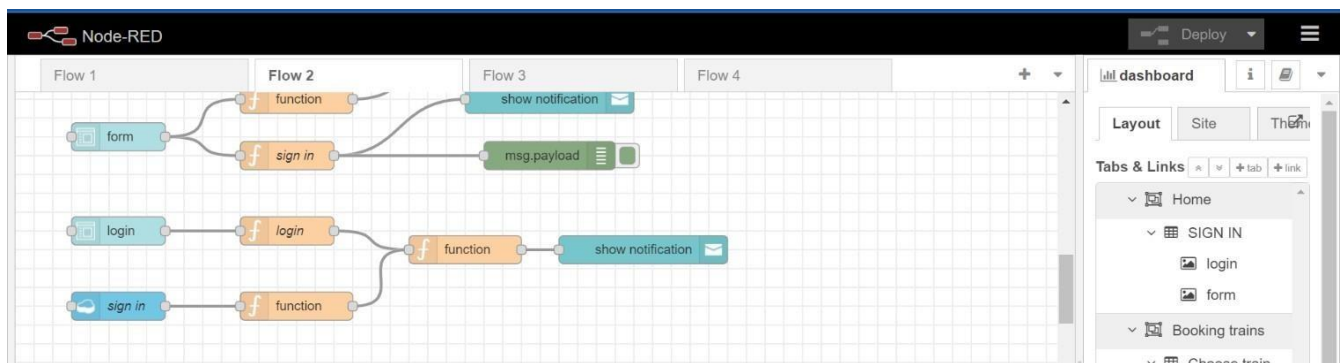
## SPRINT-1

<b>Date</b>	19 NOVEMBER 2022
<b>Team ID</b>	PNT2022TMID11042
<b>Project Name</b>	SMART SOLUTIONS FOR RAILWAYS

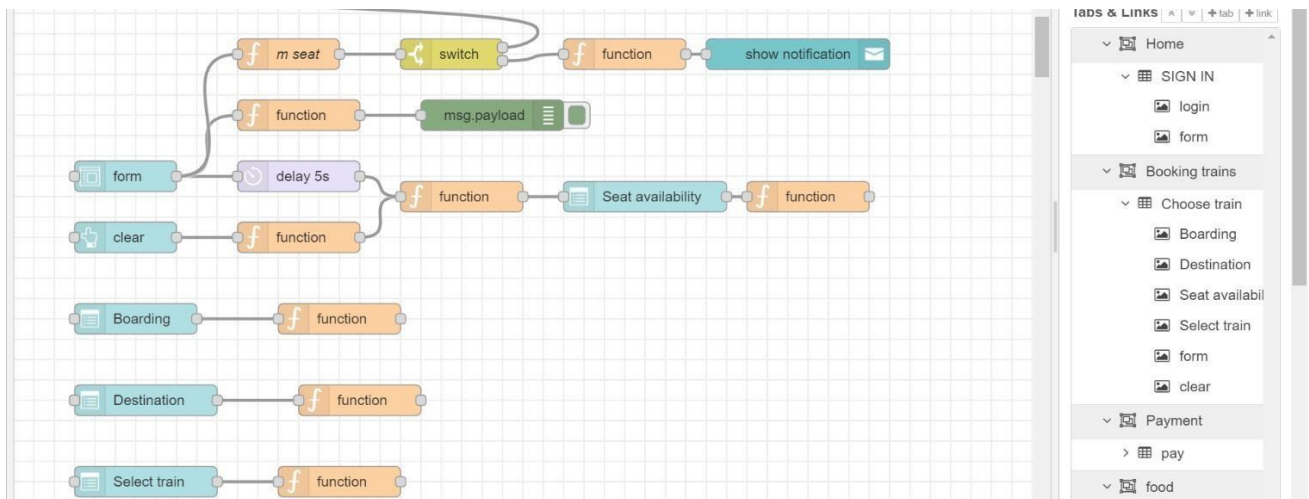
### PROCEDURE:

- 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.pus
h(a[i]) }
if(s.length==0){
    msg.options=[{"No seats available":0}]
}
else{ msg.optio
ns= 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' table lists three elements: 'Name' (Text type, required), 'Age' (Number type, required), and 'Mobile num' (Number type, required). Each element has a 'UiRows' field and a 'Remove' button. The 'Enabled' checkbox at the bottom is checked.

On the right, the 'debug' console shows a series of log messages. Each message is an object with 'name' and 'lat' properties, representing train data. The messages are as follows:

- 11/15/2022, 11:23:25 AM node: 833946aa7ef65319  
iot-2/type/Sudha/id/45/evt/status/fmt/json : msg.payload  
Object  
▶ { name: "Train1", lat: 13.08363, lon: 80.2708 }
- 11/15/2022, 11:23:27 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, 11:23:29 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, 11:23:35 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, 11:23:41 AM node: 833946aa7ef65319  
iot-2/type/Sudha/id/45/evt/status/fmt/json : msg.payload  
Object  
▶ { name: "Train1", lat: 11.63431, lon: 78.11122 }

## SEAT DROPDOWN BOX:

The screenshot shows the Node-RED web interface. On the left, a flow is visible with nodes like 'form', 'clear', and 'Boarding'. The main panel is titled 'Edit dropdown node'. It contains the following configuration options:

- Delete:** A button to delete the node.
- Cancel:** A button to cancel the edit.
- Done:** A red button to save the configuration.
- Properties:**
  - Group:** A dropdown menu with the value '[Booking trains] Choose train'.
  - Size:** A dropdown menu with the value 'auto'.
  - Label:** A text input field with the value 'Seat availability'.
  - Tooltip:** A text input field with the value 'optional tooltip'.
  - Placeholder:** A text input field with the value 'Select option'.
  - Options:** A list of four options, each consisting of a dropdown menu and a text input field:
    - Option 1: Dropdown menu with 'a\_z' and text input with '1'.
    - Option 2: Dropdown menu with 'a\_z' and text input with '2'.
    - Option 3: Dropdown menu with 'a\_z' and text input with '3'.
    - Option 4: Dropdown menu with 'a\_z' and text input with '4'.
- Enabled:** A radio button that is currently selected.

On the right side, the 'debug' console shows a series of log messages. Each message is an object with the following structure:

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

The log messages are timestamped and include a node ID and a message payload.

## 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