#### ECE-3502 IoT Domain Analyst LAB(L9+L10)

Name: Alpanshu Kataria

Reg. No.: 18BCE1267

Faculty: Maheshwari R

## Lab 5

### Task:

### Real-time environmental monitoring and weather prediction

Design a cloud based IoT Weather Analysis and Forecasting automation through FRED.

Retrieve the weather details from <a href="https://openweathermap.org">https://openweathermap.org</a>, perform analysis which helps the farmer for their agriculture and send an appropriate forecasting details.

#### Client Device:

Let the Farmer complete their registration in client machine (local Node-Red) through template node. Send mobile number of the farmer to the server.

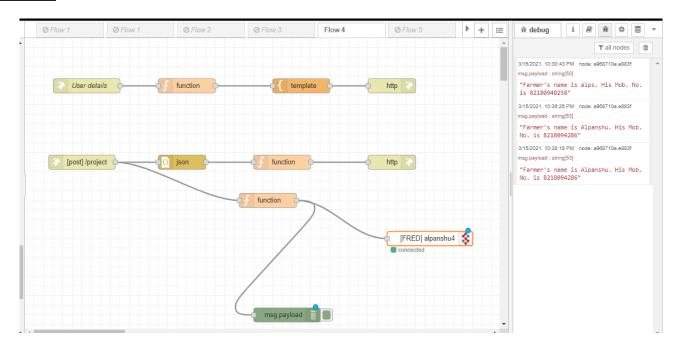
#### Server - FRED

Display all the weather details and produce a visual representation of all the parameters retrieved from the openweathermap site which may help the farmers to visualize the current state of weather and they may plan for their activities to increase the yield in production. Enable Audio output so that the farmers with poor eyesight could hear the details.

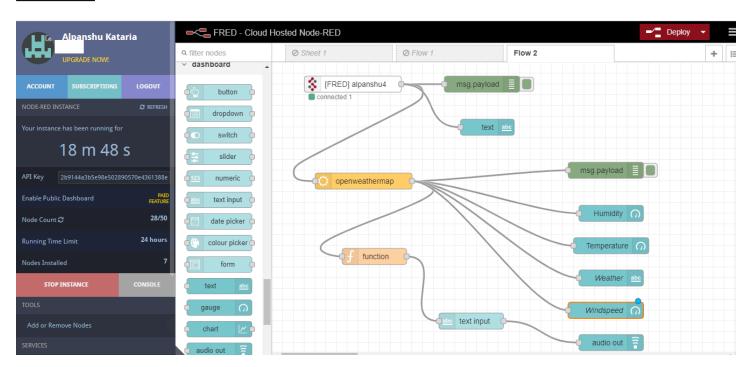
Using appropriate nodes frame the application and display the output in debug and UI.

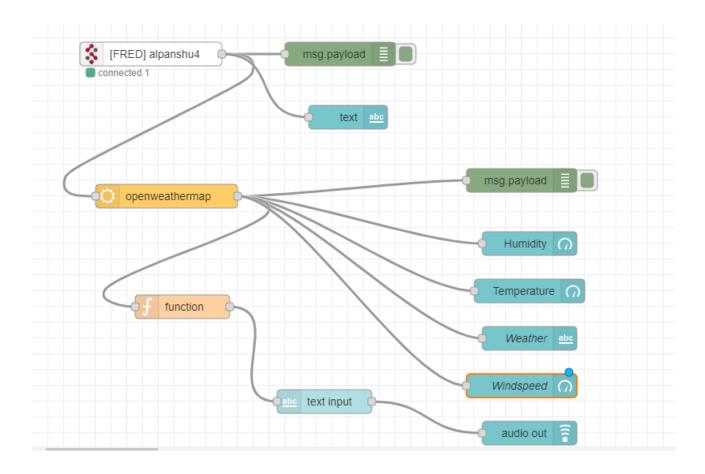
## Flow:

### **Client Side:**



### **Server Side:**

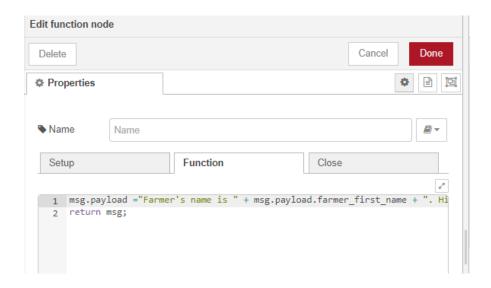




# Node:

### **Function to extract farmer's mobile no.:**

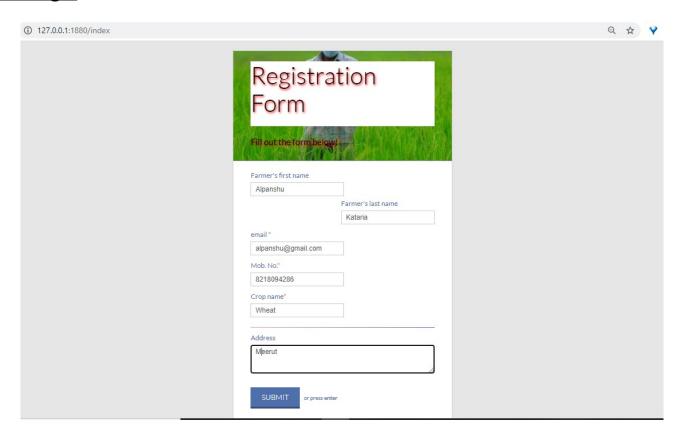
msg.payload ="Farmer's name is " + msg.payload.farmer\_first\_name + ". His Mob. No. is " +
msg.payload.Mob\_No;
return msg;



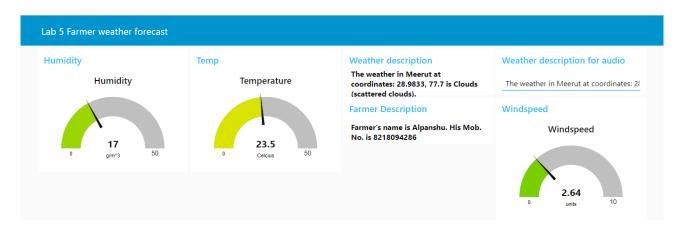
## **Debug monitor:**

```
∰ debug
                          亷
                         T all nodes
                                       ŵ
msg.payioad : string[53]
"Farmer's name is Alpanshu. His Mob.
No. is 8218094286"
3/15/2021, 10:38:19 PM node: 345ee6d0.b86b5a
msg.payload : Object
▼ object
  weather: "Clouds"
  detail: "scattered clouds"
  tempk: 296.67
  tempc: 23.5
  temp_maxc: 23.5
  temp_minc: 23.5
  humidity: 17
  maxtemp: 296.67
  mintemp: 296.67
  windspeed: 2.64
  winddirection: 283
  location: "Meerut"
  sunrise: 1615769949
  sunset: 1615813036
  clouds: 46
  description: "The weather in Meerut
  at coordinates: 28.9833, 77.7 is
  Clouds (scattered clouds)."
```

# Web Page:



## **Dashboard:**



## **HTML Code:**

```
<!DOCTYPE html>
<html lang="en" >
<head>
<meta charset="UTF-8">
<title>Registration Form</title>
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/normalize/5.0.0/normalize.min.css">
<style>
@import url(https://fonts.googleapis.com/css?family=Lato:300,400,700);
body {
background-color: #e6e6e6;
font-size: 100%;
font-family: 'Lato', sans-serif;
font-weight: 400;
}
div, textarea, input {
-moz-box-sizing: border-box;
-webkit-box-sizing: border-box;
box-sizing: border-box;
}
.container {
max-width: 510px;
min-width: 324px;
margin: 50px auto 0px;
background-color: #fff;
border: 1px solid #cfcfcf;
border-bottom: 3px solid #ccc;
}
.row {
width: 100%;
margin: 0 0 1em 0;
padding: 0 2.5em;
}
.row.header {
padding: 1.5em 2.5em;
border-bottom: 1px solid #ccc;
background: url('https://images.indianexpress.com/2020/05/farmers-759.jpg?w=600') left -80px;
color: #fff;
}
```

```
.row.body {
padding: .5em 2.5em 1em;
.pull-right {
float: right;
}
h1 {
font-family: 'Lato', sans-serif;
font-weight: 300;
display: inline-block;
font-weight: 100;
background-color: white;
color: black;
text-shadow: 2px 2px 5px red;
font-size: 3.5em;
border-bottom: 1px solid rgba(255, 255, 255, 0.3);
margin: 0 0 0.1em 0;
padding: 0 0 0.4em 0;
}
h3 {
font-family: 'Lato', sans-serif;
font-weight: 400;
font-size: 1.25em;
color: black:
text-shadow: 2px 2px 5px red;
margin: 1em 0 0.4em 0;
}
.btn {
font-size: 1.0625em;
display: inline-block;
padding: 0.74em 1.5em;
margin: 1.5em 0 0;
color: #fff;
border-width: 0 0 0 0;
border-bottom: 5px solid;
text-transform: uppercase;
background-color: #b3b3b3;
border-bottom-color: #8c8c8c;
font-family: 'Lato', sans-serif;
font-weight: 300;
}
.btn:hover {
```

```
background-color: #bfbfbf;
.btn.btn-submit {
background-color: #4f6fad;
border-bottom-color: #374d78;
}
.btn.btn-submit:hover {
background-color: #5f7db6;
}
form {
max-width: 100%;
display: block;
form ul {
margin: 0;
padding: 0;
list-style: none;
form ul li {
margin: 0 0 0.25em 0;
clear: both;
display: inline-block;
width: 100%;
}
form ul li:last-child {
margin: 0;
form ul li p {
margin: 0;
padding: 0;
float: left;
form ul li p.right {
float: right;
}
form ul li .divider {
margin: 0.5em 0 0.5em 0;
border: 0;
height: 1px;
width: 100%;
display: block;
background-color: #4f6fad;
```

```
background-image: linear-gradient(to right, #ee9cb4, #4f6fad);
form ul li .req {
color: #ee9cb4;
}
form label {
display: block;
margin: 0 0 0.5em 0;
color: #4f6fad;
font-size: 1em;
}
form input {
margin: 0 0 0.5em 0;
border: 1px solid #ccc;
padding: 6px 10px;
color: #555;
font-size: 1em;
form textarea {
border: 1px solid #ccc;
padding: 6px 10px;
width: 100%;
color: #555;
}
form small {
color: #4f6fad;
margin: 0 0 0 0.5em;
@media only screen and (max-width: 480px) {
.pull-right {
float: none;
input {
width: 100%;
}
label {
width: 100%;
display: inline-block;
float: left;
clear: both;
}
li, p {
```

```
width: 100%;
}
input.btn {
margin: 1.5em 0 0.5em;
}
h1 {
font-size: 2.25em;
h3 {
font-size: 1.125em;
}
li small {
display: none;
}
</style>
</head>
<body>
<!-- partial:index.partial.html -->
<div class="container">
<div class="row header">
<h1>Registration Form &nbsp;</h1>
<h3>Fill out the form below!</h3>
</div>
<div class="row body">
<form method="post" action="/project">
<label for="farmer first name">Farmer's first name</label>
<input type="text" name="farmer_first_name" placeholder="Alpanshu" />
<label for="farmer last name">Farmer's last name</label>
<input type="text" name="farmer last name" placeholder="Kataria" />
>
<label for="email">email <span class="req">*</span></label>
<input type="email" name="email" placeholder="alpanshu.kataria@gmail.com" />
```

```
>
<label for="Mob No">Mob. No.<span class="req">*</span></label>
<input type="Mob No" name="Mob No" placeholder="Mob. No." />
>
>
<label for="Crop name">Crop name<span class="req">*</span></label>
<input type="Crop_name" name="Crop_name" placeholder="Crop_name" />
<div class="divider"></div>
<label for="Address">Address</label>
<textarea cols="46" rows="3" name="Address"></textarea>
<input class="btn btn-submit" type="submit" value="Submit" />
    <small>or press <strong>enter</strong></small>
   </form>
</div>
</div>
<!-- partial -->
</body>
</html>
```

## Json Code for server side:

```
[
    "id": "25933a5b.3a6166",
    "type": "fred in",
    "z": "69e21e83.a54b5",
    "name": "",
    "server": "7776b2e1.dff46c",
```

```
"client": "",
  "x": 150,
  "y": 60,
  "wires": [
    [
       "4ae7531c.6316ac",
      "8bd0dce.5b6672",
      "f45e682b.72dc28"
    ]
  ]
},
{
  "id": "4ae7531c.6316ac",
  "type": "debug",
  "z": "69e21e83.a54b5",
  "name": "",
  "active": true,
  "tosidebar": true,
  "console": false,
  "tostatus": false,
  "complete": "false",
  "statusVal": "",
  "statusType": "auto",
  "x": 390,
  "y": 60,
  "wires": []
},
{
```

```
"id": "8bd0dce.5b6672",
  "type": "openweathermap",
  "z": "69e21e83.a54b5",
  "name": "",
  "wtype": "current",
  "lon": "",
  "lat": "",
  "city": "Meerut",
  "country": "India",
  "language": "en",
  "x": 170,
  "y": 240,
  "wires": [
    [
      "345ee6d0.b86b5a",
      "a881f773.172528",
      "3f6fdc8.eb33524",
      "a4bf0069.10599",
      "7fdd709f.833ba",
      "8af02bbe.4c8588"
    ]
  ]
},
  "id": "345ee6d0.b86b5a",
  "type": "debug",
  "z": "69e21e83.a54b5",
  "name": "",
```

```
"active": true,
  "tosidebar": true,
  "console": false,
  "tostatus": false,
  "complete": "false",
  "statusVal": "",
  "statusType": "auto",
  "x": 620,
  "y": 220,
  "wires": []
},
{
  "id": "a881f773.172528",
  "type": "ui_gauge",
  "z": "69e21e83.a54b5",
  "name": "",
  "group": "4383afd5.dce02",
  "order": 0,
  "width": 0,
  "height": 0,
  "gtype": "gage",
  "title": "Humidity",
  "label": "g/m^3",
  "format": "{{msg.payload.humidity}}",
  "min": 0,
  "max": "50",
  "colors": [
    "#00b500",
```

```
"#e6e600",
    "#ca3838"
  ],
  "seg1": "",
  "seg2": "",
  "x": 630,
  "y": 300,
  "wires": []
},
{
  "id": "e631a12d.2544",
  "type": "ui_audio",
  "z": "69e21e83.a54b5",
  "name": "",
  "group": "ebdef8d9.d5eb18",
  "voice": "Microsoft David Desktop - English (United States)",
  "always": "",
  "x": 630,
  "y": 540,
  "wires": []
},
{
  "id": "7fdd709f.833ba",
  "type": "function",
  "z": "69e21e83.a54b5",
  "name": "",
  "func": "msg.payload=msg.payload.description;\nreturn msg;",
  "outputs": 1,
```

```
"noerr": 0,
  "initialize": "",
  "finalize": "",
  "x": 190,
  "y": 380,
  "wires": [
    [
       "2aaca307.42422c"
    ]
  ]
},
{
  "id": "3f6fdc8.eb33524",
  "type": "ui_gauge",
  "z": "69e21e83.a54b5",
  "name": "",
  "group": "e83d5353.c76f8",
  "order": 1,
  "width": 0,
  "height": 0,
  "gtype": "gage",
  "title": "Temperature",
  "label": "Celcius",
  "format": "{{msg.payload.tempc}}",
  "min": 0,
  "max": "50",
  "colors": [
    "#00b500",
```

```
"#e6e600",
    "#ca3838"
  ],
  "seg1": "",
  "seg2": "",
  "x": 630,
  "y": 360,
  "wires": []
},
  "id": "a4bf0069.10599",
  "type": "ui_text",
  "z": "69e21e83.a54b5",
  "group": "2c23e1af.b0e4fe",
  "order": 1,
  "width": 0,
  "height": 0,
  "name": "Weather",
  "label": "",
  "format": "{{msg.payload.description}}",
  "layout": "row-spread",
  "x": 630,
  "y": 420,
  "wires": []
},
{
  "id": "2aaca307.42422c",
  "type": "ui_text_input",
```

```
"z": "69e21e83.a54b5",
  "name": "",
  "label": "",
  "tooltip": "",
  "group": "5937532b.bc790c",
  "order": 1,
  "width": 0,
  "height": 0,
  "passthru": true,
  "mode": "text",
  "delay": 300,
  "topic": "topic",
  "x": 370,
  "y": 500,
  "wires": [
    [
      "e631a12d.2544"
    ]
  ]
},
  "id": "8af02bbe.4c8588",
  "type": "ui_gauge",
  "z": "69e21e83.a54b5",
  "name": "Windspeed",
  "group": "191bb3b7.81435c",
  "order": 1,
  "width": 0,
```

{

```
"height": 0,
  "gtype": "gage",
  "title": "Windspeed",
  "label": "m/sec",
  "format": "{{msg.payload.windspeed}}",
  "min": 0,
  "max": 10,
  "colors": [
    "#00b500",
    "#e6e600",
    "#ca3838"
  ],
  "seg1": "",
  "seg2": "",
  "x": 620,
  "y": 480,
  "wires": []
},
  "id": "f45e682b.72dc28",
  "type": "ui_text",
  "z": "69e21e83.a54b5",
  "group": "c6963855.5a1dd8",
  "order": 0,
  "width": 0,
  "height": 0,
  "name": "",
  "label": "",
```

{

```
"format": "{{msg.payload}}",
  "layout": "row-spread",
  "x": 400,
  "y": 140,
  "wires": []
},
{
  "id": "7776b2e1.dff46c",
  "type": "fred-server",
  "endpoint": "alpanshu4",
  "private": false,
  "wholemsg": "true"
},
  "id": "4383afd5.dce02",
  "type": "ui_group",
  "name": "Humidity",
  "tab": "7188d184.8a82f",
  "order": 2,
  "disp": true,
  "width": "6",
  "collapse": false
},
  "id": "ebdef8d9.d5eb18",
  "type": "ui_group",
  "name": "Audio",
  "tab": "7188d184.8a82f",
```

```
"order": 3,
  "disp": true,
  "width": "6",
  "collapse": false
},
{
  "id": "e83d5353.c76f8",
  "type": "ui_group",
  "name": "Temp",
  "tab": "7188d184.8a82f",
  "order": 4,
  "disp": true,
  "width": "6",
  "collapse": false
},
{
  "id": "2c23e1af.b0e4fe",
  "type": "ui_group",
  "name": "Weather description",
  "tab": "7188d184.8a82f",
  "order": 5,
  "disp": true,
  "width": "6",
  "collapse": false
},
{
  "id": "5937532b.bc790c",
  "type": "ui_group",
```

```
"name": "Weather description for audio",
  "tab": "7188d184.8a82f",
  "order": 7,
  "disp": true,
  "width": "6",
  "collapse": false
},
{
  "id": "191bb3b7.81435c",
  "type": "ui_group",
  "name": "Windspeed",
  "tab": "7188d184.8a82f",
  "order": 8,
  "disp": true,
  "width": "6",
  "collapse": false
},
{
  "id": "c6963855.5a1dd8",
  "type": "ui_group",
  "name": "Farmer Description",
  "tab": "7188d184.8a82f",
  "order": 7,
  "disp": true,
  "width": "6",
  "collapse": false
},
{
```

```
"id": "7188d184.8a82f",

"type": "ui_tab",

"name": "Lab 5 Farmer weather forecast",

"icon": "dashboard",

"order": 3,

"disabled": false,

"hidden": false
}
```

## Json code for c, lient side:

```
[
    "id": "6c8e347a.7d492c",
    "type": "http in",
    "z": "492e57b6.69bf38",
    "name": "User details",
    "url": "/index",
    "method": "get",
    "upload": false,
    "swaggerDoc": "",
    "x": 130,
    "y": 100,
    "wires": [
      [
         "c6c45c02.04281"
```

```
]
  ]
},
{
  "id": "aaaf7d78.be4a1",
  "type": "http response",
  "z": "492e57b6.69bf38",
  "name": "",
  "statusCode": "",
  "headers": {},
  "x": 770,
  "y": 100,
  "wires": []
},
  "id": "c6c45c02.04281",
  "type": "function",
  "z": "492e57b6.69bf38",
  "name": "",
  "func": "msg.url=\"index\";\nreturn msg;",
  "outputs": 1,
  "noerr": 0,
  "initialize": "",
  "finalize": "",
  "x": 340,
```

```
"v": 100,
  "wires": [
    [
       "da1f896d.0f1c98"
    1
  ]
},
{
  "id": "da1f896d.0f1c98",
  "type": "template",
  "z": "492e57b6.69bf38",
  "name": "",
  "field": "payload",
  "fieldType": "msg",
  "format": "html",
  "syntax": "mustache",
```

"template": "<!DOCTYPE html>\n<html lang=\"en\" >\n<head>\n<meta charset=\"UTF-8\">\ n<title>Registration Form</title>\n<meta name=\"viewport\" content=\"width=device-width, initial-scale=1.0\">\nlink rel=\"stylesheet\"

href=\"https://cdnjs.cloudflare.com/ajax/libs/normalize/5.0.0/normalize.min.css\">\n<style>\
n@import url(https://fonts.googleapis.com/css?family=Lato:300,400,700);\n body {\nbackground-color: #e6e6e6;\nfont-size: 100%;\nfont-family: 'Lato', sans-serif;\nfont-weight: 400;\n}\ndiv,
textarea, input {\n-moz-box-sizing: border-box;\n-webkit-box-sizing: border-box;\nbox-sizing: border-box;\n}\n.container {\nmax-width: 510px;\nmin-width: 324px;\nmargin: 50px auto 0px;\nbackground-color: #fff;\nborder: 1px solid #cfcfcf;\nborder-bottom: 3px solid #ccc;\n}\n.row {\nwidth: 100%;\nmargin: 0 0 1em 0;\npadding: 0 2.5em;\n}\n.row.header {\npadding: 1.5em 2.5em;\nborder-bottom: 1px solid #ccc;\nbackground:

 $url('https://images.indianexpress.com/2020/05/farmers-759.jpg?w=600') left -80px; \\ n.row.body {\npadding: .5em 2.5em 1em; \\ n.pull-right {\nfloat: right; \\ n}\nh1 {\nfont-family: 'Lato', sans-serif; \\ nfont-weight: 300; \\ ndisplay: inline-block; \\ nfont-weight: 100; \\ n background-color: white; \\ \norm{} \\ \nor$ 

ncolor: black;\ntext-shadow: 2px 2px 5px red;\nfont-size: 3.5em;\nborder-bottom: 1px solid rgba(255, 255, 255, 0.3);\nmargin: 0 0 0.1em 0;\npadding: 0 0 0.4em 0;\n}\nh3 {\nfont-family: 'Lato', sans-serif;\nfont-weight: 400;\nfont-size: 1.25em;\ncolor: black;\ntext-shadow: 2px 2px 5px red;\ nmargin: 1em 0 0.4em 0;\n}\n.btn {\nfont-size: 1.0625em;\ndisplay: inline-block;\npadding: 0.74em 1.5em;\nmargin: 1.5em 0 0;\ncolor: #fff;\nborder-width: 0 0 0 0;\nborder-bottom: 5px solid;\ntexttransform: uppercase;\nbackground-color: #b3b3b3;\nborder-bottom-color: #8c8c8c;\nfont-family: 'Lato', sans-serif;\nfont-weight: 300;\n}\n.btn:hover {\nbackground-color: #bfbfbf;\n}\n.btn.btnsubmit {\nbackground-color: #4f6fad;\nborder-bottom-color: #374d78;\n}\n.btn.btn-submit:hover {\ nbackground-color: #5f7db6;\n}\nform {\nmax-width: 100%;\n display: block;\n}\nform ul {\nmargin: 0;\npadding: 0;\nlist-style: none;\n}\nform ul li {\nmargin: 0 0 0.25em 0;\nclear: both;\ndisplay: inline-block;\nwidth: 100%;\n}\nform ul li:last-child {\nmargin: 0;\n}\nform ul li p {\nmargin: 0;\ npadding: 0;\nfloat: left;\n}\nform ul li p.right {\nfloat: right;\n}\nform ul li .divider {\nmargin: 0.5em 0 0.5em 0;\nborder: 0;\nheight: 1px;\nwidth: 100%;\ndisplay: block;\nbackground-color: #4f6fad;\ nbackground-image: linear-gradient(to right, #ee9cb4, #4f6fad);\n}\nform ul li .req {\ncolor: #ee9cb4;\n}\nform label {\ndisplay: block;\nmargin: 0 0 0.5em 0;\ncolor: #4f6fad;\nfont-size: 1em;\ n\\n form input {\nmargin: 0 0 0.5em 0;\nborder: 1px solid #ccc;\npadding: 6px 10px;\ncolor: #555;\ nfont-size: 1em;\n}\nform textarea {\nborder: 1px solid #ccc;\npadding: 6px 10px;\nwidth: 100%;\ ncolor: #555;\n}\nform small {\ncolor: #4f6fad;\nmargin: 0 0 0 0.5em;\n}\n@media only screen and (max-width: 480px) {\n.pull-right {\nfloat: none;\n}\ninput {\nwidth: 100%;\n}\nlabel {\nwidth: 100%;\ndisplay: inline-block;\nfloat: left;\nclear: both;\n}\nli, p {\nwidth: 100%;\n}\ninput.btn {\ nmargin: 1.5em 0 0.5em;\n}\nh1 {\nfont-size: 2.25em;\n}\nh3 {\nfont-size: 1.125em;\n }\nli small {\ ndisplay: none;\n}\n</style>\n</head>\n<body>\n<!-- partial:index.partial.html -->\n<div class=\"container\">\n<div class=\"row header\">\n<h1>Registration Form &nbsp;</h1>\n<h3>Fill out the form below!</h3>\n</div>\n<div class=\"row body\">\n<form method=\"post\" action=\"/project\">\n\n\n\n<label for=\"farmer first name\">Farmer's first name</label>\n<input type=\"text\" name=\"farmer\_first\_name\" placeholder=\"Alpanshu\" />\ n\n\n<label for=\"farmer last name\">Farmer's last name</label>\ n<input type=\"text\" name=\"farmer last name\" placeholder=\"Kataria\" />\n\n n\n<label for=\"email\">email\">email\"pemail\">email\" name=\"email\" placeholder=\"alpanshu.kataria@gmail.com\" />\n\n\n\n<label for=\"Mob No\">Mob. No.<span class=\"req\">\*</span></label>\n<input type=\"Mob No\"  $name = \''Mob\ No.'' /> \'n \'n \'n \'n \'n \'n \'n \'n$ for=\"Crop name\">Crop name<span class=\"req\">\*</span></label>\n<input type=\"Crop name\" name=\"Crop name\" placeholder=\"Crop name\" />\n\n class=\"divider\"></div>\n\n<label for=\"Address\">Address</label>\n<textarea cols=\"46\" rows=\"3\" name=\"Address\"></textarea>\n\n \n <input class=\"btn btn-submit\" type=\"submit\" value=\"Submit\" />\n <small>or press <strong>enter</strong></small>\n  $n\n</form>\n</div>\n<!-- partial -->\n</body>\n</thml>",$ 

```
"x": 580,
  "y": 100,
  "wires": [
    [
      "aaaf7d78.be4a1"
    ]
  ]
},
  "id": "cd86cfa2.eca25",
  "type": "http in",
  "z": "492e57b6.69bf38",
  "name": "",
  "url": "/project",
  "method": "post",
  "upload": false,
  "swaggerDoc": "",
  "x": 120,
  "y": 260,
  "wires": [
    [
      "2894836e.939d4c",
      "7f5f2607.a0a468"
    ]
  ]
```

```
},
{
  "id": "53e1226.49800dc",
  "type": "function",
  "z": "492e57b6.69bf38",
  "name": "",
  "func": "return msg;",
  "outputs": 1,
  "noerr": 0,
  "initialize": "",
  "finalize": "",
  "x": 540,
  "y": 260,
  "wires": [
    [
      "9b74c6a7.fd8a28"
    ]
  ]
},
  "id": "9b74c6a7.fd8a28",
  "type": "http response",
  "z": "492e57b6.69bf38",
  "name": "",
  "statusCode": "",
```

```
"headers": {},
  "x": 770,
  "y": 260,
  "wires": []
},
  "id": "2894836e.939d4c",
  "type": "json",
  "z": "492e57b6.69bf38",
  "name": "",
  "property": "payload",
  "action": "",
  "pretty": false,
  "x": 330,
  "y": 260,
  "wires": [
    [
      "53e1226.49800dc"
    ]
  ]
},
{
  "id": "a968710e.e883f",
  "type": "debug",
  "z": "492e57b6.69bf38",
```

```
"name": "",
    "active": true,
    "tosidebar": true,
    "console": false,
    "tostatus": false,
    "complete": "false",
    "statusVal": "",
    "statusType": "auto",
    "x": 550,
    "y": 580,
    "wires": []
  },
  {
    "id": "7f5f2607.a0a468",
    "type": "function",
    "z": "492e57b6.69bf38",
    "name": "",
    "func": "msg.payload =\"Farmer's name is \" + msg.payload.farmer_first_name + \". His Mob. No.
is \" + msg.payload.Mob_No;\nreturn msg;",
    "outputs": 1,
    "noerr": 0,
    "initialize": "",
    "finalize": "",
    "x": 510,
    "y": 340,
    "wires": [
```

```
[
      "a968710e.e883f",
      "8328dc69.be328"
    ]
  ]
},
{
  "id": "8328dc69.be328",
  "type": "fred out",
  "z": "492e57b6.69bf38",
  "name": "",
  "server": "",
  "client": "ba178cc8.608cf",
  "x": 850,
  "y": 420,
  "wires": []
},
  "id": "ba178cc8.608cf",
  "type": "fred-client",
  "endpoint": "alpanshu4",
  "private": false,
  "username": "alps",
  "wholemsg": "false"
}
```