

SPRINT – 2 PROJECT DOCUMENT

Team ID	PNT2022TMID53187
Project Name	Flight Delay Prediction Using Machine Learning

DEVELOPMENT PHASE:

SPRINT-2:

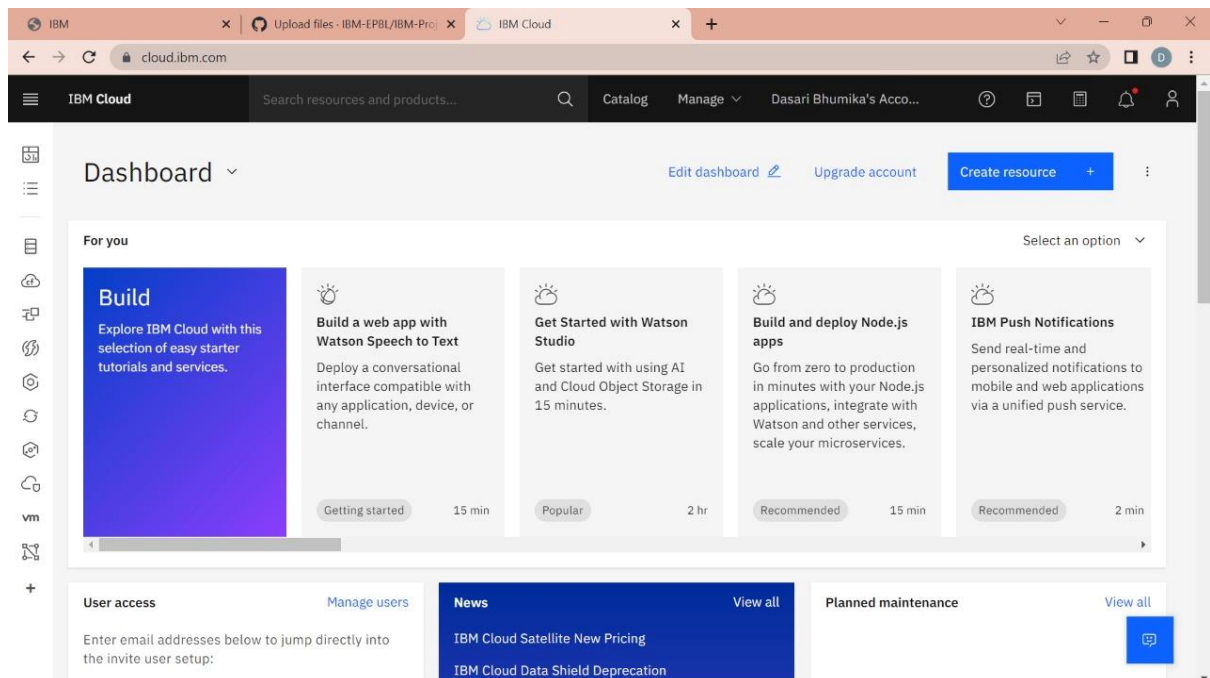
- Creating IBM cloud account & Required Resources
- Deploy our model in IBM Watson
- Creating Dashboard using HTML/CSS
- Create web app and Hosting in falsk
- Testing web app

Creating IBM cloud account & Required Resources:

Creating IBM cloud account:

Frist, need to create IBM Cloud account by using SI Mail Id and SI Password which is provided by IBM in profile.

Below dashboard of an account after created,



All the resource are in active state.

All the required cloud resources are created successfully.

Creating Dashboard using HTML/CSS:

Frontend Dashboard is created using

HTML/CSS

Source code:

Main.html :

```
<!DOCTYPE html>
<html >
<head>
  <meta charset="UTF-8">
  <title>ML API</title>
  <link href='https://fonts.googleapis.com/css?family=Pacifico'
rel='stylesheet' type='text/css'>
  <link href='https://fonts.googleapis.com/css?family=Arimo' rel='stylesheet'
type='text/css'>
  <link href='https://fonts.googleapis.com/css?family=Hind:300' rel='stylesheet'
type='text/css'>
  <link href='https://fonts.googleapis.com/css?family=Open+Sans+Condensed:300'
rel='stylesheet' type='text/css'>
  <link rel="stylesheet" href="static/cssstyle.css">

</head>

<body>
  <div class="container">
    <h1 class="h1" >Flight Delay Prediction</h1>
    <div class="login">

      <!-- Main Input For Receiving Query to our ML -->
      <form action="{{ url_for('predict')}}" method="post">
        Quarter of the year <input type="text" name="quater" placeholder="3"
required="required" min='1' max='4' />
        Month in number<input type="text" name="month" placeholder="12"
required="required" min='1' max='12' />
        Day of the Month<input type="text" name="daym" placeholder="28"
required="required" min='1' max='31' />
        Day of the week<input type="text" name="dayw" placeholder="7"
required="required" min='1' max='7' />
        Flight Number<input type="text" name="fnum" placeholder="2823"
required="required" max="9999" />

        Origin Airport: <select name="airport" class="origin">
          <option value='1'>ATL</option>
```

```

        <option value='2'>DWT</option>
        <option value='3'>JFK</option>
        <option value='4'>MSP</option>
        <option value='5'>SEA</option>
    </select><br><br>
    Destination Airport: <select name="airportd" class="dest">
        <option value='1'>ATL</option>
        <option value='2'>DWT</option>
        <option value='3'>JFK</option>
        <option value='4'>MSP</option>
        <option value='5'>SEA</option>
    </select><br><br>
    Planned Departure Time(format hhmm)<input type="text" name="dtime"
placeholder="1647" required="required" max="9999"/>
    Planned Arrival Time(format hhmm)<input type="text" name="atime"
placeholder="1020" required="required" max="9999"/>
    Estimated Traveling Time(in minutes)<input type="text" name="ttime"
placeholder="240" required="required" max="9999"/>
    Distance(in Kms)<input type="text" name="text" placeholder="1500"
required="required"min='140' max="99999"/>
        <button type="submit" class="button-27">Predict</button>
    </form>

<br>

</div>

</div>
</body>
</html>

```

CssStyle.css :

```

@import url('https://fonts.googleapis.com/css2?family=Kalam&display=swap');
@import url(https://fonts.googleapis.com/css?family=Open+Sans);
@import
url('https://fonts.googleapis.com/css2?family=Chakra+Petch:wght@300&display=sw
ap');
.btn { display: inline-block; *display: inline; *zoom: 1; padding: 4px 10px
4px; margin-bottom: 0; font-size: 13px; line-height: 18px; color: #333333;
text-align: center;text-shadow: 0 1px 1px rgba(255, 255, 255, 0.75); vertical-
align: middle; background-color: #f5f5f5; background-image: -moz-linear-
gradient(top, #ffffff, #e6e6e6); background-image: -ms-linear-gradient(top,
#ffffff, #e6e6e6); background-image: -webkit-gradient(linear, 0 0, 0 100%,

```

```

from(#ffffff), to(#e6e6e6)); background-image: -webkit-linear-gradient(top,
#ffffff, #e6e6e6); background-image: -o-linear-gradient(top, #ffffff,
#e6e6e6); background-image: linear-gradient(top, #ffffff, #e6e6e6);
background-repeat: repeat-x; filter:
progid:dximagetransform.microsoft.gradient(startColorstr=#ffffff,
endColorstr=#e6e6e6, GradientType=0); border-color: #e6e6e6 #e6e6e6 #e6e6e6;
border-color: rgba(0, 0, 0, 0.1) rgba(0, 0, 0, 0.1) rgba(0, 0, 0, 0.25);
border: 1px solid #e6e6e6; -webkit-border-radius: 4px; -moz-border-radius:
4px; border-radius: 4px; -webkit-box-shadow: inset 0 1px 0 rgba(255, 255, 255,
0.2), 0 1px 2px rgba(0, 0, 0, 0.05); -moz-box-shadow: inset 0 1px 0 rgba(255,
255, 255, 0.2), 0 1px 2px rgba(0, 0, 0, 0.05); box-shadow: inset 0 1px 0
rgba(255, 255, 255, 0.2), 0 1px 2px rgba(0, 0, 0, 0.05); cursor: pointer;
*margin-left: .3em; }
.btn:hover, .btn:active, .btn.active, .btn.disabled, .btn[disabled] {
background-color: #e6e6e6; }
.btn-large { padding: 9px 14px; font-size: 15px; line-height: normal; -webkit-
border-radius: 5px; -moz-border-radius: 5px; border-radius: 5px; }
.btn:hover { color: #333333; text-decoration: none; background-color: #e6e6e6;
background-position: 0 -15px; -webkit-transition: background-position 0.1s
linear; -moz-transition: background-position 0.1s linear; -ms-transition:
background-position 0.1s linear; -o-transition: background-position 0.1s
linear; transition: background-position 0.1s linear; }
.btn-primary, .btn-primary:hover { text-shadow: 0 -1px 0 rgba(0, 0, 0, 0.25);
color: #ffffff; }
.btn-primary.active { color: rgba(255, 255, 255, 0.75); }
.btn-primary { background-color: #4a77d4; background-image: -moz-linear-
gradient(top, #6eb6de, #4a77d4); background-image: -ms-linear-gradient(top,
#6eb6de, #4a77d4); background-image: -webkit-gradient(linear, 0 0, 0 100%,
from(#6eb6de), to(#4a77d4)); background-image: -webkit-linear-gradient(top,
#6eb6de, #4a77d4); background-image: -o-linear-gradient(top, #6eb6de,
#4a77d4); background-image: linear-gradient(top, #6eb6de, #4a77d4);
background-repeat: repeat-x; filter:
progid:dximagetransform.microsoft.gradient(startColorstr=#6eb6de,
endColorstr=#4a77d4, GradientType=0); border: 1px solid #3762bc; text-shadow:
1px 1px 1px rgba(0,0,0,0.4); box-shadow: inset 0 1px 0 rgba(255, 255, 255,
0.2), 0 1px 2px rgba(0, 0, 0, 0.5); }
.btn-primary:hover, .btn-primary:active, .btn-primary.active, .btn-
primary.disabled, .btn-primary[disabled] { filter: none; background-color:
#4a77d4; }
.btn-block { width: 100%; display: block; }

* { -webkit-box-sizing: border-box; -moz-box-sizing: border-box; -ms-box-
sizing: border-box; -o-box-sizing: border-box; box-sizing: border-box; }

html { width: 100%; height: 150%; }

body {
width: 100%;

```

```

height:100%;
font-family: 'Chakra Petch', sans-serif;

background:white;
color: white;
font-size: 16px;
text-align:center-left;
letter-spacing:1.2px;
filter: progid:DXImageTransform.Microsoft.gradient(
startColorstr='#3E1D6D', endColorstr='#092756',GradientType=1 );
background: rgb(2,0,36);
background: linear-gradient(90deg, rgba(2,0,36,1) 0%, rgba(0,142,133,1) 35%,
rgba(0,212,255,1) 100%);
color: black;
}
.container {
height: 970px ;
border-radius: 20px;
margin: 4%;
margin-left: 480px;
margin-right: 400px;
background-color: white;
color: black;
}
.login {
position: absolute;
top: 40%;
left: 50%;
margin: -100px 0 0 -150px;
width:400px;
height:400px;
}

/* CSS */
.button-27 {

appearance: none;
background-color: #000000;
border: 2px solid #1A1A1A;
border-radius: 12px;
box-sizing: border-box;
color: #FFFFFF;
cursor: pointer;
display: inline-block;
font-family: Roobert,-apple-system,BlinkMacSystemFont,"Segoe
UI",Helvetica,Arial,sans-serif,"Apple Color Emoji","Segoe UI Emoji","Segoe UI
Symbol";

```

```

font-size: 16px;
font-weight: 600;
line-height: normal;
margin: 0;
min-height: 60px;
min-width: 0;
outline: none;
padding: 16px 24px;
text-align: center;
text-decoration: none;
transition: all 300ms cubic-bezier(.23, 1, 0.32, 1);
user-select: none;
-webkit-user-select: none;
touch-action: manipulation;
width: 40%;
will-change: transform;
margin-top: 30px;
margin-left: 120px;
}

.button-27:disabled {
  pointer-events: none;
}

.button-27:hover {
  box-shadow: rgba(0, 0, 0, 0.25) 0 8px 15px;
  transform: translateY(-2px);
}

.button-27:active {
  box-shadow: none;
  transform: translateY(0);
}

.h1 {font-size: 38px;color: black;font-family: 'Kalam', cursive; text-shadow:
0 0 10px rgba(0,0,0,0.3); letter-spacing:1px; text-align:center;margin-bottom:
20px;}
body .origin{padding-bottom:10px}
body .dest{padding-bottom:10px}
body .btn{padding:20px}
input {
  width: 100%;
  margin-bottom: 15px;
  margin-top: 10px;
  background: rgb(255, 255, 255);
  border: none;
  outline: none;
  padding: 10px;
  font-size: 13px;

```

```

color: black;
text-shadow: 1px 1px 1px rgba(0,0,0,0.3);
border: 1px solid rgba(0,0,0,0.3);
border-radius: 4px;
box-shadow: inset 0 -5px 45px rgba(100,100,100,0.2), 0 1px 1px
rgba(255,255,255,0.2);
-webkit-transition: box-shadow .5s ease;
-moz-transition: box-shadow .5s ease;
-o-transition: box-shadow .5s ease;
-ms-transition: box-shadow .5s ease;
transition: box-shadow .5s ease;
}
input:focus { box-shadow: inset 0 -5px 45px rgba(100,100,100,0.4), 0 1px 1px
rgba(255,255,255,0.2); }

```

The result is as follows,

Flight Delay Prediction

Quarter of the year
3

Month in number
12

Day of the Month
28

Day of the week
7

Flight Number
2823

Origin Airport: ATL ▼

Destination Airport: ATL ▼

Flight Number

2823

Origin Airport: ATL ▾

Destination Airport: ATL ▾

Planned Departure Time(format hhmm)

1647

Planned Arrival Time(format hhmm)

1020

Estimated Traveling Time(in minutes)

240

Distance(in Kms)

1500

Predict

The website is created with the required HTML and CSS.