

Team ID	PNT2022TMID48652
Project name	Skill/Job Recommender Application

app.py

```
import ibm_db

conn=ibm_db.connect("DATABASE=bludb;HOSTNAME=55fbc997-9266-4331-
afd3888b05e734c0.bs2io90l08kqb1od8lcg.databases.appdomain.cloud;PORT=
31929;SECURITY=SSL;SSLServerCertificate=DigiCertGlobalRootCA(1).crt;UID=sk
v86739;PWD=5JPCgewL7dD98EV9",",")

from flask import Flask;

from flask import render_template;

app = Flask(__name__)

@app.route("/")

@app.route("/welcome")

def welcome():

    return render_template('welcome.html')

@app.route("/home")

def home():

    return render_template('home.html')

@app.route("/index")

def index():

    return render_template('index.html')

@app.route("/about")

def about():

    return render_template('about.html')

@app.route("/signup")

def signup():

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

```
@app.route("/welcomepage")
def welcomepage():
    return render_template('welcomepage.html')
if __name__ == '__main__':
    app.run(debug=True)
```

about.html

```
<!doctype html>
<html lang="en">
  <head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1,
shrink-to-fit=no">
    <meta name="description" content="">
    <meta name="author" content="Mark Otto, Jacob Thornton, and Bootstrap
contributors">
    <meta name="generator" content="Jekyll v3.8.5">
    <title>SKILL / JOB RECOMMENDAR APPLICATION</title>
    <!-- Bootstrap core CSS -->
    <link href="/static/css/bootstrap.min.css" rel="stylesheet" integrity="sha384-
ggOyR0iXCbMQv3Xipma34MD+dH/1fQ784/j6cY/iJTQUOhcWr7x9JvoRxT2MZw
1T" crossorigin="anonymous">
    <style>
      .bd-placeholder-img {
        font-size: 1.125rem;
        text-align: middle;
        -webkit-user-select: none;
```

```
-moz-user-select: none;
-ms-user-select: none;
user-select: none;
}
```

```
@media (min-width: 768px) {
  .bd-placeholder-img-lg {
    font-size: 3.5rem;
  }
}
```

```
</style>
```

```
<!-- Custom styles for this template -->
```

```
<link href="\static\css\cover.css" rel="stylesheet">
```

```
</head>
```

```
<body class="text-center">
```

```
<div class="cover-container d-flex w-100 h-100 p-3 mx-auto flex-column">
```

```
<header class="masthead mb-auto">
```

```
<div class="inner">
```

```
<center>
```

```
<h1 class="masthead-brand">ABOUT</h1>
```

```
<nav class="nav nav-masthead justify-content-center">
```

```
<a class="nav-link active" href="http://localhost:5000/">Home</a>
```

```
</nav>
```

```
</center>
```

```
</div>
```

```
</header>
```

<main role="main" class="inner cover">

<p class="lead">Graduated students from various fields have wide employment opportunities. Each job in various field have different skill requirement for the interest of work field . Therefore, skill classification is needed to find out suitable career recommendation. Data from different students by accessing their profile using k-means clustering algorithm to find out hoe feasible the graduate for that particular job.But for the concern to safety purpose some of the details which are considered to be sensitive are hidden using text and images steganography algorithm to avoid misuse of data by attackers. After the assent from the students, that particular job provider can access the hidden-details, then collaboration filtering method by K.NN algorithm used to determine the classification based on proximity between, jobs and students skills.

</p>

<p class="lead">

Back

</p>

</main>

<footer class="mastfoot mt-auto">

<div class="inner">

<p><h4></h4></p>

</div>

</footer>

</div>

</body>

</html>

home.html

```
<!doctype html>
<html lang="en">
  <head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1,
shrink-to-fit=no">
    <meta name="description" content="">
    <meta name="author" content="Mark Otto, Jacob Thornton, and Bootstrap
contributors">
    <meta name="generator" content="Jekyll v3.8.5">
    <title>SKILL /JOB RECOMMENDER APPLICATION</title>
    <!-- Bootstrap core CSS -->
    <link href="/static/css/bootstrap.min.css" rel="stylesheet" integrity="sha384-
ggOyR0iXCbMQv3Xipma34MD+dH/1fQ784/j6cY/iJTQUOhcWr7x9JvoRxT2MZw
1T" crossorigin="anonymous">
    <style>
      .bd-placeholder-img {
        font-size: 1.125rem;
        text-align: middle;
        -webkit-user-select: none;
        -moz-user-select: none;
        -ms-user-select: none;
        user-select: none;
      }

      @media (min-width: 768px) {
```

```

        .bd-placeholder-img-lg {
            font-size: 3.5rem;
        }
    }
</style>
<!-- Custom styles for this template -->
<link href="\static\css\cover.css" rel="stylesheet">
</head>
<body class="text-center">
    <div class="cover-container d-flex w-100 h-100 p-3 mx-auto flex-column">
<header class="masthead mb-auto">
    <div class="inner">
        <center>
            <h3 class="masthead-brand"></h3>
            <nav class="nav nav-masthead justify-content-center">
                <a class="nav-link" href="http://localhost:5000/">Home</a>
                <a class="nav-link" href="http://localhost:5000/about">About</a>
                <a class="nav-link" href="http://localhost:5000/signup">Already have
an account?</a>
            </nav>
        </center>
    </div>
</header>
<main role="main" class="inner cover">
    <br>
    <br>
    <h1 class="cover-heading">SKILL / JOB RECOMMENDAR APPLICATION</h1>

```


<link href="/static/css/bootstrap.min.css" rel="stylesheet"
integrity="sha384-
ggOyR0iXCbMQv3Xipma34MD+dH/1fQ784/j6cY/iJTQUOhcWr7x9JvoRxT2MZw
1T" crossorigin="anonymous">

<style>

```
.bd-placeholder-img {  
  font-size: 1.125rem;  
  text-align: middle;  
  -webkit-user-select: none;  
  -moz-user-select: none;  
  -ms-user-select: none;  
  user-select: none;  
}
```

@media (min-width: 768px) {

```
.bd-placeholder-img-lg {  
  font-size: 3.5rem;  
}
```

}

</style>

<!-- Custom styles for this template -->

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

<link href="/static/css/bootstrap.min.css" rel="stylesheet"
integrity="sha384-
ggOyR0iXCbMQv3Xipma34MD+dH/1fQ784/j6cY/iJTQUOhcWr7x9JvoRxT2MZw
1T" crossorigin="anonymous">

<link href="\static\css\cover.css" rel="stylesheet">

```
</head>

<body class="text-center">

  <form class="form-signin">

    <h1 class="h3 mb-3 font-weight-normal"></h1>

    <label for="inputUsername" class="sr-only">User Name</label>

    <input type="text" id="inputUsername" class="form-control"
placeholder="User Name" required autofocus>

    <label for="inputRegnumber" class="sr-only">Register Number</label>

    <input type="text" id="inputRegnumber" class="form-control"
placeholder="Register Number" required autofocus>

    <label for="inputEmail" class="sr-only">Email address</label>

    <input type="email" id="inputEmail" class="form-control" placeholder="Email
address" required autofocus>

<!doctype html>

<html lang="en">

  <head>

    <meta charset="utf-8">

    <meta name="viewport" content="width=device-width, initial-scale=1,
shrink-to-fit=no">

    <meta name="description" content="">

    <meta name="author" content="Mark Otto, Jacob Thornton, and Bootstrap
contributors">

    <meta name="generator" content="Jekyll v3.8.5">

    <title>SKILL /JOB RECOMMENDER APPLICATION</title>

    <!-- Bootstrap core CSS -->

    <link href="/static/css/bootstrap.min.css" rel="stylesheet" integrity="sha384-
ggOyR0iXCbMQv3Xipma34MD+dH/1fQ784/j6cY/iJTQUOhcWr7x9JvoRxT2MZw
1T" crossorigin="anonymous">
```



```
<style>
```

```
.bd-placeholder-img {  
  font-size: 1.125rem;  
  text-align: middle;  
  -webkit-user-select: none;  
  -moz-user-select: none;  
  -ms-user-select: none;  
  user-select: none;  
}
```

```
@media (min-width: 768px) {  
  .bd-placeholder-img-lg {  
    font-size: 3.5rem;  
  }  
}
```

```
</style>
```

```
<!-- Custom styles for this template -->
```

```
<link href="\static\css\cover.css" rel="stylesheet">
```

```
</head>
```

```
<body class="text-center">
```

```
<div class="cover-container d-flex w-100 h-100 p-3 mx-auto flex-column">
```

```
<header class="masthead mb-auto">
```

```
<div class="inner">
```

```
<center>
```

```
<h3 class="masthead-brand"></h3>
```

```
<nav class="nav nav-masthead justify-content-center">
  <a class="nav-link" href="http://localhost:5000/">Home</a>
  <a class="nav-link" href="http://localhost:5000/about">About</a>
  <a class="nav-link" href="http://localhost:5000/signup">Already have
an account?</a>
</nav>
</center>
</div>
</header>
<main role="main" class="inner cover">
  <br>
  <br>
  <h1 class="cover-heading">SKILL / JOB RECOMMENDAR APPLICATION</h1>
  <br>
  <link href="/static/css/bootstrap.min.css" rel="stylesheet"
integrity="sha384-
ggOyR0iXCbMQv3Xipma34MD+dH/1fQ784/j6cY/iJTQUOhcWr7x9JvoRxT2MZw
1T" crossorigin="anonymous">
  <style>
    .bd-placeholder-img {
      font-size: 1.125rem;
      text-align: middle;
      -webkit-user-select: none;
      -moz-user-select: none;
      -ms-user-select: none;
      user-select: none;
    }
  </style>
```

```

    @media (min-width: 768px) {
      .bd-placeholder-img-lg {
        font-size: 3.5rem;
      }
    }
  </style>

  <!-- Custom styles for this template -->

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

  <link href="/static/css/bootstrap.min.css" rel="stylesheet"
integrity="sha384-
ggOyR0iXCbMQv3Xipma34MD+dH/1fQ784/j6cY/iJTQUOhcWr7x9JvoRxT2MZw
1T" crossorigin="anonymous">

  <link href="\static\css\cover.css" rel="stylesheet">

</head>

<body class="text-center">

  <form class="form-signin">

    <h1 class="h3 mb-3 font-weight-normal"></h1>

    <label for="inputUsername" class="sr-only">User Name</label>

    <input type="uname" id="inputuname" class="form-control"
placeholder="User Name" required autofocus>

    <label for="inputRegnumber" class="sr-only">Register Number</label>

    <input type="regnumber" id="inputRegnumber" class="form-control"
placeholder="Register Number" required autofocus>

    <label for="inputEmail" class="sr-only">Email address</label>

    <input type="email" id="inputEmail" class="form-control" placeholder="Email
address" required autofocus>

```

```
<label for="inputPassword" class="sr-only">Password</label>

<input type="password" id="inputPassword" class="form-control"
placeholder="Password" required>

<div class="checkbox mb-3">

</div>

<br>

<br>

<button <a href="" class="btn btn-lg btn-primary btn-block"
type="submit">Sign in</button>

<br>

</p>

</main>

<footer class="mastfoot mt-auto">

<div class="inner">

<p><h4></h4></p>

</div>

</footer>

</div>

<script>

window.watsonAssistantChatOptions = {

  integrationID: "400013cb-9586-4129-a4b6-c11caad2df7e", // The ID of this
integration.

  region: "jp-tok", // The region your integration is hosted in.

  serviceInstanceID: "c3736947-abe7-48d9-ad2a-1064128a8039", // The ID of
your service instance.

  onLoad: function(instance) { instance.render(); }

};
```

```
setTimeout(function(){
    const t=document.createElement('script');
    t.src="https://web-chat.global.assistant.watson.appdomain.cloud/versions/"
+ (window.watsonAssistantChatOptions.clientVersion || 'latest') +
"/WatsonAssistantChatEntry.js";
    document.head.appendChild(t);
});
</script>
</body>
</html>
```

Index.html

```
<!doctype html>
<html lang="en">
  <head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1,
shrink-to-fit=no">
    <meta name="description" content="">
    <meta name="author" content="Mark Otto, Jacob Thornton, and Bootstrap
contributors">
    <meta name="generator" content="Jekyll v3.8.5">
    <title>Signin</title>
    <!-- Bootstrap core CSS -->
    <link href="/static/css/bootstrap.min.css" rel="stylesheet" integrity="sha384-
ggOyR0iXCbMQv3Xipma34MD+dH/1fQ784/j6cY/iJTQUOhcWr7x9JvoRxT2MZw
1T" crossorigin="anonymous">
```

```
<style>
```

```
.bd-placeholder-img {  
  font-size: 1.125rem;  
  text-align: center;  
  -webkit-user-select: none;  
  -moz-user-select: none;  
  -ms-user-select: none;  
  user-select: none;  
}
```

```
@media (min-width: 768px) {  
  .bd-placeholder-img-lg {  
    font-size: 3.5rem;  
  }  
}
```

```
</style>
```

```
<!-- Custom styles for this template -->
```

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

```
<link href="/static/css/bootstrap.min.css" rel="stylesheet"  
integrity="sha384-  
ggOyR0iXCbMQv3Xipma34MD+dH/1fQ784/j6cY/iJTQUOhcWr7x9JvoRxT2MZw  
1T" crossorigin="anonymous">
```

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

```
</head>
```

```
<body class="text-center">
```

```
<form class="form-signin">
```

```
<h1 class="h3 mb-3 font-weight-normal">Please sign in</h1>

<label for="inputEmail" class="sr-only">Email address</label>

<input type="email" id="inputEmail" class="form-control" placeholder="Email
address" required autofocus>

<label for="inputPassword" class="sr-only">Password</label>

<input type="password" id="inputPassword" class="form-control"
placeholder="Password" required>

<div class="checkbox mb-3">

  <label>

    <input type="checkbox" value="remember-me"> Remember me

  </label>

</div>

<button <a href="" class="btn btn-lg btn-primary btn-block"
type="submit">Sign in</button>

<br>

<br>

<br>

<br>

<br>

<p class="lead">

  <a href="http://localhost:5000/home" class="btn btn-lg btn-
secondary">Back to Home</a>

</p>

</form>

</body>

</html>
```

Signup.html

```
<!doctype html>
<html lang="en">
  <head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1,
shrink-to-fit=no">
    <meta name="description" content="">
    <meta name="author" content="Mark Otto, Jacob Thornton, and Bootstrap
contributors">
    <meta name="generator" content="Jekyll v3.8.5">
    <title>Signup</title>
    <!-- Bootstrap core CSS -->
    <link href="/static/css/bootstrap.min.css" rel="stylesheet" integrity="sha384-
ggOyR0iXCbMQv3Xipma34MD+dH/1fQ784/j6cY/iJTQUOhcWr7x9JvoRxT2MZw
1T" crossorigin="anonymous">
    <style>
      .bd-placeholder-img {
        font-size: 1.125rem;
        text-align: middle;
        -webkit-user-select: none;
        -moz-user-select: none;
        -ms-user-select: none;
        user-select: none;
      }

      @media (min-width: 768px) {
```



```

        .bd-placeholder-img-lg {
            font-size: 3.5rem;
        }
    }
</style>

<!-- Custom styles for this template -->

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

<link href="/static/css/bootstrap.min.css" rel="stylesheet"
integrity="sha384-
ggOyR0iXCbMQv3Xipma34MD+dH/1fQ784/j6cY/iJTQUOhcWr7x9JvoRxT2MZw
1T" crossorigin="anonymous">

<link href="\static\css\cover.css" rel="stylesheet">

</head>

<body class="text-center">

    <form class="form-signin">

        <h1 class="h3 mb-3 font-weight-normal">Please Login</h1>

        <label for="inputEmail" class="sr-only">Email address</label>

        <input type="email" id="inputEmail" class="form-control" placeholder="Email
address" required autofocus>

        <label for="inputPassword" class="sr-only">Password</label>

        <input type="password" id="inputPassword" class="form-control"
placeholder="Password" required>

        <div class="checkbox mb-3">

            <label>

            </label>

        </div>

        <button <a href="" class="btn btn-lg btn-primary btn-block"
type="submit">Login</button>

```

```
<br>
<br>
<br>
<br>
<br>
<p class="lead">
  <a href="http://localhost:5000/home" class="btn btn-lg btn-
secondary">Back to Home</a>
</p>
</form>
</body>
</html>
```

welcome.html

```
<!doctype html>
<html lang="en">
  <head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1,
shrink-to-fit=no">
    <meta name="description" content="">
    <meta name="author" content="Mark Otto, Jacob Thornton, and Bootstrap
contributors">
    <meta name="generator" content="Jekyll v3.8.5">
    <title>Welcome..</title>
    <!-- Bootstrap core CSS -->
```

```
<link href="/static/css/bootstrap.min.css" rel="stylesheet"
integrity="sha384-
ggOyR0iXCbMQv3Xipma34MD+dH/1fQ784/j6cY/iJTQUOhcWr7x9JvoRxT2MZw
1T" crossorigin="anonymous">
```

```
<style>
```

```
.bd-placeholder-img {
  font-size: 1.125rem;
  text-align: middle;
  -webkit-user-select: none;
  -moz-user-select: none;
  -ms-user-select: none;
  user-select: none;
}
```

```
@media (min-width: 768px) {
```

```
.bd-placeholder-img-lg {
  font-size: 3.5rem;
}
```

```
}
```

```
</style>
```

```
<!-- Custom styles for this template -->
```

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

```
<link href="/static/css/bootstrap.min.css" rel="stylesheet"
integrity="sha384-
ggOyR0iXCbMQv3Xipma34MD+dH/1fQ784/j6cY/iJTQUOhcWr7x9JvoRxT2MZw
1T" crossorigin="anonymous">
```

```
<link href="\static\css\cover.css" rel="stylesheet">
```

```
</head>
```

```
<body>
```

```
<nav class="navbar navbar-expand-md navbar-dark bg-dark fixed-top">
  <a class="navbar-brand" href="#"></a>
  <button class="navbar-toggler" type="button" data-toggle="collapse" data-
target="#navbarsExampleDefault" aria-controls="navbarsExampleDefault"
aria-expanded="false" aria-label="Toggle navigation">
    <span class="navbar-toggler-icon"></span>
  </button>
  <div class="collapse navbar-collapse" id="navbarsExampleDefault">
    <ul class="navbar-nav mr-auto">
      <li class="nav-item active">
        </li>
      </div>
    </nav>
  <main role="main" class="container">
    <div class="starter-template">
      <h1>WELCOME SKILL / JOB RECOMMENDAR APPLICATION</h1>
    </div>
    <br><br>
    <br><br>
    <center>
      <p class="lead">
        <a href="http://localhost:5000/home" class="btn btn-lg btn-primary">Get
Started-></a>
      </p>
    </center></html>
```

welcomepage.html

```
<!doctype html>
<html lang="en">
  <head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1,
shrink-to-fit=no">
    <meta name="description" content="">
    <meta name="author" content="Mark Otto, Jacob Thornton, and Bootstrap
contributors">
    <meta name="generator" content="Jekyll v3.8.5">
    <title>Welcome Page.</title>
    <!-- Bootstrap core CSS -->
    <link href="/static/css/bootstrap.min.css" rel="stylesheet"
integrity="sha384-
ggOyR0iXCbMQv3Xipma34MD+dH/1fQ784/j6cY/iJTQUOhcWr7x9JvoRxT2MZw
1T" crossorigin="anonymous">
    <style>
      .bd-placeholder-img {
        font-size: 1.125rem;
        text-align: middle;
        -webkit-user-select: none;
        -moz-user-select: none;
        -ms-user-select: none;
        user-select: none;
      }
```

```

    @media (min-width: 768px) {
      .bd-placeholder-img-lg {
        font-size: 3.5rem;
      }
    }
  </style>

  <!-- Custom styles for this template -->

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

  <link href="/static/css/bootstrap.min.css" rel="stylesheet"
integrity="sha384-
ggOyR0iXCbMQv3Xipma34MD+dH/1fQ784/j6cY/iJTQUOhcWr7x9JvoRxT2MZw
1T" crossorigin="anonymous">

  <link href="\static\css\cover.css" rel="stylesheet">
</head>

<body>

  <nav class="navbar navbar-expand-md navbar-dark bg-dark fixed-top">

    <a class="navbar-brand" href="#"></a>

    <button class="navbar-toggler" type="button" data-toggle="collapse" data-
target="#navbarsExampleDefault" aria-controls="navbarsExampleDefault"
aria-expanded="false" aria-label="Toggle navigation">

      <span class="navbar-toggler-icon"></span>

    </button>

    <div class="collapse navbar-collapse" id="navbarsExampleDefault">

      <ul class="navbar-nav mr-auto">

        <li class="nav-item active">

          </li>

        </div>

      </nav>

```

```

<main role="main" class="container">
  <div class="starter-template">
    <h1>THE WELCOME SKILL /JOB RECOMMENDAR APPLICATION</h1>
  </div>
  <br><br>
  <br><br>
  <center>
    <p class="lead">
      <a href="http://localhost:5000/welcome" class="btn btn-lg btn-primary">GET
      BACK</a>
    </p>
  </center>
  <script>
    window.watsonAssistantChatOptions = {
      integrationID: "400013cb-9586-4129-a4b6-c11caad2df7e", // The ID of this
      integration.
      region: "jp-tok", // The region your integration is hosted in.
      serviceInstanceID: "c3736947-abe7-48d9-ad2a-1064128a8039", // The ID of
      your service instance.
      onLoad: function(instance) { instance.render(); }
    };
    setTimeout(function(){
      const t=document.createElement('script');
      t.src="https://web-chat.global.assistant.watson.appdomain.cloud/versions/"
+ (window.watsonAssistantChatOptions.clientVersion || 'latest') +
"/WatsonAssistantChatEntry.js";
      document.head.appendChild(t);
    });
  </script>

```

```
});
```

```
</script>
```

```
</html>
```



