

## PROJECT DEVELOPMENT PHASE

### Sprint 2

Date	18-Nov-22
Team ID	PNTIBM2022TMID52214
Project Name	Developing a Flight Delay Prediction Model Using Machine Learning
Maximum Marks	8 marks

**Source Code:**

**Home Page:**

```
<!DOCTYPE html>
```

```
<html lang="en">
```

```
<head>
```

```
  <meta charset="UTF-8">
```

```
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
```

```
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
```

```
  <link rel="stylesheet" href="static/css/mystyles.css">
```

```
<title>Flight Delay Prediction</title>
</head>

<body>
  <div class="main-container">
    <!-- Header section starts -->
    <div class="header_header">
      <div class="logo_header">
        
      </div>
      <div class="menu-container">
        <div class="dropdown">
          <button class="dropbtn"><a href="/">Home</a></button>
        </div>
        <div class="dropdown">
          <button class="dropbtn">What We Do </button>
          <div class="dropdown-content">
            <a href="/modeling">Modeling and Simulation</a>
          </div>
        </div>
        <div class="dropdown">
          <button class="dropbtn">Work With Us</button>
          <div class="dropdown-content">
            <a href="/login_validation">Prediction Value For Flight Delay</a>
            <a href="/Predict">predicted The Flight Details</a>
          </div>
        </div>
      </div>
    </div>
  </div>

```

```

        <button class="dropbtn">Contact Us</button>

        <div class="dropdown-content">

            <!-- <a href="/contact">Contact Us</a> -->

            <a href="/register">Sign UP</a>

            <a href="/login">Sign IN</a>

        </div>

    </div>

</div>

</div>

</div>

<!-- Header section ends -->

<!-- Banner section starts -->

<div class="banner-container">

    <div class="slideshow-container1">

        <div class="mySlides1 fade1">

            

        </div>

    </div>

    <!-- <div style="text-align:center">

        <span class="dot" onclick="currentSlide(1)"></span>

        <span class="dot" onclick="currentSlide(2)"></span>

    </div> -->

</div>

<!-- Banner section ends -->

<!-- Banner desc starts -->

<div class="banner-desc">

    <div class="banner-content">

        <h1>

            Flight Delay Prediction

```

</h1>

<div class="flight-desc">

<p>FDP industry-leading, unique solution which applies data analytics on  
historical flight operations, weather forecasts  
combined with real time operational data to produce  
accurate flight-specific delay predictions

</p>

</div>

<div class="flight-desc1">

<ul>

<li><strong>Weather</strong>-related factors account for almost <strong>half of  
all flight delays</strong></li>

<li>Combining powerful airspace system analytics, weather forecasts, historical  
weather impact analysis, we

believe that some passenger delays can be predicted and proactively  
mitigated</li>

<li>The service will enable travel companies better insights planning for next day  
operation, with insights into

anticipated delays</li>

<li>Result is an accurate, flight-by-flight and itinerary delay and ETA  
prediction</li>

</ul>

</div>

</div>

<div class="dataset-analysis-img">



</div>

</div>

<!-- Banner desc ends -->

```
<!-- Analysis banner starts -->
<div class="analysis-banners">
  <div class="analysis-header">
    <h1>Flight Delay Graphy</h1>
  </div>
  <div class="analysis-container1">
    <span>
      
    </span>
    <span>
      
    </span>
    <span>
      
    </span>
  </div>
  <div class="analysis-container1">
    <span>
      
    </span>
    <span>
      
    </span>
    <span>
      
    </span>
  </div>
</div>
```

```
<!-- Analysis banner ends -->

<!-- footer section starts -->

<footer>

  <div class="footer-content">

    <div class="footer-media">

      <a href="https://www.facebook.com/">  </a>

      <a href="https://www.instagram.com/">  </a>

      <a href="https://twitter.com/">  </a>

    </div>

    <div class="footer-about">

      <div class="about-member">

        <b>Posted by: Saranya Muthu</b>

      </div>

      <div class="about-member">

        <b>Contact Information: Saranyamuthu29@gmail.com</b>

      </div>

      <div class="about-member">

        <b>Contact Information: Saranyamuthu29@gmail.com</b>

      </div>

    </div>

  </div>

</footer>

<div class="copyright-area">

  <span class="footer-copyright">

    ©Delay Flight Prediction.All rights reserved. done by saranya

  </span>
```

```
</div>

<!-- footer section ends -->

</div>

</body>

</html>
```

## Sign In:

```
<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="utf-8">

<meta http-equiv="X-UA-Compatible" content="IE=edge">

<meta name="viewport" content="width=device-width, initial-scale=1">

<!-- The above 3 meta tags *must* come first in the head; any other head content
must
come *after* these tags -->

<title>Find Me</title>

<link href="https://fonts.googleapis.com/css?family=Lato:400,700"
rel="stylesheet">

<link type="text/css" rel="stylesheet" href="{ { url_for('static',
filename='css/bootstrap.min.css') } }" />

<link type="text/css" rel="stylesheet" href="{ { url_for('static',
filename='css/style.css') } }"

/>
```

```
<style>
#booking
{
font-family: 'Lato', sans-serif;
background: url(.....\static\background.png);
background-size: cover;
background-position: center;
color: #191a1e;
background-color: #f44336;
}
</style>
</head>
<body>
<div id="booking" class="section">
<div class="section-center">
<div class="container">
<div class="row">
<div class="col-md-4">
<div class="booking-cta">
<h1>Sign In</h1>
<p style="color:#fff">Let You Create An Account With Us.</p>
<div class="container">
<!-- {{ prediction_text }} -->
{% if prediction_text == "0" %}
<h2 style="color:#fff"> "Account Successfully Created" </h2>
```



```
{% elif prediction_text == "1" %}  
<h2 style="color:#fff">" Incorrect Email Id Or Password "</h2>  
{% endif %}  
</div>  
</div>  
</div>  
<div class="col-md-6 col-md-offset-1">  
<div class="booking-form">  
<form class="form" method="post" action="/login_validation">  
<div class="row">  
<div class="col-md-12">  
<div class="form-group">  
<span class="form-label">Email</span>  
<input type="email" class="form-control" name="email"  
placeholder="Enter Your Email" required="true">  
<span class="select-arrow"></span>  
</div>  
</div>  
</div>  
<div class="row">  
<div class="col-md-12">  
<div class="form-group">  
<span class="form-label">Password</span>  
<input type="password" class="form-control" name="password"  
placeholder="Enter Your Password" required="true">
```

```
<span class="select-arrow"></span>
</div>
</div>
</div>
<div class="form-btn">
<button class="submit-btn">Sign In</button>
</div>
<p class="mt-2"> Not a member? <a href="/register">Create Account</a> </p>
</form>
</div>
<!Booking form>
</div>
</div>
</div>
</div>
<script src="https://cdnjs.cloudflare.com/ajax/libs/gsap/3.8.0/gsap.min.js"
defer></script>
<!-- ===== SCRIPT.JS ===== -->
<script src="{ {url_for('static', filename='script.js' )} }" defer></script>
</body>
</html>
```

About.HTML

## Register Page:

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="utf-8">
<meta http-equiv="X-UA-Compatible" content="IE=edge">
<meta name="viewport" content="width=device-width, initial-scale=1">
<!-- The above 3 meta tags *must* come first in the head; any other head content
must
come *after* these tags -->
<title>Find Me</title>
<link href="https://fonts.googleapis.com/css?family=Lato:400,700"
rel="stylesheet">
<link type="text/css" rel="stylesheet" href="{ { url_for('static',
filename='css/bootstrap.min.css') } }" />
<link type="text/css" rel="stylesheet" href="{ { url_for('static',
filename='css/style.css') } }"
/>
<style>
#booking
{
font-family: 'Lato', sans-serif;
/* background: url(.../static/background.png); */
background-size: cover;
```

```
background-position: center;
color: #191a1e;
background-color: #f44336;
}
</style>
<script src="https://code.jquery.com/jquery-3.5.1.slim.min.js" integrity="sha384-
DfXdz2htPH0lsSSs5nCTpuj/zy4C+OGpamoFVy38MVBnE+IbbVYUew+OrCXa
Rkfj"
crossorigin="anonymous"></script>
<script
src="https://cdn.jsdelivr.net/npm/bootstrap@4.5.3/dist/js/bootstrap.bundle.min.js"
integrity="sha384-
ho+j7jyWK8fNQe+A12Hb8AhRq26LrZ/JpcUGGOn+Y7RsweNrtN/tE3MoK7Ze
ZDyx"
crossorigin="anonymous"></script>
</head>
<body>
<div id="booking" class="section">
<div class="section-center">
<div class="container">
<div class="row">
<div class="col-md-4">
<div class="booking-cta">
<h1>Sign Up</h1>
<p style="color:#fff">Let You Create An Account With Us.</p>
<div class="container">
```

```
<!-- {{ prediction_text }} -->
{% if prediction_text == "0" %}
<h2 style="color:#fff"> "Account Successfully Created" </h2>
{% elif prediction_text == 1 %}
<h2 style="color:#fff">" Sorry, The Flight Is Delayed " </h2>
{% endif %}

</div>

</div>

</div>

<div class="col-md-6 col-md-offset-1">
<div class="booking-form">
<form class="form" method="post" action="/add_user">
<div class="row">
<div class="col-md-12">
<div class="form-group">
<span class="form-label">Name</span>
<input type="text" class="form-control" name="name"
placeholder="Enter Your Name" required="true">
<span class="select-arrow"></span>
</div>
</div>
</div>
<div class="row">
<div class="col-md-12">
<div class="form-group">
```

```
<span class="form-label">Email</span>
<input type="email" class="form-control" name="email"
placeholder="Enter Your Email" required="true">
<span class="select-arrow"></span>
</div>
</div>
</div>
<div class="row">
<div class="col-md-12">
<div class="form-group">
<span class="form-label">Password</span>
<input type="password" class="form-control" name="password"
placeholder="Enter Your Password" required="true">
<span class="select-arrow"></span>
</div>
</div>
</div>
<div class="form-btn">
<button class="submit-btn">Sign Up</button>
</div>
<div class="form-btn">
<p class="mt-2"> Already a member? <a href="/login">Sign In</a> </p>
</div>
</form>
</div>
```

<!Booking form>

</div>

</div>

</div>

</div>

<script src="https://unpkg.com/aos@2.3.1/dist/aos.js"></script>

<!-- ===== GSAP CDN ===== -->

<script  
src="https://cdnjs.cloudflare.com/ajax/libs/gsap/3.8.0/gsap.min.js"></script>

<!-- ===== SCRIPT.JS ===== -->

<script src="{ {url\_for('static', filename='script.js' )} }" defer></script>

</body>

</html>

## Delay Page:

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="utf-8">
<meta http-equiv="X-UA-Compatible" content="IE=edge">
<meta name="viewport" content="width=device-width, initial-scale=1">
<!-- The above 3 meta tags *must* come first in the head; any other head content
must
come *after* these tags -->
<title>Find Me</title>
<link href="https://fonts.googleapis.com/css?family=Lato:400,700"
rel="stylesheet">
<link type="text/css" rel="stylesheet" href="{ { url_for('static',
filename='css/bootstrap.min.css') } }" />
<link type="text/css" rel="stylesheet" href="{ { url_for('static',
filename='css/style.css') } }"
/>
<style>
#booking
{
font-family: 'Lato', sans-serif;
background: url(../static/banner4.jpg);
background-size: cover;
```



```
background-position: center;
color: #191a1e;
}
</style>
<!---->
<!-- HTML5 shim and Respond.js for IE8 support of HTML5 elements and media
queries --
>
<!-- WARNING: Respond.js doesn't work if you view the page via file:// -->
<!--[if lt IE 9]>
<script
src="https://oss.maxcdn.com/html5shiv/3.7.3/html5shiv.min.js"></script>
<script src="https://oss.maxcdn.com/respond/1.4.2/respond.min.js"></script>
<script src="https://unpkg.com/aos@2.3.1/dist/aos.js"></script>
<!-- ===== GSAP CDN ===== -->
<script
src="https://cdnjs.cloudflare.com/ajax/libs/gsap/3.8.0/gsap.min.js"></script>
<!-- ===== SCRIPT.JS ===== -->
<script src="{ {url_for('static', filename='script.js' ) }}" defer></script>
</head>
<body>
<div id="booking" class="section">
<div class="section-center">
<div class="container">
<div class="row">
<div class="col-md-4">
```

```
<div class="booking-cta">
<h1>Find Me</h1>
<p style="color:#fff">Let's Track Your Flights In Seconds.</p>
<div class="container">
<!-- {{ prediction_text }} -->
{% if prediction_text == 0 %}
<h2 style="color:#fff">" The Flight Will Be OnTime "</h2>
{% elif prediction_text == 1 %}
<h2 style="color:#fff">" Sorry, The Flight Is Delayed "</h2>
{% endif %}
</div>
</div>
</div>
</div>
<div class="col-md-7 col-md-offset-1">
<div class="booking-form">
<form action={{ url_for("predict") }} method="post">
<div class="row">
<div class="col-md-4">
<div class="form-group">
<span class="form-label">Year</span>
<input type="text" class="form-control" name="year"
placeholder="Enter year" required="true">
<span class="select-arrow"></span>
</div>
</div>
</div>
```

```
<!--Year-->
<div class="col-md-4">
<div class="form-group">
<span class="form-label">Month</span>
<input type="text" class="form-control" name="month"
placeholder="Enter month" required="true">
<span class="select-arrow"></span>
</div>
</div>
<!--Month-->
<div class="col-md-4">
<div class="form-group">
<span class="form-label">Date</span>
<input type="text" class="form-control" name="day"
placeholder="Enter date" required="true">
<span class="select-arrow"></span>
</div>
</div>
<!-- Date-->
</div>
<!--Year,Month,Date end-->
<div class="row">
Inc.(MQ)</option>
<div class="col-md-6">
<div class="form-group">
```

```
<span class="form-label">Select an Airline</span>
<!-- <input class="form-control" type="date" required> -->
<select class="form-control" name="carrier">
<option value="UA">United Air Lines Inc.(UA)</option>
<option value="AA">American Airlines Inc.(AA)</option>
<option value="US">US Airways Inc.(US)</option>
<option value="F9">Frontier Airlines Inc.(F9)</option>
<option value="B6">JetBlue Airways(B6)</option>
<option value="OO">Skywest Airlines Inc.(OO)</option>
<option value="AS">Alaska Airlines Inc.(AS)</option>
<option value="WN">Southwest Airlines Co.(WN)</option>
<option value="DL">Delta Air Lines Inc.(DL)</option>
<option value="EV">Atlantic Southeast Airlines(EV)</option>
<option value="HA">Hawaiian Airlines Inc.(HA)</option>
<option value="MQ">American Eagle Airlines
<option value="VX">Virgin America(VX)</option>
<option value="9E">Endeavor Air(9E)</option>
<option value="FL">AirTran Airways(FL)</option>
<option value="YV">Mesa Airlines(YV)</option>
</select>
</div>
</div>
<!Airline>
</div>
<!--Airline end-->
```

```
<div class="row">
  <!-- airport">-->
  <div class="col-md-6">
    <div class="form-group">
      <span class="form-label">Flying from</span>
      <!-- <!--<input class="form-control" type="text" placeholder="City or -->
      <select class="form-control" name="origin">
        <option value="EWR">Newark Liberty International
        Airport(EWR)</option>
        <option value="JFK">John F. Kennedy International
        Airport(New York International Airport)(JFK)</option>
        <option value="LGA">LaGuardia Airport(Marine Air
        Terminal)(LGA)</option>
      </select>
    </div>
  </div>
  <!-- Flying from>
  <!-- or airport"> -->
  <div class="col-md-6">
    <div class="form-group">
      <span class="form-label">Flying to</span>
      <!-- <!-- <input class="form-control" type="text" placeholder="City -->
      <select class="form-control" name="dest">
        <option value="ATL">Hartsfield-Jackson Atlanta
        International Airport(ATL)</option>
```

<option value="ORD">Chicago O'Hare International  
Airport(ORD)</option>  
Airport(LAX)</option>  
<option value="LAX">Los Angeles International  
<option value="BOS">Gen. Edward Lawrence Logan  
International Airport(BOS)</option>  
<option value="MCO">Orlando International  
Airport(MCO)</option>  
Airport(CLT)</option>  
<option value="CLT">Charlotte Douglas International  
Airport(SFO)</option>  
<option value="SFO">San Francisco International  
<option value="FLL">Fort Lauderdale-Hollywood  
International Airport(FLL)</option>  
<option value="MIA">Miami International  
Airport(MIA)</option>  
Airport(DCA)</option>  
Airport(DTW)</option>  
Airport(DFW)</option>  
Airport(RDU)</option>  
Airport(TPA)</option>  
Airport(DEN)</option>  
Airport(IAH)</option>  
Airport(MSP)</option>  
Airport(PBI)</option>

Airport(BNA)</option>

Airport(LAS)</option>

Airport(SJU)</option>

Airport(IAD)</option>

Airport(PHX)</option>

Airport(BUF)</option>

Airport(CLE)</option>

Lambert Field(STL)</option>

Airport(MDW)</option>

Airport(SEA)</option>

<option value="DCA">Ronald Reagan Washington National

<option value="DTW">Detroit Metropolitan

<option value="DFW">Dallas/Fort Worth International

<option value="RDU">Raleigh-Durham International

<option value="TPA">Tampa International

<option value="DEN">Denver International

<option value="IAH">George Bush Intercontinental

<option value="MSP">Minneapolis-Saint Paul International

<option value="PBI">Palm Beach International

<option value="BNA">Nashville International

<option value="LAS">McCarran International

<option value="SJU">Luis Mu oz Mar n International

<option value="IAD">Washington Dulles International

<option value="PHX">Phoenix Sky Harbor International

<option value="BUF">Buffalo Niagara International

<option value="CLE">Cleveland Hopkins International  
<option value="STL">St. Louis International Airport at  
<option value="MDW">Chicago Midway International  
<option value="SEA">Seattle-Tacoma International  
<option value="CVG">Cincinnati/Northern Kentucky  
International Airport(CVG)</option>  
<option value="MSY">Louis Armstrong New Orleans  
International Airport(MSY)</option>  
<option value="RSW">Southwest Florida International  
Airport(RSW)</option>  
Airport(CMH)</option>  
<option value="CMH">Port Columbus International  
<option value="CHS">Charleston International  
Airport/Charleston AFB(CHS)</option>  
<option value="PIT">Pittsburgh International  
Airport(PIT)</option>  
<option value="SAN">San Diego International AirportÂ  
(Lindbergh Field)(SAN)</option>  
<option value="MKE">General Mitchell International  
Airport(MKE)</option>  
Airport(JAX)</option>  
Airport(BTV)</option>  
Airport(SLC)</option>  
Airport(AUS)</option>  
Airport(ROC)</option>



Airport(RIC)</option>

Jetport(PWM)</option>

Airport(HOU)</option>

Airport(IND)</option>

Airport(MCI)</option>

Airport(SYR)</option>

Airport(BWI)</option>

Airport(MEM)</option>

Airport(PHL)</option>

Airport(GSO)</option>

Airport(ORF)</option>

<option value="JAX">Jacksonville International

<option value="BTV">Burlington International

<option value="SLC">Salt Lake City International

<option value="AUS">Austin-Bergstrom International

<option value="ROC">Greater Rochester International

<option value="RIC">Richmond International

<option value="PWM">Portland International

<option value="HOU">William P. Hobby

<option value="IND">Indianapolis International

<option value="MCI">Kansas City International

<option value="SYR">Syracuse Hancock International

<option value="BWI">Baltimore-Washington International

<option value="MEM">Memphis International

<option value="PHL">Philadelphia International

<option value="GSO">Piedmont Triad International  
<option value="ORF">Norfolk International  
Airport(DAY)</option>  
Airport(PDX)</option>  
Airport(SRQ)</option>  
<option value="DAY">James M. Cox Dayton International  
<option value="PDX">Portland International  
<option value="SRQ">Sarasota-Bradenton International  
<option value="SDF">Louisville International AirportÂ  
(Standiford Field)(SDF)</option>  
<option value="XNA">Northwest Arkansas Regional  
Airport(XNA)</option>  
Airport(MHT)</option>  
Airport(BQN)</option>  
Airport(CAK)</option>  
<option value="MHT">Manchester-Boston Regional  
<option value="BQN">Rafael HernÃ¡ndez  
<option value="CAK">Akron-Canton Regional  
<option value="OMA">Eppley Airfield(OMA)</option>  
<option value="SNA">John Wayne AirportÂ (Orange  
County Airport)(SNA)</option>  
<option value="GSP">Greenville-Spartanburg International  
Airport(GSP)</option>  
Airport(SAV)</option>  
Airport(GRR)</option>

Airport(HNL)</option>

Field)(LGB)</option>

Airport(SAT)</option>

Airport(TYS)</option>

Airport(MSN)</option>

Airport(DSM)</option>

Airport(ALB)</option>

Airport(BDL)</option>

<option value="SAV">Savannah/Hilton Head International

<option value="GRR">Gerald R. Ford International

<option value="HNL">Honolulu International

<option value="LGB">Long Beach AirportÂ (Daugherty

<option value="SAT">San Antonio International

<option value="TYS">McGhee Tyson

<option value="MSN">Dane County Regional

<option value="DSM">Des Moines International

<option value="STT">Cyril E. King Airport(STT)</option>

<option value="ALB">Albany International

<option value="BDL">Bradley International

<option value="BUR">Bob Hope AirportÂ (Hollywood  
Burbank Airport)(BUR)</option>

<option value="PVD">Theodore Francis Green State

Airport(PVD)</option>

Airport(BGR)</option>

<option value="BGR">Bangor International

<option value="PSE">Mercedita Airport(PSE)</option>

<option value="SJC">Norman Y. Mineta San JosÃ©

International Airport(SJC)</option>

<option value="OKC">Will Rogers World

Airport(OKC)</option>

Airport(OAK)</option>

Airport(TUL)</option>

Airport(SMF)</option>

<option value="AOK">Oakland International

<option value="TUL">Tulsa International

<option value="SMF">Sacramento International

<option value="BMH">Birmingham-Shuttlesworth

International Airport(BHM)</option>

<option value="ACK">Nantucket Memorial

Airport(ACK)</option>

Airport(AVL)</option>

Sunport(ABQ)</option>

Airport(MVY)</option>

Airport(EGE)</option>

Airport(ILM)</option>

Airport(CAE)</option>

Airport(TVC)</option>

Airport(MYR)</option>

Airport(CHO)</option>

<option value="AVL">Asheville Regional

<option value="ABQ">Albuquerque International  
<option value="MVY">Martha's Vineyard  
<option value="EGE">Eagle County Regional  
<option value="CRW">Yeager Airport(CRW)</option>  
<option value="ILM">Wilmington International  
<option value="CAE">Columbia Metropolitan  
<option value="TVC">Cherry Capital  
<option value="MYR">Myrtle Beach International  
<option value="CHO">Charlottesville-Albemarle  
<option value="BZN">Bozeman Yellowstone International  
AirportÂ (Gallatin Field Airport)(BZN)</option>  
<option value="JAC">Jackson Hole Airport(JAC)</option>  
<option value="PSP">Palm Springs International  
Airport(PSP)</option>  
Airport(EYW)</option>  
<option value="EYW">Key West International  
<option value="HDN">Yampa Valley AirportÂ (Yampa  
Valley Regional)(HDN)</option>  
<option value="MTJ">Montrose Regional  
Airport(MTJ)</option>  
<option value="SBN">South Bend International AirportÂ  
(South Bend Regional)(SBN)</option>  
<option value="ANC">Ted Stevens Anchorage International  
Airport(ANC)</option>  
<option value="LEX">Blue Grass Airport(LEX)</option>



```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8" />
<meta http-equiv="X-UA-Compatible" content="IE=edge" />
<meta name="viewport" content="width=device-width, initial-scale=1.0" />
<title>Find Me</title>
<style>
#nav_menu
{
font-family: 'Lato', sans-serif;
background: url(../static/background1.png);
background-size: cover;
background-position: center;
color: #191a1e;
}
</style>
<!-- ===== STYLE.CSS ===== -->
<link type="text/css" rel="stylesheet" href="{ { url_for('static',
filename='css/style1.css') } }"
/>
<!-- ===== REMIXICON CDN ===== -->
<link
href="https://cdn.jsdelivr.net/npm/remixicon@2.5.0/fonts/remixicon.css"
rel="stylesheet"
```

```
/>
<!-- ===== ANIMATE ON SCROLL CSS CDN ===== -->
<link href="https://unpkg.com/aos@2.3.1/dist/aos.css" rel="stylesheet" />
</head>
<body>
<!-- ===== HEADER ===== -->
<header class="container header">
<!-- ===== NAVBAR ===== -->
<nav class="nav">
<div class="logo">
<h2>Find Me</h2>
</div>
<div class="nav_menu" id="nav_menu">
<button class="close_btn" id="close_btn">
<i class="ri-close-fill"></i>
</button>
<ul class="nav_menu_list"></ul>
<br>
<br>
<li class="nav_menu_item">
<a href="/login" class="nav_menu_link">Sign In</a>
</li>
<li class="nav_menu_item">
<a href="/register" class="nav_menu_link">Sign Up</a>
</li>
```



```
<li class="nav_menu_item">
<a href="/service" class="nav_menu_link">Service</a>
</li>
<li class="nav_menu_item">
<a href="/home1" class="nav_menu_link">Home</a>
</li>
</ul>
</div>
<button class="toggle_btn" id="toggle_btn">
<i class="ri-menu-line"></i>
</button>
</nav>
</header>
<section class="wrapper">
<div class="container">
<div class="grid-cols-2">
<div class="grid-item-1">
<p class="info-text"; style="color:#000">Hello Travellers,<p>
<h1 class="main-heading" >
Welcome to <span>Find Me</span>
<br/>Flight Tracker
</h1>
<p class="info-text">
Let's Track Your Flights In Seconds
</p>
```

```
<div class="btn_wrapper">
  <form action="/login" method="get">
    <button class="btn view_more_btn">
      Find
    </button>
  </form>
  <form action="https://github.com/IBM-EPBL/IBM-Project-18828-1659690581"
    method="get">
    <button class="btn documentation_btn">Help ?</button>
  </form>
</div>
</div>
<div class="grid-item-2">
  <div class="team_img_wrapper">
    <!--  -->
  </div>
  </div>
  </div>
  </div>
  </div>
</section>
<!-- ===== ANIMATE ON SCROLL JS CDN -->
<script src="https://unpkg.com/aos@2.3.1/dist/aos.js"></script>
<!-- ===== GSAP CDN ===== -->
<script
src="https://cdnjs.cloudflare.com/ajax/libs/gsap/3.8.0/gsap.min.js"></script>
<!-- ===== SCRIPT.JS ===== -->
```

```
<script src="{ {url_for('static', filename='script.js' )} }" defer></script>
</body>
</html>
```

### **Service page:**

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8" />
<meta http-equiv="X-UA-Compatible" content="IE=edge" />
<meta name="viewport" content="width=device-width, initial-scale=1.0" />
<title>About</title>
<style>
#nav_menu
```

```
{
font-family: 'Lato', sans-serif;
background: url(../static/background1.png);
background-size: cover;
background-position: center;
color: #191a1e;
/* background-color: #f44336; */
}
</style>

<!-- ===== STYLE.CSS ===== -->

<link type="text/css" rel="stylesheet" href="{ { url_for('static',
filename='css/style1.css') } }"

/>

<!-- ===== REMIXICON CDN ===== -->

<link

href="https://cdn.jsdelivr.net/npm/remixicon@2.5.0/fonts/remixicon.css"
rel="stylesheet"

/>

<!-- ===== ANIMATE ON SCROLL CSS CDN ===== -->

<link href="https://unpkg.com/aos@2.3.1/dist/aos.css" rel="stylesheet" />

</head>

<body>

<!-- ===== HEADER ===== -->

<header class="container header">

<!-- ===== NAVBAR ===== -->

<nav class="nav">
```

```
<div class="logo">
<h2>Service</h2>
</div>

<div class="nav_menu" id="nav_menu">
  <button class="close_btn" id="close_btn">
    <i class="ri-close-fill"></i>
  </button>

  <ul class="nav_menu_list">
    <li class="nav_menu_item">
      <a href="/" class="nav_menu_link">Home</a>
    </li>
    <li class="nav_menu_item">
      <a href="/register" class="nav_menu_link">Sign Up</a>
    </li>
    <li class="nav_menu_item">
      <a href="/login" class="nav_menu_link">Sign In</a>
    </li>
    <li class="nav_menu_item">
      <a href="/about" class="nav_menu_link">About</a>
    </li>
  </ul>
</div>

<button class="toggle_btn" id="toggle_btn">
  <i class="ri-menu-line"></i>
</button>
```

```
</nav>
</header>
<section class="wrapper">
<div class="container">
<div class="grid-cols-2">
<div class="grid-item-1">
<p class="info-text"; style="color:#000">We are providing the<p>
<h1 class="main-heading" >
<span> Flight Delay </span>Prediction</br> Service
</h1>
<p class="info-text">
Using Machine Learning
</p>
<div class="btn_wrapper">
<form action="https://github.com/IBM-EPBL/IBM-Project-46775-1660758589"
method="get">
<button class="btn view_more_btn" action="/login">
GitHub Repo
</button>
</form>
<form action="/" method="get">
<button type="submit" class="btn documentation_btn">Back</button>
</form>
</div>
</div>
```

```
<div class="grid-item-2">
<div class="team_img_wrapper">
<!--  -->
</div>
</div>
</div>
</div>
</section>
<!-- ===== ANIMATE ON SCROLL JS CDN -->
<script src="https://unpkg.com/aos@2.3.1/dist/aos.js"></script>
<!-- ===== GSAP CDN ===== -->
<script
src="https://cdnjs.cloudflare.com/ajax/libs/gsap/3.8.0/gsap.min.js"></script>
<!-- ===== SCRIPT.JS ===== -->
<script src="{ {url_for('static', filename='script.js' )} }" defer></script>
</body>
</html>
```

## **App.py:**

```
from flask import Flask, render_template, request

import requests

import requests

# NOTE: you must manually set API_KEY below using information retrieved
from your IBM

# Cloud account.

import requests

# NOTE: you must manually set API_KEY below using information retrieved
from your IBM

# Cloud account.

API_KEY = "2DFmuohBDmMuaxLg06oY9hJbEdzik5-CRKjdn6yGB762"

token_response = requests.post('https://iam.cloud.ibm.com/identity/token',
data={"apikey":
API_KEY, "grant_type": 'urn:ibm:params:oauth:grant-type:apikey'})

mltoken = token_response.json()["access_token"]

header = {'Content-Type': 'application/json', 'Authorization': 'Bearer ' + mltoken}

import mysql.connector

app = Flask(__name__)

conn=mysql.connector.connect(host="localhost", user="root", password="",
database="login")

cursor=conn.cursor()

@app.route('/')

def index():

    return render_template('index.html')
```



```
@app.route('/login')
def login(): # put application's code here
    return render_template('login.html')

@app.route('/register')
def register():
    return render_template('register.html')

@app.route('/modeling')
def modeling():
    return render_template('modeling.html')

@app.route('/home')
def home():
    return render_template('home.html')

@app.route('/service')
def service():
    return render_template('service.html')

@app.route('/home1')
def about():
    return render_template('home1.html')

@app.route('/login_validation', methods=['POST'])
def login_validation():
    email=request.form.get('email')
    password=request.form.get('password')
    cursor.execute("""SELECT * FROM `users` WHERE `email` LIKE'{}' AND
`password`
LIKE '{}'""".format(email,password))
    users = cursor.fetchall()
```

```

if len(users)>0:
    return render_template('home.html')
else:
    return render_template('login.html', prediction_text = "1" )
@app.route('/add_user', methods=['POST'])
def add_user():
    name= request.form.get('name')
    email = request.form.get('email')
    password = request.form.get('password')
    cursor.execute("""INSERT INTO `users`(`id`, `name`, `email`, `password`)
VALUES
(NULL, '{}', '{}', '{}')""".format(name,email,password))
    conn.commit()
    return render_template('login.html', prediction_text = "0")
@app.route('/predict',methods=['POST'])
def predict():

    year = request.form['year']
    month = request.form['month']
    day = request.form['day']
    carrier = request.form['carrier']
    origin = request.form['origin']
    dest = request.form['dest']

    if (carrier=="UA"):
        carrier=11

```

```
if (carrier=="AA"):
    carrier=1
if (carrier=="B6"):
    carrier=3
if (carrier=="DL"):
    carrier=4
if (carrier=="EV"):
    carrier=8
if (carrier=="MQ"):
    carrier=9
if (carrier=="US"):
    carrier=12
if (carrier=="WN"):
    carrier=14
if (carrier=="VX"):
    carrier=13
if (carrier=="FL"):
    carrier=7
if (carrier=="AS"):
    carrier=2
if (carrier=="9E"):
    carrier=0
if (carrier=="F9"):
    carrier=9
if (carrier=="HA"):
```

```
    carrier=4  
if (carrier=="OO"):   
    carrier=5  
if (carrier=="YV"):   
    carrier=15
```

```
if (origin=="EWR"):   
    origin=0  
if (origin=="LGA"):   
    origin=2  
if (origin=="JFK"):   
    origin=1
```

```
if (dest=="ATL"):   
    dest=4  
if (dest=="IAH"):   
    dest=43  
if (dest=="MIA"):   
    dest=57  
if (dest=="BQN"):   
    dest=12  
if (dest=="ORD"):   
    dest=68  
if (dest=="FLL"):   
    dest=35
```

```
if (dest=="IAD"):
    dest=42
if (dest=="MCO"):
    dest=53
if (dest=="PBI"):
    dest=70
if (dest=="TPA"):
    dest=99
if (dest=="LAX"):
    dest=49
if (dest=="SFO"):
    dest=89
if (dest=="DFW"):
    dest=30
if (dest=="BOS"):
    dest=11
if (dest=="LAS"):
    dest=48
if (dest=="MSP"):
    dest=60
if (dest=="DTW"):
    dest=32
if (dest=="RSW"):
    dest=82
if (dest=="SJU"):
```

```
    dest=91
if (dest=="PHX"):
    dest=73
if (dest=="BWI"):
    dest=16
if (dest=="CLT"):
    dest=23
if (dest=="BOS"):
    dest=11
if (dest=="BUF"):
    dest=14
if (dest=="DEN"):
    dest=29
if (dest=="SNA"):
    dest=94
if (dest=="LAS"):
    dest=48
if (dest=="MSY"):
    dest=61
if (dest=="SLC"):
    dest=92
if (dest=="SEA"):
    dest=88
if (dest=="ROC"):
    dest=99
```

if (dest=="ATL"):

dest=4

if (dest=="DCA"):

dest=33

if (dest=="RDU"):

dest=4

if (dest=="BNA"):

dest=4

if (dest=="CLE"):

dest=88

if (dest=="STL"):

dest=82

if (dest=="MDW"):

dest=99

if (dest=="CVG"):

dest=68

if (dest=="CMH"):

dest=68

if (dest=="CHS"):

dest=99

if (dest=="PIT"):

dest=1

if (dest=="SAN"):

dest=82

if (dest=="MKE"):

```
    dest=11
if (dest=="JAX"):
    dest=88
if (dest=="BTV"):
    dest=4
if (dest=="AUS"):
    dest=23
if (dest=="RIC"):
    dest=64
if (dest=="PWM"):
    dest=83
if (dest=="HOU"):
    dest=89
if (dest=="IND"):
    dest=47
if (dest=="MCI"):
    dest=80
if (dest=="SYR"):
    dest=78
if (dest=="BWI"):
    dest=4
if (dest=="MEM"):
    dest=23
if (dest=="PHL"):
    dest=14
```



if (dest=="GSO"):

dest=96

if (dest=="ORF"):

dest=23

if (dest=="DAY"):

dest=57

if (dest=="PDX"):

dest=83

if (dest=="SRQ"):

dest=91

if (dest=="SDF"):

dest=29

if (dest=="XNA"):

dest=88

if (dest=="MHT"):

dest=43

if (dest=="BDL"):

dest=23

if (dest=="OMA"):

dest=4

if (dest=="GSP"):

dest=57

if (dest=="SAV"):

dest=28

if (dest=="GRR"):

```
    dest=16
if (dest=="HNL"):
    dest=24
if (dest=="SAT"):
    dest=30
if (dest=="TYS"):
    dest=99
if (dest=="MSN"):
    dest=55
if (dest=="DSM"):
    dest=23
if (dest=="STT"):
    dest=23
if (dest=="ALB"):
    dest=99
if (dest=="BUR"):
    dest=41
if (dest=="PVD"):
    dest=32
if (dest=="PSE"):
    dest=96
if (dest=="OKC"):
    dest=61
if (dest=="TUL"):
    dest=60
```

```
if (dest=="SMF"):
```

```
    dest=88
```

```
if (dest=="ACK"):
```

```
    dest=11
```

```
if (dest=="AVL"):
```

```
    dest=10
```

```
if (dest=="ABQ"):
```

```
    dest=30
```

```
if (dest=="MVY"):
```

```
    dest=68
```

```
if (dest=="EGE"):
```

```
    dest=32
```

```
if (dest=="CRW"):
```

```
    dest=4
```

```
if (dest=="ILM"):
```

```
    dest=79
```

```
if (dest=="CAE"):
```

```
    dest=69
```

```
t=[[int(year),int(month),int(day),int(carrier),int(origin),int(dest)]]
```

```
    payload_scoring = {"input_data": [{"fields": ["f0","f1","f2","f3","f4","f5"]},  
"values":t ]]}
```

```
    #paload_scoring = {"input_data": [{"fields": [array_of_input_fields],  
"values":
```

```
[0, 0]
```

```
response_scoring = requests.post('https://us-  
south.ml.cloud.ibm.com/ml/v4/deployments/b6206819-9cf0-4be3-ad76-  
6949a3a90717/predictions?version=2022-11-18', json=payload_scoring,  
headers={'Authorization': 'Bearer ' + mltoken})
```

```
print("Scoring response")
```

```
payload_scoring = {"input_data": [{"fields": ["f0", "f1", "f2", "f3", "f4", "f5"]},  
"values":t ]]}
```

```
pred= response_scoring.json()
```

```
output=pred['predictions'][0]['values'][0][0]
```

```
print(output)
```

```
return render_template('home.html', prediction_text = output)
```

```
if __name__ == '__main__':
```

```
    app.run(debug=True)
```

```
# For mac, make 'app.run(debug=True)'
```

## Styles:

mystyle:

```
* {  
  margin: 0;  
  padding: 0;  
  font-family: verdana;  
  font-size: 14px;  
}
```

```
.main-container {  
  padding: 0px;  
  margin: 10px;  
}
```

/\* Header section css starts \*/

```
.header_header .menu-container {  
  display: flex;  
  align-items: center;  
}
```

```
.main-container .header_header {
```

```
display: flex;
justify-content: space-between;
border-bottom: 2px solid #ddd;
padding: 0px 30px;
box-shadow: 1px -8px 15px 7px #dddd;
margin-bottom: 10px;
}
```

```
.menu-container .dropbtn {
background-color: white;
color: #387cc4;
border: none;
font-size: 20px;
}
```

```
.menu-container .dropdown {
position: relative;
display: inline-block;
padding: 15px 27px;
}
```

```
.menu-container .dropdown-content {
display: none;
position: absolute;
background-color: #f1f1f1;
```

```
min-width: 160px;
box-shadow: 0px 8px 16px 0px rgba(0, 0, 0, 0.2);
z-index: 1;
}
```

```
.menu-container .dropdown-content a {
    color: black;
    text-decoration: none;
    display: block;
    padding: 10px;
}
```

```
.menu-container .dropbtn a {
    font-size: 20px;
    color: #387cc4;
    text-decoration: none;
}
```

```
.menu-container .dropbtn a:hover {
    color: #fff;
}
```

```
.menu-container .dropdown-content a:hover {
    background-color: #ddd;
}
```

```
.menu-container .dropdown:hover .dropdown-content {  
    display: block;  
}
```

```
.menu-container .dropdown:hover .dropbtn {  
    background-color: #387cc4;  
    color: white;  
    padding: 10px 22px;  
}
```

```
.text {  
    padding: 15px 264px;  
    font-size: 42px;  
    font-weight: 400;  
}
```

```
/* Header section css ends */
```

```
/* video section css stars */
```

```
.video-container {  
    margin-left: 260px;
```



```
}
```

```
/* video section css ends */
```

```
/* Banner container starts */
```

```
.slideshow-container {  
    max-width: 100%;  
    max-height: 100%;  
    position: relative;  
    margin: auto;  
}
```

```
.mySlides {  
    display: none  
}
```

```
.slideshow-container img {  
    vertical-align: middle;  
    top: -10px;  
    height: 50%;  
    width: 100%;
```

```
}
```

```
.dot {  
    position: relative;  
    cursor: pointer;  
    top: -130px;  
    height: 15px;  
    width: 15px;  
    margin: 0 2px;  
    background-color: #bbb;  
    border-radius: 50%;  
    display: inline-block;  
    transition: background-color 0.6s ease;  
}
```

```
.active,  
.dot:hover {  
    background-color: #717171;  
}
```

```
/* Fading animation */
```

```
.fade {  
    -webkit-animation-name: fade;
```

```
-webkit-animation-duration: .5s;
animation-name: fade;
animation-duration: .5s;
}

/* Banner container ends */

/* Banner description starts */

.banner-content {
    padding: 32px 164px;
    border: 1px solid #104073;
    margin-top: 10px;
    box-shadow: 4px 4px 4px 4px #ddd;
}

/* .banner-desc {
    margin-top: 10px;
    box-shadow: 4px 4px 4px 4px #ddd;
} */

.banner-content h1,
```

```
.analysis-header h1 {  
    text-align: center;  
    font-size: 43px;  
    color: #104073;  
    margin-bottom: 30px;  
    font-weight: bold;  
}
```

```
.flight-desc p {  
    font-size: 20px;  
    text-align: center;  
    line-height: 30px;  
}
```

```
.flight-desc1 ul {  
    font-size: 20px;  
    line-height: 30px;  
}
```

```
.flight-desc1 {  
    padding: 10px 144px;  
}
```

```
.dataset-analysis-img img {  
    width: 1280px;
```

```
border: 1px solid #ddd;
margin-top: 20px;
}
```

```
.dataset-analysis-img {
    text-align: center;
}
```

```
/* Banner description ends */
```

```
/* Analysis banner */
```

```
.analysis-banners {
    margin: 20px;
    text-align: center;
}
```

```
.analysis-container1 img {
    padding: 10px;
    border: 1px solid #ccc;
    margin: 15px;
    box-shadow: 4px 4px 4px 4px #ddd;
}
```

```
/* footer starts */
```

```
footer {  
    text-align: center;  
    border-top: 1px solid #113c50;  
    padding: 25px;  
    background: #a2dcee;  
}
```

```
footer .footer-media {  
    margin-bottom: 18px;  
}
```

```
.copyright-area {  
    background: #a09797;  
    padding: 10px;  
    text-align: center;  
    color: #fff;  
}
```

```
/* footer ends */
```

```
/* registration page css starts */
```

```
.login-box {  
    text-align: center;  
    padding: 45px;  
}
```

```
.login-box .textbox {  
    padding: 15px;  
}
```

```
.login-box .textbox input {  
    padding: 16px;  
    width: 50%;  
}
```

```
.login-box h1 {  
    font-size: 40px;  
    color: #0a175c;  
}
```

```
.login-box .btn {  
    background: #0a175c;  
    color: #fff;
```

```
padding: 15px 79px;  
border-radius: 24px;  
}
```

```
/* container session start */
```

```
.container input[type=text],  
select,  
textarea {  
    width: 100%;  
    padding: 12px;  
    border: 1px solid #ccc;  
    border-radius: 4px;  
    box-sizing: border-box;  
    margin-top: 6px;  
    margin-bottom: 16px;  
    resize: vertical;  
}
```

```
.container input[type=submit] {  
    background-color: #387cc4;  
    color: white;  
    padding: 12px 20px;  
    border: none;
```



```
border-radius: 4px;  
cursor: pointer;  
}
```

```
.containerinput[type=submit]:hover {  
    background-color: #387cc4;  
}
```

```
.container {  
    border-radius: 5px;  
    background-color: #f2f2f2;  
    padding: 16px;  
    width: 50%;  
}
```

```
h2 {  
    color: #387cc4;  
    font-size: large;  
    padding-bottom: 40px;  
}
```

style:

```
.section {  
  position: relative;  
  height: 100vh;  
}  
  
.section .section-center {  
  position: absolute;  
  top: 50%;  
  left: 0;  
  right: 0;  
  -webkit-transform: translateY(-50%);  
  transform: translateY(-50%);  
}  
  
.booking-form {  
  position: relative;  
  background: #fff;  
  max-width: 642px;  
  width: 100%;  
  margin: auto;  
  padding: 45px 25px 25px;  
  border-radius: 4px;  
  -webkit-box-shadow: 0px 0px 10px -5px rgba(0, 0, 0, 0.4);  
  box-shadow: 0px 0px 10px -5px rgba(0, 0, 0, 0.4);  
}  
  
.booking-form .form-group {
```

```
position: relative;
margin-bottom: 20px;
}

.booking-form .form-control {
background-color: #fff;
height: 65px;
padding: 0px 15px;
padding-top: 24px;
color: #191a1e;
border: 2px solid #f44336ab;
font-size: 16px;
font-weight: 700;
-webkit-box-shadow: none;
box-shadow: none;
border-radius: 4px;
-webkit-transition: 0.2s all;
transition: 0.2s all;
}

.booking-form .form-control::-webkit-input-placeholder {
color: #fff;
}

.booking-form .form-control:-ms-input-placeholder {
color: #fff;
}

.booking-form .form-control::placeholder {
```

```
color: #00000099;
}
.booking-form .form-control:focus {
background: #fff;
}
.booking-form input[type="date"].form-control:invalid {
color: #dfe5e9;
}
.booking-form select.form-control {
-webkit-appearance: none;
-moz-appearance: none;
appearance: none;
}
.booking-form select.form-control+.select-arrow {
position: absolute;
right: 6px;
bottom: 6px;
width: 32px;
line-height: 32px;
height: 32px;
text-align: center;
pointer-events: none;
color: #dfe5e9;
font-size: 14px;
}
```

```
.booking-form select.form-control+.select-arrow:after {  
content: '\279C';  
display: block;  
-webkit-transform: rotate(90deg);  
transform: rotate(90deg);  
}
```

```
.booking-form .form-label {  
position: absolute;  
top: 6px;  
left: 20px;  
font-weight: 700;  
text-transform: uppercase;  
line-height: 24px;  
height: 24px;  
font-size: 12px;  
color: #f44336;  
}
```

```
.booking-form .form-checkbox input {  
position: absolute !important;  
margin-left: -9999px !important;  
visibility: hidden !important;  
}
```

```
.booking-form .form-checkbox label {  
position: relative;  
padding-top: 4px;
```

```
padding-left: 30px;
font-weight: 700;
color: #191a1e;
}

.booking-form .form-checkbox label+label {
margin-left: 15px;
}

.booking-form .form-checkbox input+span {
position: absolute;
left: 2px;
top: 4px;
width: 20px;
height: 20px;
background: #fff;
border: 2px solid #dfe5e9;
border-radius: 50%;
}

.booking-form .form-checkbox input+span:after {
content: "";
position: absolute;
top: 50%;
left: 50%;
width: 0px;
height: 0px;
border-radius: 50%;
```

```
background-color: #4fa3e3;
-webkit-transform: translate(-50%, -50%);
transform: translate(-50%, -50%);
-webkit-transition: 0.2s all;
transition: 0.2s all;
}

.booking-form .form-checkbox input:not(:checked)+span:after {
opacity: 0;
}

.booking-form .form-checkbox input:checked+span:after {
opacity: 1;
width: 10px;
height: 10px;
}

.booking-form .submit-btn {
color: #fff;
background-color: #f44336;
font-weight: 400;
height: 65px;
font-size: 18px;
border: none;
width: 100%;
border-radius: 4px;
text-transform: uppercase
}
```

```
.booking-form .submit-btn1 {  
  color: #fff;  
  background-color: #f44336;  
  font-weight: 200;  
  height: 35px;  
  font-size: 9px;  
  border: none;  
  width: 50%;  
  border-radius: 2px;  
  text-transform: uppercase  
}  
.booking-cta {  
  margin-top: 10px;  
}  
.booking-cta h1 {  
  font-size: 52px;  
  text-transform: uppercase;  
  color: #fff;  
  font-weight: 400;  
}  
.booking-cta p {  
  font-size: 22px;  
  color: #fff;  
}
```