Project Name	Smart Fashion Recommender Application
Team ID	PNT2022TMID22126

Create a Flask App

Solution:

```python
import os
from    flask_migrate import Migrate
from    flask_minify  import Minify
from    sys import exit

from apps.config import config_dict
from apps import create_app, db

# WARNING: Don't run with debug turned on in production!
DEBUG = (os.getenv('DEBUG', 'False') == 'True')

# The configuration
get_config_mode = 'Debug' if DEBUG else 'Production'

try:

    # Load the configuration using the default values
    app_config = config_dict[get_config_mode.capitalize()]

except KeyError:
    exit('Error: Invalid <config_mode>. Expected values [Debug, Production] ')

app = create_app(app_config)
Migrate(app, db)

if not DEBUG:
    Minify(app=app, html=True, js=False, cssless=False)

if DEBUG:
    app.logger.info('DEBUG            = ' + str(DEBUG)               )
    app.logger.info('Page Compression = ' + 'FALSE' if DEBUG else 'TRUE' )
    app.logger.info('DBMS             = ' +
app_config.SQLALCHEMY_DATABASE_URI)
    app.logger.info('ASSETS_ROOT      = ' + app_config.ASSETS_ROOT )

if __name__ == "__main__":
    app.run()
```

```python
from apps.home import blueprint
from flask import render_template, request
from flask_login import login_required
from jinja2 import TemplateNotFound
import pandas as pd
import numpy as np
from ftfy import fix_text
from nltk.corpus import stopwords
from sklearn.metrics.pairwise import cosine_similarity
from sklearn.feature_extraction.text import TfidfVectorizer
from sklearn.neighbors import NearestNeighbors
import re


@blueprint.route('/index')
@login_required
def index():
    with open('/job_final.csv',encoding="utf-8") as f:
        df1 = pd.read_csv(f)
        df1.to_string()
        df2 = df1.sample(25)
        df3 = df2.to_dict('index')
        print(df3)
        print(type(df3))

    return render_template('home/index.html', product = df3, segment='index')

# @blueprint.route('/search',methods=['GET','POST'])
# def recommender():
#     with open('G:\\Flask-Fashion-Recommender\\flask-pixel\\myntra-database.csv') as f1:
#         stopw  = set(stopwords.words('english'))
#         df11 = pd.read_csv(f1)
#         df11['test']=df11['gender','category','type','brand','description'].apply(lambda x: ' '.join([word for word in str(x).split() if len(word)>2 and word not in (stopw)]))

#         def ngrams(string, n=3):
#             string = fix_text(string) # fix text
#             string = string.encode("ascii", errors="ignore").decode() #remove non ascii chars
#             string = string.lower()
#             chars_to_remove = [")","(",".","|","[","]","{","}","'"]
#             rx = '[' + re.escape(''.join(chars_to_remove)) + ']'
#             string = re.sub(rx, '', string)
#             string = string.replace('&', 'and')
#             string = string.replace(',', ' ')
#             string = string.replace('-', ' ')
#             string = string.title() # normalise case - capital at start of each word
#             string = re.sub(' +',' ',string).strip() # get rid of multiple spaces and replace with a single
```

```python
#            string = ' '+ string +' ' # pad names for ngrams...
#            string = re.sub(r'[,-./]|\sBD',r'', string)
#            ngrams = zip(*[string[i:] for i in range(n)])
#            return [''.join(ngram) for ngram in ngrams]


#        vectorizer = TfidfVectorizer(min_df=1, analyzer=ngrams, lowercase=False)
#        tfidf = vectorizer.fit_transform(org_name_clean)



#        def getNearestN(query):
#            queryTFIDF_ = vectorizer.transform(query)
#            distances, indices = nbrs.kneighbors(queryTFIDF_)
#            return distances, indices

#        nbrs = NearestNeighbors(n_neighbors=1, n_jobs=-1).fit(tfidf)
#        unique_org = (df11['test'].values)
#        distances, indices = getNearestN(unique_org)
#        unique_org = list(unique_org)
#        matches = []
#        for i,j in enumerate(indices):
#            dist=round(distances[i][0],2)

#            temp = [dist]
#            matches.append(temp)
#        matches = pd.DataFrame(matches, columns=['Match confidence'])
#        df11['match']=matches['Match confidence']
#        df111=df11.sort_values('match')
#        df22=df111[['Product_url',
'image_url','type','category','description','brand']].head(30).reset_index()
#    return render_template('includes/card-each.html', sproduct = df22,
segment='index')


@blueprint.route('/<template>')
@login_required
def route_template(template):

    try:

        if not template.endswith('.html'):
            template += '.html'

        # Detect the current page
        segment = get_segment(request)

        # Serve the file (if exists) from app/templates/home/FILE.html
        return render_template("home/" + template, segment=segment)

    except TemplateNotFound:
        return render_template('home/page-404.html'), 404
```

```python
    except:
        return render_template('home/page-500.html'), 500


# Helper - Extract current page name from request
def get_segment(request):

    try:

        segment = request.path.split('/')[-1]

        if segment == '':
            segment = 'index'

        return segment

    except:
        return None
```

Add the Home page, About Page

Solution:

Home Page:

```html
{% extends 'layouts/base-presentation.html' %}

{% block title %} Presentation {% endblock title %}

<!-- Specific CSS goes HERE -->
{% block stylesheets %}{% endblock stylesheets %}

{% block body_class %} index-page {% endblock body_class %}

{% block content %}

  <header class="header-2">
    <div class="page-header section-height-75 relative" style="background-image: url('/static/assets/img/curved-images/curved.jpg')">
      <div class="container">
        <div class="row">
          <div class="col-lg-7 text-center mx-auto">
            <h1 class="text-white pt-3 mt-n5">
              <a class="text-white" target="_blank"
                href="">Job Recommender</a>
            </h1>
            <p class="lead text-white mt-3">
```

```html
                recommends using closest near neighbours
                <br />
                <a class="text-white" target="_blank" href=""
target="_blank"></a>.
              </p>
            </div>
          </div>
        <div class="position-absolute w-100 z-index-1 bottom-0">
          <svg class="waves" xmlns="http://www.w3.org/2000/svg"
xmlns:xlink="http://www.w3.org/1999/xlink" viewBox="0 24 150 40"
preserveAspectRatio="none" shape-rendering="auto">
            <defs>
              <path id="gentle-wave" d="M-160 44c30 0 58-18 88-18s 58 18 88 18
58-18 88-18 58 18 88 18 v44h-352z" />
            </defs>
            <g class="moving-waves">
              <use xlink:href="#gentle-wave" x="48" y="-1"
fill="rgba(255,255,255,0.40" />
              <use xlink:href="#gentle-wave" x="48" y="3"
fill="rgba(255,255,255,0.35)" />
              <use xlink:href="#gentle-wave" x="48" y="5"
fill="rgba(255,255,255,0.25)" />
              <use xlink:href="#gentle-wave" x="48" y="8"
fill="rgba(255,255,255,0.20)" />
              <use xlink:href="#gentle-wave" x="48" y="13"
fill="rgba(255,255,255,0.15)" />
              <use xlink:href="#gentle-wave" x="48" y="16"
fill="rgba(255,255,255,0.95)" />
            </g>
          </svg>
        </div>
      </div>
    </header>

    <script>
      window.watsonAssistantChatOptions = {
        integrationID: "0bb96b92-4e98-44c7-9dab-3a5fe2ff8562", // The ID of this
integration.
        region: "au-syd", // The region your integration is hosted in.
        serviceInstanceID: "e5babddc-2ad5-4eac-a0c5-6dad126622cb", // 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>

    {% for items in product %}

    <section class="my-5 py-5">
        <div class="container">
            <div class="row align-items-center">
                <div class="col-lg-4 ms-auto me-auto p-lg-4 mt-lg-0 mt-4">
                    <div class="card card-background " data-tilt>
                        <div class="full-background" style="background-image:
url('https://images.unsplash.com/photo-1567095761054-7a02e69e5c43?ixlib=rb-
4.0.3&ixid=MnwxMjA3fDB8MHxwaG90by1wYWdlfHx8fGVufDB8fHx8&auto=format&fit=crop&w
=687&q=80')"></div>
                        <div class="card-body pt-7 text-center">
                            <h2 class="text-white up mb-0">{{product[items].Position}} <br
/> {{product[items].Company}} <br> {{product[items].location}}</h2>
                            <a href="{{product[items].url}}" class="btn btn-outline-white
mt-5 up btn-round">Apply</a>
                        </div>
                    </div>
                </div>
            </div>
        </div>
    </section>

    {% endfor%}

{% endblock content %}

<!-- Specific JS goes HERE -->
{% block javascripts %}

    <script src="/static/assets/js/plugins/countup.min.js"></script>
    <script src="/static/assets/js/plugins/choices.min.js"></script>
    <script src="/static/assets/js/plugins/rellax.min.js"></script>
    <script src="/static/assets/js/plugins/tilt.min.js"></script>
    <script src="/static/assets/js/plugins/choices.min.js"></script>

    <script
src="https://maps.googleapis.com/maps/api/js?key=AIzaSyDTTfWur0PDbZWPr7Pmq8K3j
iDp0_xUziI"></script>
    <script src="/static/assets/js/soft-design-system.min.js?v=1.0.1"
type="text/javascript"></script>
    <script type="text/javascript">
        if (document.getElementById('state1')) {
            const countUp = new CountUp('state1',
document.getElementById("state1").getAttribute("countTo"));
            if (!countUp.error) {
                countUp.start();
            } else {
```

```javascript
            console.error(countUp.error);
        }
    }
    if (document.getElementById('state2')) {
        const countUp1 = new CountUp('state2',
document.getElementById("state2").getAttribute("countTo"));
        if (!countUp1.error) {
            countUp1.start();
        } else {
            console.error(countUp1.error);
        }
    }
    if (document.getElementById('state3')) {
        const countUp2 = new CountUp('state3',
document.getElementById("state3").getAttribute("countTo"));
        if (!countUp2.error) {
            countUp2.start();
        } else {
            console.error(countUp2.error);
        };
    }
  </script>

{% endblock javascripts %}
```

navigation page :

```html
  <div class="container position-sticky z-index-sticky top-0">
    <div class="row">
      <div class="col-12">
        <nav class="navbar navbar-expand-lg  blur blur-rounded top-0 z-index-
fixed shadow position-absolute my-3 py-2 start-0 end-0 mx-4">
          <div class="container-fluid">
            <a class="navbar-brand font-weight-bolder ms-sm-3"
                href="/" rel="tooltip" title="Designed and Coded by Creative
Tim" data-placement="bottom">
              SMART FASHION RECOMMENDER
            </a>
            <button class="navbar-toggler shadow-none ms-2" type="button"
data-bs-toggle="collapse" data-bs-target="#navigation" aria-
controls="navigation" aria-expanded="false" aria-label="Toggle navigation">
              <span class="navbar-toggler-icon mt-2">
                <span class="navbar-toggler-bar bar1"></span>
                <span class="navbar-toggler-bar bar2"></span>
                <span class="navbar-toggler-bar bar3"></span>
              </span>
            </button>
            <div class="collapse navbar-collapse pt-3 pb-2 py-lg-0"
id="navigation">
```

```
                <ul class="navbar-nav navbar-nav-hover ms-lg-12 ps-lg-5 w-100">
                    <li class="nav-item ms-auto ms-1 g-auto justify-space-between
py-2">
                        <form action="" method="GET">
                          <div class="col-lg-30 mx-auto">
                            <input type="text" placeholder="Search" name = "q"
value="{{request.args.get('q','')}}"class="form-control" >
                          </div>
                        </form>
                    </li>
                    <li class="nav-item my-auto ms-3 ms-lg-0">
                        <a href="{{ url_for('authentication_blueprint.logout') }}"
                           target="_blank"
                           class="btn btn-sm  bg-gradient-primary btn-round mb-0 me-
1 mt-2 mt-md-0">log out</a>
                    </li>
                </ul>
             </div>
           </div>
         </nav>
         <!-- End Navbar -->
      </div>
    </div>
  </div>
```

Add the Bootstrap

```
1  <!-- Connect Bootstrap -->
2  <link
3    href="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/css/bootstrap.min.css"
4    rel="stylesheet"
5  />
```

Add the Sign in page and App the Signup Page + database connectivity

Solution:

Sign in page:

```
{% extends 'layouts/base-fullscreen.html' %}

{% block title %} Sign IN {% endblock title %}

<!-- Specific CSS goes HERE -->
{% block stylesheets %}{% endblock stylesheets %}

{% block body_class %} sign-in-illustration {% endblock body_class %}

{% block content %}

  {% include "includes/navigation-auth.html" %}

  <section>
    <div class="page-header section-height-100">
      <div class="container">
        <div class="row">
          <div class="col-xl-4 col-lg-5 col-md-7 d-flex flex-column mx-lg-0
mx-auto">
            <div class="card card-plain">
              <div class="card-header pb-0 text-left">
                <h4 class="font-weight-bolder">Sign In</h4>
                <p class="mb-0">
                  {% if msg %}
                      {{ msg | safe }}
                  {% else %}
                      Add your credentials
                  {% endif %}
                </p>
              </div>
              <div class="card-body">

                <form method="post" action="" role="form">

                  {{ form.hidden_tag() }}

                  <div class="mb-3">
                    {{ form.username(class="form-control form-control-lg",
placeholder="Username") }}
                  </div>
                  <div class="mb-3">
                    {{ form.password(class="form-control form-control-lg",
placeholder="Password", type="password") }}
                  </div>
                  <div class="form-check form-switch">
                    <input class="form-check-input" type="checkbox"
id="rememberMe">
                    <label class="form-check-label" for="rememberMe">Remember
me</label>
                  </div>
                  <div class="text-center">
```

```html
                    <button type="submit" name="login"
                            class="btn btn-lg bg-gradient-primary btn-lg w-100
mt-4 mb-0">Sign in</button>
                    </div>
                </form>
            </div>
            <div class="card-footer text-center pt-0 px-lg-2 px-1">
                <p class="mb-4 text-sm mx-auto">
                    Don't have an account?
                    <a href="{{ url_for('authentication_blueprint.register') }}"
class="text-primary text-gradient font-weight-bold">Sign UP</a>
                </p>
            </div>
        </div>
    </div>
    <div class="col-6 d-lg-flex d-none h-100 my-auto pe-0 position-
absolute top-0 end-0 text-center justify-content-center flex-column">
        <div class="position-relative bg-gradient-primary h-100 m-3 px-7
border-radius-lg d-flex flex-column justify-content-center">
            <img src="/static/assets/img/shapes/pattern-lines.svg"
alt="pattern-lines" class="position-absolute opacity-4 start-0">
            <div class="position-relative">
                <img class="max-width-500 w-100 position-relative z-index-2"
src="/static/assets/img/illustrations/chat.png">
            </div>
            <h4 class="mt-5 text-white font-weight-bolder">
                SMART FASHION RECOMMENDER
            </h4>
            <p class="text-white">
                &copy; <a target="_blank" class="text-white"
href="https://bit.ly/3fKQZaL" target="_blank">Vel Tech High Tech</a>
                - Coded by <a class="text-white" target="_blank"
href="https://appseed.us" target="_blank">Haritha, Niranjana, Krishika,
Juneha</a>.
            </p>
        </div>
    </div>
    </div>
    </div>
    </section>

{% endblock content %}

<!-- Specific JS goes HERE -->
{% block javascripts %}

    <script src="/static/assets/js/soft-design-system.min.js?v=1.0.1"
type="text/javascript"></script>

{% endblock javascripts %}
```

Sign up Page:

```
{% extends 'layouts/base-fullscreen.html' %}

{% block title %} Sign UP {% endblock title %}

<!-- Specific CSS goes HERE -->
{% block stylesheets %}{% endblock stylesheets %}

{% block body_class %} sign-in-illustration {% endblock body_class %}

{% block content %}

  {% include "includes/navigation-auth.html" %}

  <section>
    <div class="page-header section-height-100">
      <div class="container">
        <div class="row">
          <div class="col-xl-4 col-lg-5 col-md-7 d-flex flex-column mx-lg-0
mx-auto">
            <div class="card card-plain">
              <div class="card-header pb-0 text-left">
                <h4 class="font-weight-bolder">Sign UP</h4>
                <p class="mb-0">
                  {% if msg %}
                      {{ msg | safe }}
                  {% else %}
                      Add your credentials
                  {% endif %}
                </p>
              </div>
              <div class="card-body">
                <form method="post" action="" role="form">

                  {{ form.hidden_tag() }}

                  <div class="mb-3">
                    {{ form.username(class="form-control form-control-lg",
placeholder="Username") }}
                  </div>
                  <div class="mb-3">
                    {{ form.email(class="form-control form-control-lg",
placeholder="Email", type="email") }}
                  </div>
                  <div class="mb-3">
                    {{ form.password(class="form-control form-control-lg",
placeholder="Password", type="password") }}
                  </div>
```

```html
                    <div class="form-check form-switch">
                        <input class="form-check-input" type="checkbox"
id="rememberMe">
                        <label class="form-check-label" for="rememberMe">
                            Agree with <a href="#">terms</a>
                        </label>
                    </div>
                    <div class="text-center">
                        <button type="submit" name="register"
                                class="btn btn-lg bg-gradient-primary btn-lg w-100
mt-4 mb-0">Register</button>
                    </div>
                </form>
            </div>
            <div class="card-footer text-center pt-0 px-lg-2 px-1">
                <p class="mb-4 text-sm mx-auto">
                    Have an account?
                    <a href="{{ url_for('authentication_blueprint.login') }}"
class="text-primary text-gradient font-weight-bold">Sign IN</a>
                </p>
            </div>
        </div>
    </div>
    <div class="col-6 d-lg-flex d-none h-100 my-auto pe-0 position-
absolute top-0 end-0 text-center justify-content-center flex-column">
        <div class="position-relative bg-gradient-primary h-100 m-3 px-7
border-radius-lg d-flex flex-column justify-content-center">
            <img src="/static/assets/img/shapes/pattern-lines.svg"
alt="pattern-lines" class="position-absolute opacity-4 start-0">
            <div class="position-relative">
                <img class="max-width-500 w-100 position-relative z-index-2"
src="/static/assets/img/illustrations/chat.png">
            </div>
            <h4 class="mt-5 text-white font-weight-bolder">
                SMART FASHION RECOMMENDER
            </h4>
            <p class="text-white">
                &copy; <a target="_blank" class="text-white"
href="https://bit.ly/3fKQZaL" target="_blank">QBIT STUDIOS</a>
                - Coded by <a class="text-white" target="_blank"
href="https://appseed.us" target="_blank">PKMALLIA</a>.
            </p>
        </div>
    </div>
    </div>
    </div>
    </div>
</section>

{% endblock content %}
```

```html
<!-- Specific JS goes HERE -->
{% block javascripts %}

  <script src="/static/assets/js/soft-design-system.min.js?v=1.0.1"
type="text/javascript"></script>

{% endblock javascripts %}
```