

Team ID	PNT2022TMID31529
Project name	Skill/Job Recommender Application

app.py

```
import ibm_db
```

```
conn=ibm_db.connect("DATABASE=bludb;HOSTNAME=55fbc997-9266-4331-afdc3888b05e734c0.bs2io90l08kqb1od8lcg.databases.appdomain.cloud;PORT=31929;SECURITY=SSL;SSLServerCertificate=DigiCertGlobalRootCA(1).crt;UID=skv86739;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>
<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;
}

@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="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 autofocus>
<input type="checkbox" class="checkbox" checked=""> Remember me
<input type="submit" value="Sign in" class="btn btn-lg btn-primary btn-block" />
</form>
</body>
</html>

```

```
<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/iJTQUOhcWr7x9JvoRxT2MZw1T" 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;
```

```

}
@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>

    <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/iJTQUOhcWr7x9JvoRxT2MZw1T" crossorigin="anonymous">

<style>

.bd-placeholder-img {

font-size: 1.125rem;

text-anchor: 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 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-anchor: 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 type="submit" class="btn btn-lg btn-primary btn-block">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

</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>

</html>



