SMART FASHION RECOMMENDER APPLICATION A PROJECT REPORT

Submitted by

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1. INTRODUCTION

1.1 Project Overview

The increasing popularity of online fashion and online retail platforms is having a visible impact on the shopping experience of billions of customers, making millions of products available in online catalogs thus eliminating the need for physical visits to various stores and for waiting in long queues or trying on clothes in dressing rooms by providing personalized and affordable deliveries.

This in turn has created novel challenges for platform providers, within which proper understanding of fashion choices of shoppers plays a crucial role.

Shoppers tend to feel overwhelmed by the sheer choice of the assortment and brands, not being able to receive effective suggestions matching their style preferences as well as not being able to spot the right size and fit during the shopping experience.

As a result, recommender systems are gaining momentum by mining through large and diverse silos of product catalogs as well as customer datasets in order to provide personalized recommendations of outfits, complimenting the shopping session with similar and relevant products, understanding and suggesting the correct size and fit for shoppers, recommending with personalized styles and leveraging the social influence affecting the choice of style and buying behavior of new generations of shoppers. To this end, within this chapter we aim to present a state of the art view of the advancements within the field of recommendation systems in the domain of fashion. In this project We have come up with a new innovative solution through which you can directly do your online shopping based on your choice without any search. It can be done by using the chatbot.

1.2 Purpose

- a) Using chatbot we can manage user's choices and orders.
- b) The chatbot can give recommendations to the users based on their interests.
- c) It can promote the best deals and offers on that day.
- d) It will store the customer's details and orders in the database.
- e) The chatbot will send a notification to customers if the order is confirmed.
- f) Chatbots can also help in collecting customer feedback.

2.LITERATURE SURVEY

2.1 Existing Problem

Customers buy products and order them, If they want to know further details, while they cant find them in websites, They keep step backward to buy their desired product. If the has any queries in the product or how to process to get the product, they wait for the seller to explain it. Although using chatbots may provide faster customer service overall, they aren't perfect. Simple ones may have only limited responses for customers. Therefore, not all customers will get the answers they are searching for.

Only 34% of respondents stated they would be comfortable using chatbots in an online retail situation. Most customers don't want chatbots.

Chatbots were created to respond to simple questions that can be answered with facts. Chatbots have limited responses, so they're not often able to answer multi-part questions or questions that require decisions. This often means your customers are left without a solution, and have to go through more steps to contact your support team.

2.2 References

- [1] E. Turban, D. King, J. Lee, and D. Viehland, Electronic Commerce: A Managerial Perspective. Upper Saddle River, NJ, USA: Prentice-Hall, 2002. [2] R. T. Wigand, 'Electronic commerce: Definition, theory, and context,' Inf. Soc., vol. 13, no. 1, pp. 1–16, Mar. 1997.
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- [8] N. J. Navimipour, A. M. Rahmani, A. H. Navin, and M. Hosseinzadeh, 'Expert cloud: A cloud-based framework to share the knowledge and skills of human resources,' Comput. Hum. Behav., vol. 46, pp. 57–74, May 2015. [9] S. Hazratzadeh and N. J. Navimipour, 'Colleague recommender system in the expert cloud using features matrix,' Kybernetes, vol. 45, no. 9, pp. 1342–1357, Oct. 2016.

2.3 Problem Statement Definition

Problem Statement 1:

The User Needs a way to Find Trending Fashion Clothes so that Here find the All Collections.

Problem Statement 2:

The User Needs a way to Find Offers and Discounts so that Here User easy to find Daily Offers.

Problem Statement 3:

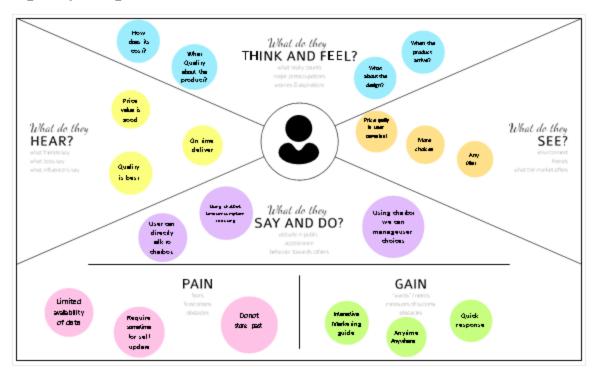
The User Needs a way to Assistant for finding Clothes so that Here User got the Chat Bot assistant.

Problem Statement 4:

The Sellers Needs a way to struggling to sells products offline so that Here Sellers will Sell Products via our application.

3. IDEATION & PROPOSED SOLUTION

3.1 Empathy Map Canvas



3.2 Ideation & Brainstorming



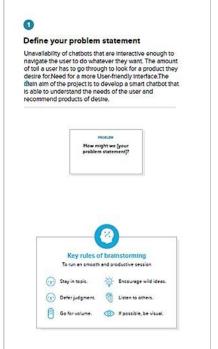
SMART FASHION RECOMMNDER APPLICATION

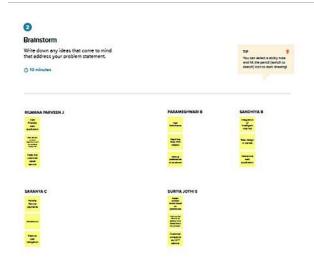
Fashion applications have seen tremendous growth and are now one of the most used programs in the e-commerce field. The needs of people are continuously evolving, creating a room for innovation among the applications. Having an AI program that understands the algorithm of a specific application can be of great aid. We are implementing such a chatbot, Which is fed with the knowledge of the application's algorithm and helps the user completely from finding their needs to processing the payment and initiating delivery.

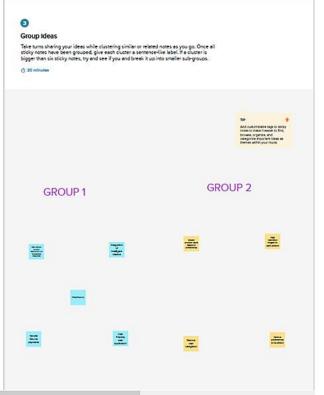


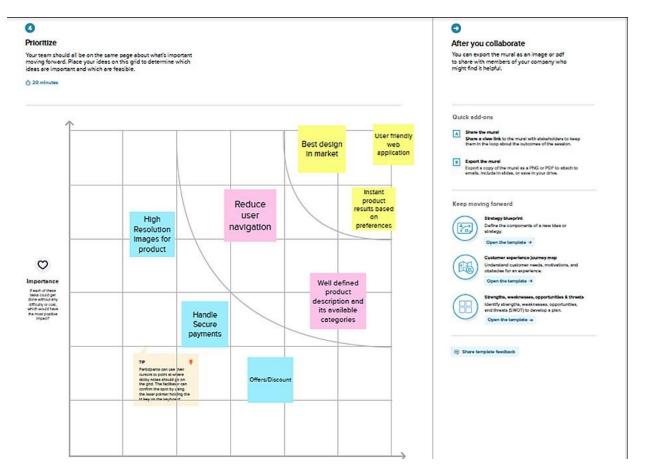
- Team gathering
 Define who should participate in the session and send an invite. Share relevant information or pre-work sheed.
- Set the goal
 Think about the problem you'll be focusing on solving in the brainstorming session.
- Use the Facilitation tools
 Use the Facilitation Superpowers to run a happy and productive session.

Open article -+









3.3 Proposed Solution

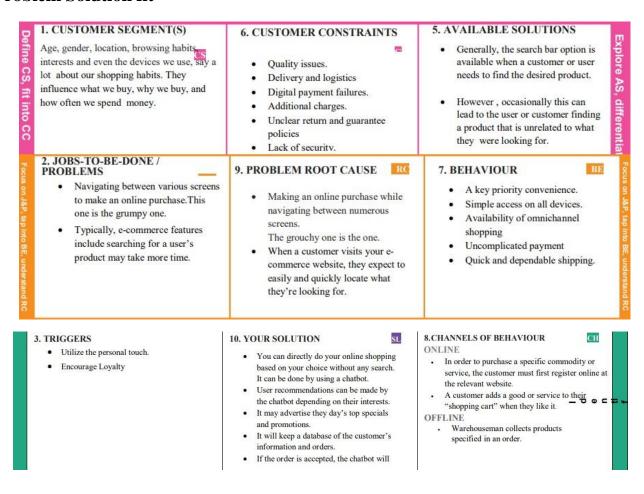
| S.No. | Parameter | Description |
|-------|----------------------------|--------------------------------------|
| 1. | Problem Statement (Problem | A new innovative solution through |
| | to be solved) | which users can directly do online |
| | | shopping based on the choice without |

| | | any search. | | |
|----|-----------------------------|---|--|--|
| | | It can be done using a chatbot. | | |
| | | Modules Used: | | |
| | | 1. Admin | | |
| | | The role of the admin is to check out the | | |
| | | database about the stock and have a | | |
| | | track of all the things that the user are | | |
| | | purchasing. | | |
| | | 1. User | | |
| | | The user will login into the website and | | |
| | | go through the products available on the | | |
| | | website .Instead of navigating to several | | |
| | | screens for booking products online, The | | |
| | | user can directly talk to the chatbot | | |
| | | regarding the product | | |
| | | | | |
| | | | | |
| | | | | |
| 2. | Idea / Solution description | The idea mainly focus on the designing | | |
| | | the chatbot using AI algorithms like | | |
| | | NLP(Natural Language Processing) | | |
| | | which makes the user friendly | | |
| | | environment instead of searching the | | |
| | | product.The Chatbot gives | | |
| | | recommendation of the user's product | | |
| | <u> </u> | 1 | | |

| | | and suggests available offers of the product. The introduction of chatbot makes an interactive website and boosts the productivity of the product. |
|----|---------------------------------------|---|
| 3. | Novelty / Uniqueness | Many online shopping application is mainly based on the search engine while this project make use of interactive chatbot like alexa, siri etc |
| 4. | Social Impact / Customer Satisfaction | This project uses chatbots that converse with the users and ask questions that encourage them to make a purchase. If a customer is searching for a product, they need not leave the website to know more about it. Chatbots pop up and deliver the information to the users effortlessly. |
| 5. | Business Model (Revenue Model) | There are many systesm available in the recommendation systems.Our Project will focus on improving customer |

| | | experience in online shopping by | | | |
|----|-----------------------------|---|--|--|--|
| | | embedding an interactive chatbot in it | | | |
| | | which will improve the productivity and | | | |
| | | boosts the economy | | | |
| | | | | | |
| 6. | Scalability of the Solution | Our project solution is platform | | | |
| | | independent.In future various machine | | | |
| | | learning algorithms can be applied on | | | |
| | | the chatbot and UI interfaces of webapp | | | |
| | | can be developed and modified. | | | |
| | | | | | |

3.4 Problem Solution fit



| 4. EMOTIONS: BEFORE / AFTER | notify the customer. | |
|---|----------------------|--|
| BEFORE | | |
| The search bar option is available when a | | |
| customer or user needs to find the desired product. | | |
| | | |
| AFTER | | |
| Chatbot is like talking to a human which may | | |
| make it easier for people to find the product. | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

4. REQUIREMENT ANALYSIS

4.1 Functional requirement

| FR No. | Functional Requirement (Epic) | Sub Requirement (Story / Sub- Task) | | |
|--------|-------------------------------|--|--|--|
| FR-1 | User Registration / Sign up | Registration through Form Registration through Gmail Registration through LinkedIN | | |
| FR-2 | User Verification | Confirmation via Email Confirmation via OTP | | |
| FR-3 | Sign In / Login | Login by using Mobile Number or Email | | |
| FR-4 | Profile Details | Update the Information about Customer Example:- Name Gender Age Mobile number Address | | |
| FR-5 | Chatbot (Watson Assistant) | Get the Information about Search Products View Offers Discounts | | |

| | | Stock Availability |
|-------|------------------------------|---------------------------------|
| | | User Personal Information |
| | | (FR-4) |
| | | (I K 4) |
| FR-6 | Advance Search Capabilities | Sorting and filtering options |
| | - | |
| FR-7 | Shopping Cart | My Cart Button Add-To-Cart- |
| | | Button Remove-From-Cart- |
| | | Button |
| | | |
| FR-8 | Checking Item Availability | Item Availability in rural and |
| | Ç | urban Locations |
| | | |
| FR-9 | Checking The Shipping Status | Easily Checking Status |
| | / Tracking The Order Product | availability of ordered Items |
| | , | |
| FR-10 | Logout | After the Purchase, user can |
| | | Logout Or close the application |
| | | When customer needs |
| | | |

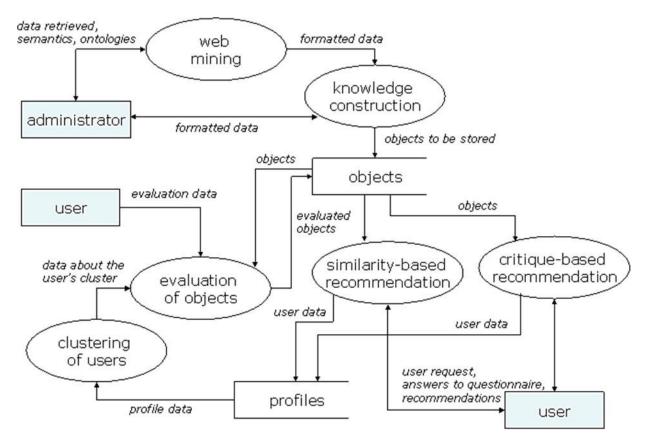
4.2 Non-Functional requirements

| NFR No. | Non-Functional Requirement (Epic) | Description |
|---------|-----------------------------------|---|
| NFR-1 | usability | The application will be designed for making Good HUMAN – COMPUTER Interaction in such a way, Any user can easily navigate User Can easily View and understandable Comfort while making Place order Comfort with tracking facilities Easy and Compact design These all are about to achieve a defined goal Effectively, Efficiently and Satisfactorily. |
| NFR-2 | Security | The application will be Using of "Secure Socket Layer" (SSL) Certificate will provide a More |
| | | security of the Project and This |

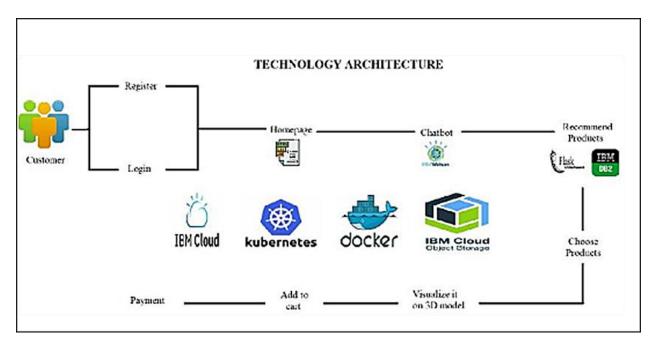
| | | process will happen while Python |
|-------|--------------|-------------------------------------|
| | | Flask to Cloud Connect. This |
| | | makes user private Information |
| | | like Baking, Shipping/Home |
| | | address, email, Phone number etc., |
| | | will be kept as more secure. |
| NFR-3 | Reliability | Ability of software to perform |
| | | critical tasks like Collection and |
| | | Securing customer Data, Providing |
| | | Gateway Payment to function |
| | | correctly in a given Environment, |
| | | for a Particular amount of time. |
| NFR-4 | Performance | It Focus on the loading application |
| | | as quickly as possible irrespective |
| | | of the number of user traffic |
| NFR-5 | Availability | The Application will be Available |
| | - | to all users at any given point of |
| | | time. User can access the chatbot |
| | | for raising any queries. |
| NFR-6 | Scalability | Chatbot can be very useful to |
| | _ | know about offers and discounts. It |
| | | will be helpful whenever we make |
| | | online shopping |
| | | |

PROJECT DESIGN

5.1 Data Flow Diagrams



5.2 Solution & Technical Architecture



5.3 User Stories

| User Type | Functional Requireme nt (Epic) | User Story Number | User Story / Task | Accepta nce criteria | Priority | Release |
|-----------------------------------|--------------------------------|-------------------------|---|--------------------------------------|----------|----------|
| Custo mer (Mobi le user) | Registration | USN-1 | As a user, I can register for the application by entering my email, | I can access my account / dashboa rd | High | Sprint-1 |
| | | | password, | 1u | | |

| USN-2 | and confirming my password. As a user, I will receive confirmati on email once I have registered for the application | I can receive confirm ation email & click confirm | High | Sprint-1 |
|-------|---|---|------|----------|
| USN-3 | As a user, I | I can | Low | Sprint-2 |
| | can register for the | register &access | | |

| | | application | the | | |
|-----------|-------|--|--|--------|----------|
| | | through Facebook | dashboa rd with Gmail login | | |
| | USN-4 | As a user, I can register for the application through Gmail | I can register &access the dashboa rd with Gmail login | Medium | Sprint-1 |
| Login | USN-5 | As a user, I can log into the application by entering email & password | I can login into the applicati on with Gmail login | High | Sprint-1 |
| Dashboard | USN-5 | As a user ,I can log access the | I can access | High | Sprint-1 |

| dashboard | the | |
|----------------------|---------------|--|
| of | dashboa | |
| the | rd by | |
| application | logging | |
| by logging | into | |
| into the application | the applicati | |
| | | |

6. PROJECT PLANNING & SCHEDULING

6.1 Sprint Planning & Estimation

| MILESTONES | ACTIVITY | DESCRIPTION |
|--------------------------------|--|---|
| Project development phase | Delivery of Sprint-1,2, 3, 4 | To develop the code and submit the develop the code after completion of testing |
| Setting-up app environment | Create IBM cloud account | Sign up IBM cloud account |
| 0 1 11 | Create flask project | Getting started with the flask to create project |
| | Install IBM cloud CLI | Install IBM command line interface (CLI) |
| | Docker CLI installation | Installing docker CLI |
| | Create an account in sendgrid | Create an account in sendgrid Use service as e-mail integration to the application for sending emails |
| Implementing web application | Create UI to interact with the application | Create UI registration page login page view products page add products page |
| | Create IBM DB2 and connect with the Python | Create IBM DB2 in IBM cloud and link with the Python |
| Integrating sendgrid service | Sendgrid integration with the Python | To send emails from the application we need to integrate the sendgrid services |
| Developing a chat bot | Building a chat bot and integrate with the application | Build the chat bot and integrate it to the flask application |
| Deployment of app in IBM cloud | Containerise the app | Create a docker image of the application in addition to push it to the IBM container registry |
| | Upload image to IBM container registry | Upload the image to IBM container registry |
| | Deploy in in kubernetes cluster | Once the image is uploaded to IBM container registry deploy the image toward IBM kubernetes cluster |

| MILESTONES | ACTIVITY | DESCRIPTION |
|------------------------|------------------------------|--|
| Ideation phase | Literature survey | Literature survey on the selected project and information gathering |
| | Empathy map | Prepare empathy map to capture the user pains and gains, prepare a list of problem statement |
| | Ideation | Organising the brainstorming session and prioritise the top three ideas based on feasibility hand importance |
| Project design phase 1 | Proposed solution | Prepare proposed solution document which includes novelty, feasibility of ideas, business model, social impact, scalability of solution |
| | Problem solution fit | Prepare problem solution fit documents |
| | Solution architecture | Prepare solution architecture document |
| Project design phase 2 | Customer journey map | Prepare customer journey map to understand the user interactions and experience with the application |
| | Functional requirements | Prepare functional and non- functional necessity document |
| | Data flow diagram | Prepare data flow diagram and user stories |
| | Technology architecture | Draw technology architecture diagram |
| Project planning phase | Milestones and activity list | Prepare milestones and activity list of the project |
| | Sprint delivery plan | Prepare spring delivery plan |

6.2 Sprint Delivery Schedule

| Sprint | Functional Requirement (Epic) | User Story Number | User Story / Task Story points | | Priority | Team Members | |
|----------|----------------------------------|----------------------|--|---|----------|---|--|
| Sprint-1 | Setting up App environment | USN-1 | As a user, I can register in ICTA Academy and create IBM cloudaccount. | 2 | High | S.Parameshwari B.Sandhiya C.Saranya | |
| Sprint-1 | | USN-2 | As a user, I will create a flaskproject | 1 | Low | J.Rilwana Parveen S.Suriya Jothi | |
| Sprint-1 | | USN-3 | As a user, I will install IBM CloudCLI | 2 | Medium | S.Parameshwari B.Sandhiya C.Saranya | |
| Sprint-2 | Setting up App environment | USN-4 | As a user, I can install Docker CLI | 1 | Low | J.Rilwana Parveen S.Suriya Jothi | |
| Sprint-2 | | USN-5 | As a user, I will Create an accountin sendgrid | 2 | Medium | S.Parameshwari B.Sandhiya C.Saranya | |

| Sprint-3 | Implementing web application | USN-6 | As a user, I Create UI to interact with the application | 1 | High | J.Rilwana Parveen S.Suriya Jothi |
|----------|------------------------------------|--------|--|---|--------|--|
| Sprint-3 | 3 | USN-7 | As a user, I Create IBM DB2 and connect with Python | 3 | High | S.Parameshwari B.Sandhiya C.Saranya |
| Sprint-3 | Integrating sendgrid service | USN-8 | As a user, I will be integrating sendgridwith python code | 2 | High | J.Rilwana Parveen S.Suriya Jothi |
| Sprint-3 | Developing a chatbot | USN-9 | As a user, I must build a chatbot and integrate to application | 1 | Medium | S.Parameshwari B.Sandhiya C.Saranya |
| Sprint-4 | Development of App in IBM Cloud | USN-10 | As a user, I will Containerize the App | 1 | Low | J.Rilwana Parveer S.Suriya Jothi |
| Sprint-4 | | USN-11 | As a user, I will upload image to IBM Container registry | 2 | Medium | S.Parameshwari B.Sandhiya C.Saranya |
| Sprint-4 | 3 | USN-12 | As a user, I will deploy App in Kubernetes cluster | 3 | High | J.Rilwana Parveer S.Suriya Jothi |
| Sprint-4 | User panel | | As a user • Register, Login, Email, Verification • Manual Search • Order placement, Order Details | 3 | High | J.Rilwana Parveer S.Suriya Jothi S.Parameshwari B.Sandhiya C.Saranya |

Project Tracker, Velocity & Burndown Chart

Project Tracker, Velocity & Burndown Chart

| Sprint | Total Story Points | Duration | Sprint Start Date | Sprint End Date (Planned) | Story Points Completed (as on Planned End Date) | Sprint Release Date (Actual) |
|----------|-----------------------|----------|-------------------|------------------------------|--|---------------------------------|
| Sprint-1 | 18 | 6 Days | 24 Oct 2022 | 29 Oct 2022 | 24 | 29 Oct 2022 |
| Sprint-2 | 18 | 6 Days | 31 Oct 2022 | 05 Nov 2022 | 24 | 05 Nov 2022 |
| Sprint-3 | 18 | 6 Days | 07 Nov 2022 | 12 Nov 2022 | 24 | 12 Nov 2022 |
| Sprint-4 | 18 | 6 Days | 14 Nov 2022 | 19 Nov 2022 | 24 | 19 Nov 2022 |

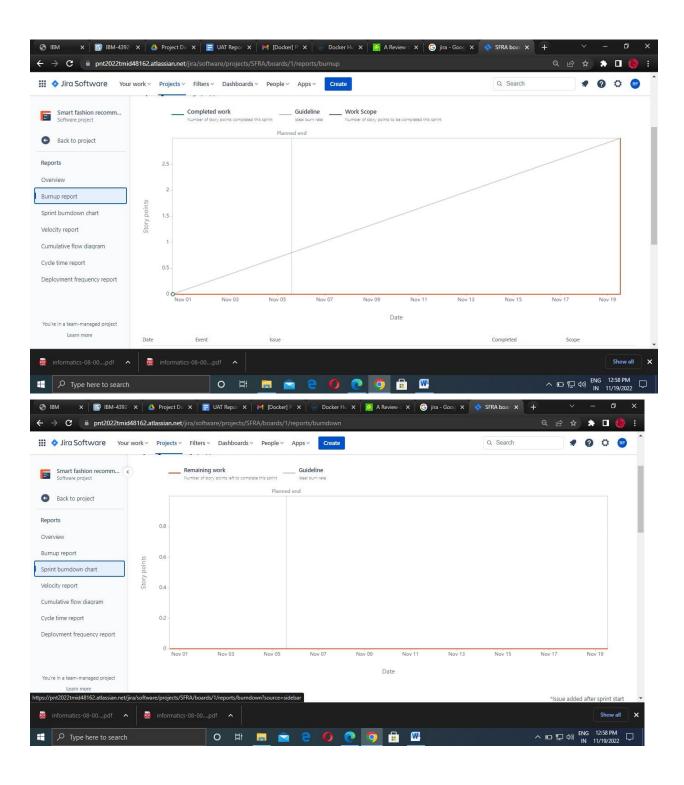
Velocity

Imagine we have a 6-day sprint duration, and the velocity of the team is 18(points per sprint). Let's calculate the team's average velocity (AV) per iteration unit (story points per day)

AV = Sprint Duration / Velocity

AV = 24/6 = 4

6.3 Reports from JIRA



7. CODING & SOLUTIONING

7.1 Feature 1

```
User can view the product on 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">
  <title>Smart Fashion Recommender Application</title>
  <link rel="stylesheet" href="static/css/home.css">
</head>
<body>
  <nav class="navbar">
  </nav>
  <!-- hero section -->
<header class="hero-section">
  <div class="content">
    <img src="static/img/light-logo.png" class="logo" alt="">
```

```
best fashion collection of all time
  </div>
</header>
<section class="product">
  <h2 class="product-category">best selling</h2>
  <button class="pre-btn"><img src="static/img/arrow.png" alt=""></button>
<button class="nxt-btn"><img src="static/img/arrow.png" alt=""></button>
  <div class="product-container">
    <div class="product-card">
      <div class="product-image">
         <span class="discount-tag">50% offer</span>
         <img src="static/img/card1.png" class="product-thumb" alt="">
         <button class="card-btn">add to whislist</button>
      </div>
      <div class="product-info">
         <h2 class="product-brand">brand</h2>
         a short line about the cloth.
        <span class="price">$20</span><span class="actual-price">$40</span>
      </div>
    </div>
    <div class="product-card">
      <div class="product-image">
         <span class="discount-tag">50% offer</span>
         <img src="static/img/card2.png" class="product-thumb" alt="">
         <button class="card-btn">add to whislist</button>
      </div>
      <div class="product-info">
         <h2 class="product-brand">brand</h2>
```

```
a short line about the cloth.
    <span class="price">$20</span><span class="actual-price">$40</span>
  </div>
</div>
<div class="product-card">
  <div class="product-image">
    <span class="discount-tag">50% offer</span>
    <img src="static/img/card3.png" class="product-thumb" alt="">
    <button class="card-btn">add to whislist</button>
  </div>
  <div class="product-info">
    <h2 class="product-brand">brand</h2>
    a short line about the cloth.
    <span class="price">$20</span><span class="actual-price">$40</span>
  </div>
</div>
<div class="product-card">
  <div class="product-image">
    <span class="discount-tag">50% offer</span>
    <img src="static/img/card4.png" class="product-thumb" alt="">
    <button class="card-btn">add to whislist</button>
  </div>
  <div class="product-info">
```

```
<h2 class="product-brand">brand</h2>
    a short line about the cloth.
    <span class="price">$20</span><span class="actual-price">$40</span>
  </div>
</div>
<div class="product-card">
  <div class="product-image">
    <span class="discount-tag">50% offer</span>
    <img src="static/img/card5.png" class="product-thumb" alt="">
    <button class="card-btn">add to whislist</button>
  </div>
  <div class="product-info">
    <h2 class="product-brand">brand</h2>
    a short line about the cloth.
    <span class="price">$20</span><span class="actual-price">$40</span>
  </div>
</div>
<div class="product-card">
  <div class="product-image">
    <span class="discount-tag">50% offer</span>
    <img src="static/img/card6.png" class="product-thumb" alt="">
    <button class="card-btn">add to whislist</button>
  </div>
  <div class="product-info">
    <h2 class="product-brand">brand</h2>
    a short line about the cloth.
    <span class="price">$20</span><span class="actual-price">$40</span>
  </div>
```

```
</div>
<div class="product-card">
  <div class="product-image">
    <span class="discount-tag">50% offer</span>
    <img src="static/img/card7.png" class="product-thumb" alt="">
    <button class="card-btn">add to whislist</button>
  </div>
  <div class="product-info">
    <h2 class="product-brand">brand</h2>
    a short line about the cloth.
    <span class="price">$20</span><span class="actual-price">$40</span>
  </div>
</div>
<div class="product-card">
  <div class="product-image">
    <span class="discount-tag">50% offer</span>
    <img src="static/img/card8.png" class="product-thumb" alt="">
    <button class="card-btn">add to whislist</button>
  </div>
  <div class="product-info">
    <h2 class="product-brand">brand</h2>
    a short line about the cloth.
    <span class="price">$20</span><span class="actual-price">$40</span>
```

```
</div>
    </div>
  </div>
</section>
<!-- collections -->
<section class="collection-container">
  <a href="#" class="collection">
    <img src="static/img/women-collection.png" alt="">
    women <br>> apparels
  </a>
  <a href="#" class="collection">
    <img src="static/img/men-collection.png" alt="">
    men <br>> apparels
  </a>
  <a href="#" class="collection">
    <img src="static/img/accessories-collection.png" alt="">
    accessories
  </a>
</section>
<section class="product">
  <h2 class="product-category">shirts</h2>
  <button class="pre-btn"><img src="static/img/arrow.png" alt=""></button>
<button class="nxt-btn"><img src="static/img/arrow.png" alt=""></button>
  <div class="product-container">
    <div class="product-card">
      <div class="product-image">
        <span class="discount-tag">50% offer</span>
        <img src="static/img/product image 1.png" class="product-thumb"</pre>
```

```
alt="">
        <button class="card-btn">add to whislist</button>
      </div>
      <div class="product-info">
        <h2 class="product-brand">brand</h2>
        a short line about the cloth.
        <span class="price">$20</span><span class="actual-price">$40</span>
      </div>
    </div>
    <div class="product-card">
      <div class="product-image">
        <span class="discount-tag">50% offer</span>
        <img src="static/img/product image 3.png" class="product-thumb"</pre>
alt="">
         <button class="card-btn">add to whislist</button>
      </div>
      <div class="product-info">
        <h2 class="product-brand">brand</h2>
        a short line about the cloth.
        <span class="price">$20</span><span class="actual-price">$40</span>
      </div>
    </div>
```

```
<div class="product-card">
      <div class="product-image">
        <span class="discount-tag">50% offer</span>
        <img src="static/img/product image 4.png" class="product-thumb"</pre>
alt="">
         <button class="card-btn">add to whislist</button>
      </div>
      <div class="product-info">
        <h2 class="product-brand">brand</h2>
        a short line about the cloth.
         <span class="price">$20</span><span class="actual-price">$40</span>
      </div>
    </div>
    <div class="product-card">
      <div class="product-image">
        <span class="discount-tag">50% offer</span>
        <img src="static/img/card2.png" class="product-thumb" alt="">
         <button class="card-btn">add to whislist</button>
      </div>
      <div class="product-info">
        <h2 class="product-brand">brand</h2>
        a short line about the cloth.
         <span class="price">$20</span><span class="actual-price">$40</span>
      </div>
    </div>
    <div class="product-card">
      <div class="product-image">
```

```
<span class="discount-tag">50% offer</span>
    <img src="static/img/card3.png" class="product-thumb" alt="">
    <button class="card-btn">add to whislist</button>
  </div>
  <div class="product-info">
    <h2 class="product-brand">brand</h2>
    a short line about the cloth.
    <span class="price">$20</span><span class="actual-price">$40</span>
  </div>
</div>
<div class="product-card">
  <div class="product-image">
    <span class="discount-tag">50% offer</span>
    <img src="static/img/card5.png" class="product-thumb" alt="">
    <button class="card-btn">add to whislist</button>
  </div>
  <div class="product-info">
    <h2 class="product-brand">brand</h2>
    a short line about the cloth.
    <span class="price">$20</span><span class="actual-price">$40</span>
  </div>
</div>
```

```
<div class="product-card">
  <div class="product-image">
    <span class="discount-tag">50% offer</span>
    <img src="static/img/card6.png" class="product-thumb" alt="">
    <button class="card-btn">add to whislist</button>
  </div>
  <div class="product-info">
    <h2 class="product-brand">brand</h2>
    a short line about the cloth.
    <span class="price">$20</span><span class="actual-price">$40</span>
  </div>
</div>
<div class="product-card">
  <div class="product-image">
    <span class="discount-tag">50% offer</span>
    <img src="static/img/card7.png" class="product-thumb" alt="">
    <button class="card-btn">add to whislist</button>
  </div>
  <div class="product-info">
    <h2 class="product-brand">brand</h2>
    a short line about the cloth.
    <span class="price">$20</span><span class="actual-price">$40</span>
  </div>
</div>
<div class="product-card">
  <div class="product-image">
    <span class="discount-tag">50% offer</span>
```

```
<img src="static/img/card8.png" class="product-thumb" alt="">
         <button class="card-btn">add to whislist</button>
      </div>
      <div class="product-info">
         <h2 class="product-brand">brand</h2>
         a short line about the cloth.
         <span class="price">$20</span><span class="actual-price">$40</span>
      </div>
    </div>
  </div>
</section>
<section class="product">
  <h2 class="product-category">shoes</h2>
  <button class="pre-btn"><img src="static/img/arrow.png" alt=""></button>
<button class="nxt-btn"><img src="static/img/arrow.png" alt=""></button>
  <div class="product-container">
    <div class="product-card">
      <div class="product-image">
         <span class="discount-tag">50% offer</span>
         <img src="static/img/card9.png" class="product-thumb" alt="">
         <button class="card-btn">add to whislist</button>
```

```
</div>
  <div class="product-info">
    <h2 class="product-brand">brand</h2>
    a short line about the cloth.
    <span class="price">$20</span><span class="actual-price">$40</span>
  </div>
</div>
<div class="product-card">
  <div class="product-image">
    <span class="discount-tag">50% offer</span>
    <img src="static/img/card10.png" class="product-thumb" alt="">
    <button class="card-btn">add to whislist</button>
  </div>
  <div class="product-info">
    <h2 class="product-brand">brand</h2>
    a short line about the cloth.
    <span class="price">$20</span><span class="actual-price">$40</span>
  </div>
</div>
<div class="product-card">
  <div class="product-image">
    <span class="discount-tag">50% offer</span>
    <img src="static/img/card11.png" class="product-thumb" alt="">
    <button class="card-btn">add to whislist</button>
  </div>
  <div class="product-info">
    <h2 class="product-brand">brand</h2>
    a short line about the cloth.
```

```
<span class="price">$20</span><span class="actual-price">$40</span>
       </div>
    </div>
    <div class="product-card">
       <div class="product-image">
         <span class="discount-tag">50% offer</span>
         <img src="static/img/card12.png" class="product-thumb" alt="">
         <button class="card-btn">add to whislist</button>
       </div>
       <div class="product-info">
         <h2 class="product-brand">brand</h2>
         a short line about the cloth.
         <span class="price">$20</span><span class="actual-price">$40</span>
       </div>
    </div>
</div>
</section>
<footer>
</footer>
  <script src="static/js/nav.js"></script>
  <script src="static/js/home.js"></script>
  <script src="static/js/footer.js"></script>
</body>
```

</html>



7.1 Feature 2

Using chat bot we can manage user's choices and orders.

from flask import Flask, render_template

import os

```
app = Flask(__name__, template_folder='Templates', static_folder='static')
```

@app.route('/')

def index():

return render_template('index.html')

@app.route('/product')

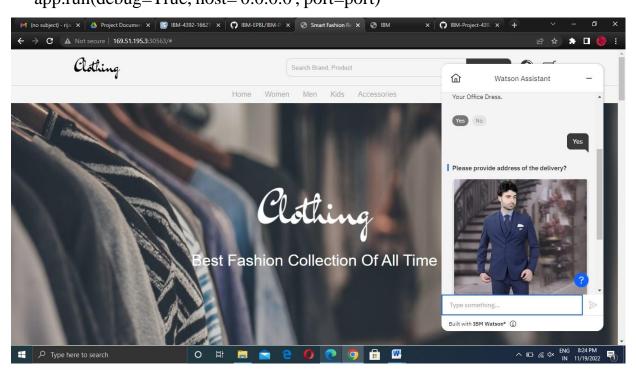
def product():

return render_template('product.html')

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

@app.route('/404')
def error():
    return render_template('404.html')

if___name__ =='___main___':
    port = int(os.environ.get('PORT', 5000))
    app.run(debug=True, host='0.0.0.0', port=port)
```



8. TESTING

8.1 Test Cases

This report shows the number of test cases that have passed, failed, and untested

| Section | Total Cases | NotTest ed | Fa il | Pa ss |
|---------------------|----------------|---------------|----------|----------|
| Login | 5 | 0 | 0 | 5 |
| Register | 7 | 0 | 0 | 7 |
| Home Page | 2 | 0 | 0 | 2 |
| Order page | 3 | 0 | 0 | 3 |
| Order products | 9 | 0 | 0 | 9 |
| Final Report Output | 4 | 0 | 0 | 4 |
| Version Control | 2 | 0 | 0 | 2 |

| 9 | | | | Date | 03-Nov-22 | () |
|--|--------------|------------|--|---------------|---|--|
| | | | | Team ID | PNT2022TMID48162 | |
| | | | | Project Name | Smart Fashion Recommender Application | |
| | | | | Maximum Marks | 4 marks | |
| Test case ID | Feature Type | Component | Test Scenario | Pre-Requisite | Steps To Execute | Test Data |
| LoginPage_TC_001 | Functional | Home Page | Verify user is able to see the Login/Signup popup when user clicked on My account button | | Enter URL and click go Click on My Account dropdown button Verify login/Singup popup displayed or not | https://lecalhest.4000/logi |
| LoginPage_TC_002 | UI | Home Page | Verify the UI elements in Login/Signup popup | | 1. Enter URL and click go 2. Click on My Account drapdown button 3. Verify login/Singup popup with below UI elements: a.email text box. b.password text box. c.login button d.New customer? Create account link e.Last password? Recovery password link e.Last password? Recovery password link | https://localhost.4000/ |
| LoginPage_TC_003 | Functional | Home page | Verify user is able to log into application with Valid credentials | | 1.Enter URL(https://shopenzer.com/) and dick go 2.Click on My Account dropdown button 3.Enter Valid username/email in Email text box 4.Enter valid password in password text box 5.Click on login button | Username:rijanish4 10@gmail.com paspword: 123456 |
| LoginPage_TC_OO4 | Functional | Login page | Verify user is able to log into application with invalid credentials | | Enter URL(https://Localhost:4000/) and click go Cick on My Account dropdown button Senter InValid username/email in Email text box 4.Enter valid password in password text box S.Click on login button | Username: ci01@gmail.com password: Testing123 |
| LoginPage_TC_004 | Functional | Login page | Verify user is able to log into application with inValid credentials | | 1.Enter URL(https://Localhost:4000/) and click go 2.Click on My Account dropdown button 3.Enter Valid usernami/amail in Email text box 4.Enter Invalid password in password text box 5.Click on login button | Username: cianish410/9 gmail. com password: 1234567 |
| LoginPage_TC_005 | Functional | Login page | Verify user is able to log into application with inValid credentials | | Enter URL (https://Localhost:4000/Jand click go Click on My Account dropdown button S.Enter InValid username/email in Email text box 4 Enter Invalid sacsword in password text box S.Click on login button | Username: riDt@gmail.com password: Testing123 |
| erify user is able that with chat bot ? | Functional | | Verifly user is able to chat with chat Bot | | Chat bot under the website | Dress |

| Verify user is able to Buy products | Functional | order page | verify user is able to order products | user will buy the prodject in order page | user data |
|---|------------|------------|--|--|-----------|
| Veriify user is get purchase conformation mail? | | order page | verify user is able to get conformation mail | user will get the mail Notification | email |
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| Expected Result | Actual Result | Status | Commnets | TC for Automation(Y/N) | BUG ID | Executed By |
|---|------------------------|--------|----------|------------------------|--------|-------------|
| Login/Signup popup should display | Working as expected | Pass | | | 5 35 | |
| Application should show below UI elements: a.email text box b.password text box c.Login button with orange colour d.New customer? Create account link e.Last password? Recovery password link | Working as expected | Pass | | | | |
| User should navigate to user account homepage | working as expected | Pass | | | | |
| Application should show 'Incorrect email or password ' validation message. | Working as expected | Pass | | | | |
| Application should show 'Incorrect email or password ' validation message. | working as expected | Pass | | | | |
| Application should show 'Incorrect email or password ' validation message. | working as expected | Pass | | | | |
| Application will send replay as dress | Working as expected | Pass | | 4 | | , |

| Apllication will send order conformation message | Working as expected | Pass | | |
|---|------------------------|------|--|--|
| Application will send conformation email | working as expected | pass | | |
| | | | | |
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8.2 User Acceptance Testing

Purpose of Document

The purpose of this document is to briefly explain the test coverage and open issues of the SmartFashionRecommender Application project at the time of the release too User Acceptance Testing (UAT).

Defect Analysis

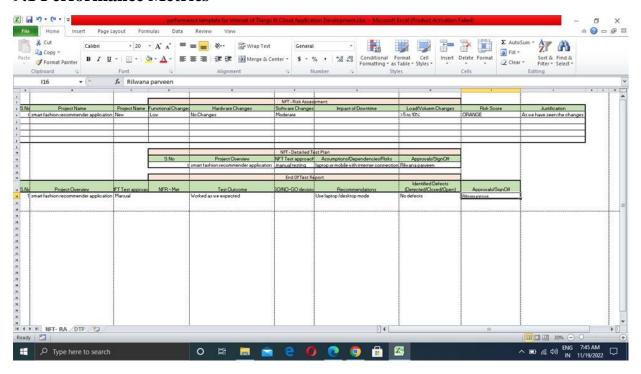
This report shows the number of resolved or closed bugs at each severity level, and how theywere resolved

| Resolu | Sever | Sever | Sever | Sever | Subto |
|--------|-------|-------|-------|-------|-------|
| tion | ity 1 | ity 2 | ity 3 | ity 4 | tal |

| By Design | 5 | 5 | 2 | 3 | 21 |
|-----------------------|----|----|----|----|----|
| Duplicate | 1 | 0 | 3 | 0 | 4 |
| External | 2 | 3 | 0 | 1 | 6 |
| Fixed | 11 | 2 | 4 | 20 | 37 |
| Not Reproduc ed | 0 | 0 | 1 | 0 | 1 |
| Skipped | 0 | 0 | 1 | 1 | 2 |
| Won't Fix | 0 | 5 | 2 | 1 | 8 |
| Totals | 24 | 14 | 13 | 26 | 77 |

9. RESULTS

9.1 Performance Metrics



10 ADVANTAGES & DISADVANTAGES

ADVANTAGES

Chatbots can gather Customer Insights.

Reduction in Costs of Human Resource

Interactive marketing guide.

Increase in number of customers.

Anytime anywhere.

Customer satisfaction.

Quick response.

DISADVANTAGES

Less contact of customers.

Lagging of customer satisfaction.

No quick response.

Waste of time for customer to to buy product easily.

Can't answer the multipart question.

This project smart fashion recommender application has been developed using python flask. This bot has the ability to have conversation with the consumers knowing, understanding their needs and problem and gives answer to all what They need. Thus, site of proposed marketing guide gives us better bot performance in marketing field. Thus a higher system performance is achieved. The website provides a computerized version of marketing which will benefit in the product of the company. It makes entire process easy.

FUTURE SCOPE

11.

Future chatbots can communicate at multiple levels with automation at the system level. They have the ability to maintain the system, task, and peoplecontexts. There is a possibility of introduction of master bots and eventually chatbot OS. The future of chatbots is that businesses will automate simple payments

and allow users to pay directly over live chat or Facebook Messenger apps. The instant process makes the cusmer happy and improves customer satisfaction. MasterCard has also launched a chatbot, especially for customer payments. Voice bots are becoming mainstream. Voice is the next big thing!. Users are already used to starting their days with "Ok Google, what's in my calendar today?".

be voice-driven". It is a greatly emerging conversational banking trend. It's all about facilitating your users with a seamless experience with your business, and you can achieve that by voice-driven chatbots. Accenture research says "Digital consumers prefer messaging platforms that have a voice and text-based interfaces."

13. APPENDIX

Source Code

Index.html

```
<!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-</pre>
scale=1.0">
  <title>Smart Fashion Recommender Application</title>
  <link rel="stylesheet" href="static/css/home.css">
</head>
<body>
  <nav class="navbar">
  </nav>
```

```
<!-- hero section -->
<header class="hero-section">
  <div class="content">
    <img src="static/img/light-logo.png" class="logo" alt="">
    best fashion collection of all time
  </div>
</header>
<section class="product">
  <h2 class="product-category">best selling</h2>
  <button class="pre-btn"><img src="static/img/arrow.png"
alt=""></button>
<button class="nxt-btn"><img src="static/img/arrow.png"
alt=""></button>
  <div class="product-container">
    <div class="product-card">
       <div class="product-image">
         <span class="discount-tag">50% offer</span>
         <img src="static/img/card1.png" class="product-thumb"</pre>
alt="">
         <button class="card-btn">add to whislist</button>
```

```
</div>
      <div class="product-info">
        <h2 class="product-brand">brand</h2>
        a short line about the cloth.
        <span class="price">$20</span><span class="actual-</pre>
price">$40</span>
      </div>
    </div>
    <div class="product-card">
      <div class="product-image">
        <span class="discount-tag">50% offer</span>
        <img src="static/img/card2.png" class="product-thumb"</pre>
alt="">
        <button class="card-btn">add to whislist</button>
      </div>
      <div class="product-info">
        <h2 class="product-brand">brand</h2>
        a short line about the cloth.
        <span class="price">$20</span><span class="actual-</pre>
price">$40</span>
      </div>
    </div>
    <div class="product-card">
      <div class="product-image">
```

```
<span class="discount-tag">50% offer</span>
         <img src="static/img/card3.png" class="product-thumb"</pre>
alt="">
         <button class="card-btn">add to whislist</button>
      </div>
       <div class="product-info">
         <h2 class="product-brand">brand</h2>
         a short line about the cloth.
         <span class="price">$20</span><span class="actual-</pre>
price">$40</span>
       </div>
    </div>
    <div class="product-card">
       <div class="product-image">
         <span class="discount-tag">50% offer</span>
         <img src="static/img/card4.png" class="product-thumb"</pre>
alt="">
         <button class="card-btn">add to whislist</button>
       </div>
      <div class="product-info">
```

```
<h2 class="product-brand">brand</h2>
         a short line about the cloth.
        <span class="price">$20</span><span class="actual-</pre>
price">$40</span>
      </div>
    </div>
    <div class="product-card">
      <div class="product-image">
         <span class="discount-tag">50% offer</span>
        <img src="static/img/card5.png" class="product-thumb"</pre>
alt="">
         <button class="card-btn">add to whislist</button>
      </div>
      <div class="product-info">
         <h2 class="product-brand">brand</h2>
         a short line about the cloth.
        <span class="price">$20</span><span class="actual-</pre>
price">$40</span>
      </div>
    </div>
    <div class="product-card">
      <div class="product-image">
         <span class="discount-tag">50% offer</span>
         <img src="static/img/card6.png" class="product-thumb"</pre>
```

```
alt="">
        <button class="card-btn">add to whislist</button>
      </div>
      <div class="product-info">
        <h2 class="product-brand">brand</h2>
        a short line about the cloth.
        <span class="price">$20</span><span class="actual-</pre>
price">$40</span>
      </div>
    </div>
    <div class="product-card">
      <div class="product-image">
        <span class="discount-tag">50% offer</span>
        <img src="static/img/card7.png" class="product-thumb"</pre>
alt="">
        <button class="card-btn">add to whislist</button>
      </div>
      <div class="product-info">
        <h2 class="product-brand">brand</h2>
        a short line about the cloth.
```

```
<span class="price">$20</span><span class="actual-</pre>
price">$40</span>
       </div>
    </div>
    <div class="product-card">
       <div class="product-image">
         <span class="discount-tag">50% offer</span>
         <img src="static/img/card8.png" class="product-thumb"</pre>
alt="">
         <button class="card-btn">add to whislist</button>
       </div>
       <div class="product-info">
         <h2 class="product-brand">brand</h2>
         a short line about the cloth.
         <span class="price">$20</span><span class="actual-</pre>
price">$40</span>
       </div>
    </div>
  </div>
</section>
<!-- collections -->
<section class="collection-container">
  <a href="#" class="collection">
    <img src="static/img/women-collection.png" alt="">
```

```
women <br>> apparels
  </a>
  <a href="#" class="collection">
    <img src="static/img/men-collection.png" alt="">
    men <br>> apparels
  </a>
  <a href="#" class="collection">
    <img src="static/img/accessories-collection.png" alt="">
    accessories
  </a>
</section>
<section class="product">
  <h2 class="product-category">shirts</h2>
  <button class="pre-btn"><img src="static/img/arrow.png"
alt=""></button>
<button class="nxt-btn"><img src="static/img/arrow.png"
alt=""></button>
  <div class="product-container">
    <div class="product-card">
      <div class="product-image">
```

```
<span class="discount-tag">50% offer</span>
         <img src="static/img/product image 1.png" class="product-</pre>
thumb" alt="">
         <button class="card-btn">add to whislist</button>
       </div>
      <div class="product-info">
         <h2 class="product-brand">brand</h2>
         a short line about the cloth.
         <span class="price">$20</span><span class="actual-</pre>
price">$40</span>
      </div>
    </div>
    <div class="product-card">
      <div class="product-image">
         <span class="discount-tag">50% offer</span>
         <img src="static/img/product image 3.png" class="product-</pre>
thumb" alt="">
         <button class="card-btn">add to whislist</button>
       </div>
       <div class="product-info">
         <h2 class="product-brand">brand</h2>
         a short line about the cloth.
         <span class="price">$20</span><span class="actual-</pre>
```

```
price">$40</span>
      </div>
    </div>
    <div class="product-card">
      <div class="product-image">
         <span class="discount-tag">50% offer</span>
         <img src="static/img/product image 4.png" class="product-</pre>
thumb" alt="">
         <button class="card-btn">add to whislist</button>
       </div>
      <div class="product-info">
         <h2 class="product-brand">brand</h2>
         a short line about the cloth.
         <span class="price">$20</span><span class="actual-</pre>
price">$40</span>
      </div>
    </div>
    <div class="product-card">
      <div class="product-image">
```

```
<span class="discount-tag">50% offer</span>
         <img src="static/img/card2.png" class="product-thumb"</pre>
alt="">
         <button class="card-btn">add to whislist</button>
       </div>
      <div class="product-info">
         <h2 class="product-brand">brand</h2>
         a short line about the cloth.
         <span class="price">$20</span><span class="actual-</pre>
price">$40</span>
       </div>
    </div>
    <div class="product-card">
       <div class="product-image">
         <span class="discount-tag">50% offer</span>
         <img src="static/img/card3.png" class="product-thumb"</pre>
alt="">
         <button class="card-btn">add to whislist</button>
       </div>
      <div class="product-info">
         <h2 class="product-brand">brand</h2>
         a short line about the cloth.
         <span class="price">$20</span><span class="actual-</pre>
price">$40</span>
```

```
</div>
    </div>
    <div class="product-card">
      <div class="product-image">
         <span class="discount-tag">50% offer</span>
         <img src="static/img/card5.png" class="product-thumb"</pre>
alt="">
         <button class="card-btn">add to whislist</button>
      </div>
      <div class="product-info">
         <h2 class="product-brand">brand</h2>
         a short line about the cloth.
         <span class="price">$20</span><span class="actual-</pre>
price">$40</span>
      </div>
    </div>
    <div class="product-card">
      <div class="product-image">
         <span class="discount-tag">50% offer</span>
```

```
<img src="static/img/card6.png" class="product-thumb"</pre>
alt="">
         <button class="card-btn">add to whislist</button>
      </div>
      <div class="product-info">
         <h2 class="product-brand">brand</h2>
         a short line about the cloth.
         <span class="price">$20</span><span class="actual-</pre>
price">$40</span>
      </div>
    </div>
    <div class="product-card">
      <div class="product-image">
         <span class="discount-tag">50% offer</span>
         <img src="static/img/card7.png" class="product-thumb"</pre>
alt="">
         <button class="card-btn">add to whislist</button>
      </div>
      <div class="product-info">
         <h2 class="product-brand">brand</h2>
         a short line about the cloth.
         <span class="price">$20</span><span class="actual-</pre>
price">$40</span>
```

```
</div>
    </div>
    <div class="product-card">
      <div class="product-image">
         <span class="discount-tag">50% offer</span>
         <img src="static/img/card8.png" class="product-thumb"</pre>
alt="">
         <button class="card-btn">add to whislist</button>
      </div>
      <div class="product-info">
         <h2 class="product-brand">brand</h2>
         a short line about the cloth.
         <span class="price">$20</span><span class="actual-</pre>
price">$40</span>
      </div>
    </div>
  </div>
</section>
```

```
<section class="product">
  <h2 class="product-category">shoes</h2>
  <button class="pre-btn"><img src="static/img/arrow.png"</pre>
alt=""></button>
<button class="nxt-btn"><img src="static/img/arrow.png"
alt=""></button>
  <div class="product-container">
    <div class="product-card">
       <div class="product-image">
         <span class="discount-tag">50% offer</span>
         <img src="static/img/card9.png" class="product-thumb"</pre>
alt="">
         <button class="card-btn">add to whislist</button>
       </div>
       <div class="product-info">
         <h2 class="product-brand">brand</h2>
         a short line about the cloth.
         <span class="price">$20</span><span class="actual-</pre>
price">$40</span>
       </div>
    </div>
    <div class="product-card">
       <div class="product-image">
         <span class="discount-tag">50% offer</span>
```

```
<img src="static/img/card10.png" class="product-thumb"</pre>
alt="">
         <button class="card-btn">add to whislist</button>
      </div>
      <div class="product-info">
         <h2 class="product-brand">brand</h2>
         a short line about the cloth.
         <span class="price">$20</span><span class="actual-</pre>
price">$40</span>
       </div>
    </div>
    <div class="product-card">
       <div class="product-image">
         <span class="discount-tag">50% offer</span>
         <img src="static/img/card11.png" class="product-thumb"</pre>
alt="">
         <button class="card-btn">add to whislist</button>
      </div>
       <div class="product-info">
         <h2 class="product-brand">brand</h2>
```

```
a short line about the cloth.
        <span class="price">$20</span><span class="actual-</pre>
price">$40</span>
      </div>
    </div>
    <div class="product-card">
      <div class="product-image">
        <span class="discount-tag">50% offer</span>
        <img src="static/img/card12.png" class="product-thumb"</pre>
alt="">
        <button class="card-btn">add to whislist</button>
      </div>
      <div class="product-info">
        <h2 class="product-brand">brand</h2>
        a short line about the cloth.
        <span class="price">$20</span><span class="actual-</pre>
price">$40</span>
      </div>
    </div>
```

```
</section>
<footer>
</footer>
  <script src="static/js/nav.js"></script>
  <script src="static/js/home.js"></script>
  <script src="static/js/footer.js"></script>
</body>
</html>
Product.html
<!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-</pre>
scale=1.0">
  <title>Product</title>
```

```
<link rel="stylesheet" href="static/css/home.css">
  <link rel="stylesheet" href="static/css/product.css">
</head>
<body>
  <nav class="navbar">
  </nav>
  <section class="product-details">
    <div class="image-slider">
       <div class="product-images">
         <img src="static/img/product image 1.png" class="active"</pre>
alt="">
         <img src="static/img/product image 2.png" alt="">
         <img src="static/img/product image 3.png" alt="">
         <img src="static/img/product image 4.png" alt="">
       </div>
    </div>
    <div class="details">
       <h2 class="product-brand">calvin klein</h2>
       Lorem ipsum dolor sit, amet
consectetur adipisicing elit.
       <span class="product-price">$99</span>
```

```
<span class="product-actual-price">$200</span>
       <span class="product-discount">( 50% off )</span>
       select size
       <input type="radio" name="size" value="s" checked hidden</pre>
id="s-size">
       <label for="s-size" class="size-radio-btn check">s</label>
       <input type="radio" name="size" value="m" hidden id="m-
size">
       <label for="m-size" class="size-radio-btn">m</label>
       <input type="radio" name="size" value="l" hidden id="l-size">
       <label for="l-size" class="size-radio-btn">l</label>
       <input type="radio" name="size" value="xl" hidden id="xl-</pre>
size">
       <label for="xl-size" class="size-radio-btn">xl</label>
       <input type="radio" name="size" value="xxl" hidden id="xxl-</pre>
size">
       <label for="xxl-size" class="size-radio-btn">xxl</label>
```

```
<button class="btn cart-btn">add to cart</button>
       <button class="btn">add to wishlist</button>
    </div>
  </section>
  <section class="detail-des">
    <h2 class="heading">description</h2>
    Lorem ipsum dolor sit amet consectetur adipisicing
elit. Veniam,.....
  </section>
  <section class="product">
    <h2 class="product-category">best selling</h2>
    <button class="pre-btn"><img src="static/img/arrow.png"
alt=""></button>
  <button class="nxt-btn"><img src="static/img/arrow.png"
alt=""></button>
    <div class="product-container">
       <div class="product-card">
         <div class="product-image">
           <span class="discount-tag">50% offer</span>
           <img src="static/img/card1.png" class="product-thumb"</pre>
alt="">
           <button class="card-btn">add to whislist</button>
         </div>
```

```
<div class="product-info">
           <h2 class="product-brand">brand</h2>
          a short line about the
cloth.
          <span class="price">$20</span><span class="actual-</pre>
price">$40</span>
        </div>
      </div>
      <div class="product-card">
        <div class="product-image">
           <span class="discount-tag">50% offer</span>
           <img src="static/img/card2.png" class="product-thumb"</pre>
alt="">
          <button class="card-btn">add to whislist</button>
        </div>
        <div class="product-info">
          <h2 class="product-brand">brand</h2>
          a short line about the
cloth.
          <span class="price">$20</span><span class="actual-</pre>
```

```
price">$40</span>
         </div>
       </div>
       <div class="product-card">
         <div class="product-image">
           <span class="discount-tag">50% offer</span>
           <img src="static/img/card3.png" class="product-thumb"</pre>
alt="">
           <button class="card-btn">add to whislist</button>
         </div>
         <div class="product-info">
           <h2 class="product-brand">brand</h2>
           a short line about the
cloth.
           <span class="price">$20</span><span class="actual-</pre>
price">$40</span>
         </div>
      </div>
       <div class="product-card">
         <div class="product-image">
           <span class="discount-tag">50% offer</span>
           <img src="static/img/card4.png" class="product-thumb"
alt="">
           <button class="card-btn">add to whislist</button>
```

```
</div>
        <div class="product-info">
          <h2 class="product-brand">brand</h2>
          a short line about the
cloth.
          <span class="price">$20</span><span class="actual-</pre>
price">$40</span>
        </div>
      </div>
      <div class="product-card">
        <div class="product-image">
          <span class="discount-tag">50% offer</span>
          <img src="static/img/card5.png" class="product-thumb"</pre>
alt="">
          <button class="card-btn">add to whislist</button>
        </div>
        <div class="product-info">
          <h2 class="product-brand">brand</h2>
          a short line about the
cloth.
```

```
<span class="price">$20</span><span class="actual-</pre>
price">$40</span>
         </div>
       </div>
       <div class="product-card">
         <div class="product-image">
           <span class="discount-tag">50% offer</span>
           <img src="static/img/card6.png" class="product-thumb"</pre>
alt="">
           <button class="card-btn">add to whislist</button>
         </div>
         <div class="product-info">
           <h2 class="product-brand">brand</h2>
           a short line about the
cloth.
           <span class="price">$20</span><span class="actual-</pre>
price">$40</span>
         </div>
       </div>
       <div class="product-card">
         <div class="product-image">
           <span class="discount-tag">50% offer</span>
           <img src="static/img/card7.png" class="product-thumb"</pre>
alt="">
```

```
<button class="card-btn">add to whislist</button>
        </div>
        <div class="product-info">
          <h2 class="product-brand">brand</h2>
          a short line about the
cloth.
          <span class="price">$20</span><span class="actual-</pre>
price">$40</span>
        </div>
      </div>
      <div class="product-card">
        <div class="product-image">
           <span class="discount-tag">50% offer</span>
          <img src="static/img/card8.png" class="product-thumb"</pre>
alt="">
          <button class="card-btn">add to whislist</button>
        </div>
        <div class="product-info">
           <h2 class="product-brand">brand</h2>
          a short line about the
```

```
cloth.
           <span class="price">$20</span><span class="actual-</pre>
price">$40</span>
         </div>
       </div>
    </div>
  </section>
  <section class="product">
    <h2 class="product-category">shirts</h2>
    <button class="pre-btn"><img src="static/img/arrow.png"
alt=""></button>
  <button class="nxt-btn"><img src="static/img/arrow.png"
alt=""></button>
    <div class="product-container">
       <div class="product-card">
         <div class="product-image">
           <span class="discount-tag">50% offer</span>
           <img src="static/img/product image 1.png" class="product-</pre>
thumb" alt="">
           <button class="card-btn">add to whislist/button>
         </div>
         <div class="product-info">
           <h2 class="product-brand">brand</h2>
           a short line about the
```

```
cloth.
           <span class="price">$20</span><span class="actual-</pre>
price">$40</span>
         </div>
      </div>
      <div class="product-card">
         <div class="product-image">
           <span class="discount-tag">50% offer</span>
           <img src="static/img/product image 2.png" class="product-</pre>
thumb" alt="">
           <button class="card-btn">add to whislist</button>
         </div>
         <div class="product-info">
           <h2 class="product-brand">brand</h2>
           a short line about the
cloth.
           <span class="price">$20</span><span class="actual-</pre>
price">$40</span>
         </div>
      </div>
```

```
<div class="product-card">
         <div class="product-image">
           <span class="discount-tag">50% offer</span>
           <img src="static/img/product image 3.png" class="product-</pre>
thumb" alt="">
           <button class="card-btn">add to whislist</button>
         </div>
         <div class="product-info">
           <h2 class="product-brand">brand</h2>
           a short line about the
cloth.
           <span class="price">$20</span><span class="actual-</pre>
price">$40</span>
         </div>
       </div>
       <div class="product-card">
         <div class="product-image">
           <span class="discount-tag">50% offer</span>
           <img src="static/img/product image 4.png" class="product-</pre>
thumb" alt="">
           <button class="card-btn">add to whislist</button>
         </div>
         <div class="product-info">
           <h2 class="product-brand">brand</h2>
```

```
a short line about the
cloth.
           <span class="price">$20</span><span class="actual-</pre>
price">$40</span>
         </div>
       </div>
    </div>
  </section>
  <section class="product">
    <h2 class="product-category">shoes</h2>
    <button class="pre-btn"><img src="static/img/arrow.png"</pre>
alt=""></button>
  <button class="nxt-btn"><img src="static/img/arrow.png"</pre>
alt=""></button>
    <div class="product-container">
       <div class="product-card">
```

```
<div class="product-image">
           <span class="discount-tag">50% offer</span>
           <img src="static/img/card9.png" class="product-thumb"</pre>
alt="">
           <button class="card-btn">add to whislist</button>
        </div>
         <div class="product-info">
           <h2 class="product-brand">brand</h2>
           a short line about the
cloth.
           <span class="price">$20</span><span class="actual-</pre>
price">$40</span>
         </div>
      </div>
      <div class="product-card">
         <div class="product-image">
           <span class="discount-tag">50% offer</span>
           <img src="static/img/card10.png" class="product-thumb"</pre>
alt="">
           <button class="card-btn">add to whislist</button>
         </div>
         <div class="product-info">
           <h2 class="product-brand">brand</h2>
           a short line about the
```

```
cloth.
           <span class="price">$20</span><span class="actual-</pre>
price">$40</span>
         </div>
      </div>
      <div class="product-card">
         <div class="product-image">
           <span class="discount-tag">50% offer</span>
           <img src="static/img/card11.png" class="product-thumb"</pre>
alt="">
           <button class="card-btn">add to whislist</button>
         </div>
         <div class="product-info">
           <h2 class="product-brand">brand</h2>
           a short line about the
cloth.
           <span class="price">$20</span><span class="actual-</pre>
price">$40</span>
         </div>
      </div>
```

```
<div class="product-card">
         <div class="product-image">
           <span class="discount-tag">50% offer</span>
           <img src="static/img/card12.png" class="product-thumb"</pre>
alt="">
           <button class="card-btn">add to whislist</button>
         </div>
         <div class="product-info">
           <h2 class="product-brand">brand</h2>
           a short line about the
cloth.
           <span class="price">$20</span><span class="actual-</pre>
price">$40</span>
         </div>
      </div>
    </div>
  </section>
<footer></footer>
```

```
<script src="static/js/nav.js"></script>
  <script src="static/js/footer.js"></script>
  <script src="static/js/home.js"></script>
  <script src="static/js/product.js"></script>
</body>
</html>
Search.html
<!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-</pre>
scale=1.0">
  <title>Search Results for</title>
  <link rel="stylesheet" href="static/css/home.css">
 <link rel="stylesheet" href="static/css/search.css">
</head>
<body>
  <nay class="navbar"></nay>
```

```
<section class="search-results">
    <h2 class="heading">search results for
<span>product</span></h2>
  </section>
  <div class="product-container">
    <div class="product-card">
       <div class="product-image">
         <span class="discount-tag">50% offer</span>
         <img src="static/img/card1.png" class="product-thumb"</pre>
alt="">
         <button class="card-btn">add to whislist</button>
       </div>
       <div class="product-info">
         <h2 class="product-brand">brand</h2>
         a short line about the cloth.
         <span class="price">$20</span><span class="actual-</pre>
price">$40</span>
       </div>
    </div>
       <div class="product-card">
         <div class="product-image">
           <span class="discount-tag">50% offer</span>
           <img src="static/img/card2.png" class="product-thumb"</pre>
alt="">
```

```
<button class="card-btn">add to whislist</button>
        </div>
        <div class="product-info">
          <h2 class="product-brand">brand</h2>
          a short line about the
cloth.
          <span class="price">$20</span><span class="actual-</pre>
price">$40</span>
        </div>
      </div>
      <div class="product-card">
        <div class="product-image">
           <span class="discount-tag">50% offer</span>
          <img src="static/img/card3.png" class="product-thumb"</pre>
alt="">
          <button class="card-btn">add to whislist</button>
        </div>
        <div class="product-info">
           <h2 class="product-brand">brand</h2>
          a short line about the
```

```
cloth.
           <span class="price">$20</span><span class="actual-</pre>
price">$40</span>
         </div>
       </div>
       <div class="product-card">
         <div class="product-image">
           <span class="discount-tag">50% offer</span>
           <img src="static/img/card4.png" class="product-thumb"</pre>
alt="">
           <button class="card-btn">add to whislist</button>
         </div>
         <div class="product-info">
           <h2 class="product-brand">brand</h2>
           a short line about the
cloth.
           <span class="price">$20</span><span class="actual-</pre>
price">$40</span>
         </div>
       </div>
       <div class="product-card">
         <div class="product-image">
           <span class="discount-tag">50% offer</span>
           <img src="static/img/card5.png" class="product-thumb"</pre>
```

```
alt="">
           <button class="card-btn">add to whislist</button>
         </div>
         <div class="product-info">
           <h2 class="product-brand">brand</h2>
           a short line about the
cloth.
           <span class="price">$20</span><span class="actual-</pre>
price">$40</span>
         </div>
      </div>
      <div class="product-card">
         <div class="product-image">
           <span class="discount-tag">50% offer</span>
           <img src="static/img/card6.png" class="product-thumb"</pre>
alt="">
           <button class="card-btn">add to whislist</button>
         </div>
         <div class="product-info">
           <h2 class="product-brand">brand</h2>
```

```
a short line about the
cloth.
           <span class="price">$20</span><span class="actual-</pre>
price">$40</span>
        </div>
      </div>
      <div class="product-card">
        <div class="product-image">
           <span class="discount-tag">50% offer</span>
           <img src="static/img/card7.png" class="product-thumb"</pre>
alt="">
           <button class="card-btn">add to whislist</button>
        </div>
        <div class="product-info">
           <h2 class="product-brand">brand</h2>
           a short line about the
cloth.
           <span class="price">$20</span><span class="actual-</pre>
price">$40</span>
        </div>
      </div>
      <div class="product-card">
        <div class="product-image">
           <span class="discount-tag">50% offer</span>
```

</div>

```
</div>
```

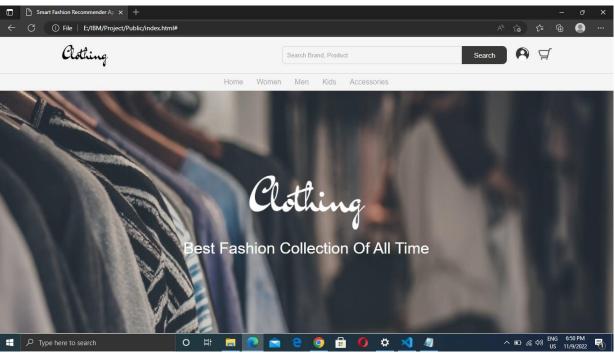
```
<footer></footer>
  <script src="static/js/nav.js"></script>
  <script src="static/js/footer.js"></script>
</body>
</html>
404.html
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-</pre>
scale=1.0">
  <title>Page not found-User lost</title>
  <link rel="stylesheet" href="static/css/home.css">
 <link rel="stylesheet" href="static/css/404.css">
```

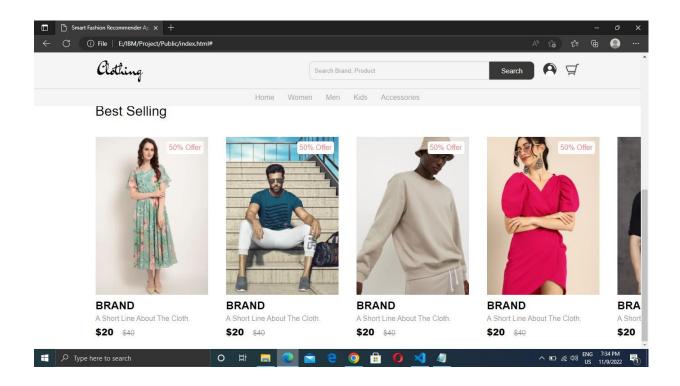
```
</head>
<body>
  <nav class="navbar"></nav>
  <img src="static/img/404.png" class="four-0-four-image" alt="">
look like you are lost. Head to back to our
<a href="#">homepage</a>
  <script src="static/js/nav.js"></script>
</body>
</html>
app.py
@app.route('/')
def index():
  return render_template('index.html')
@app.route('/product')
def product():
  return render_template('product.html')
```

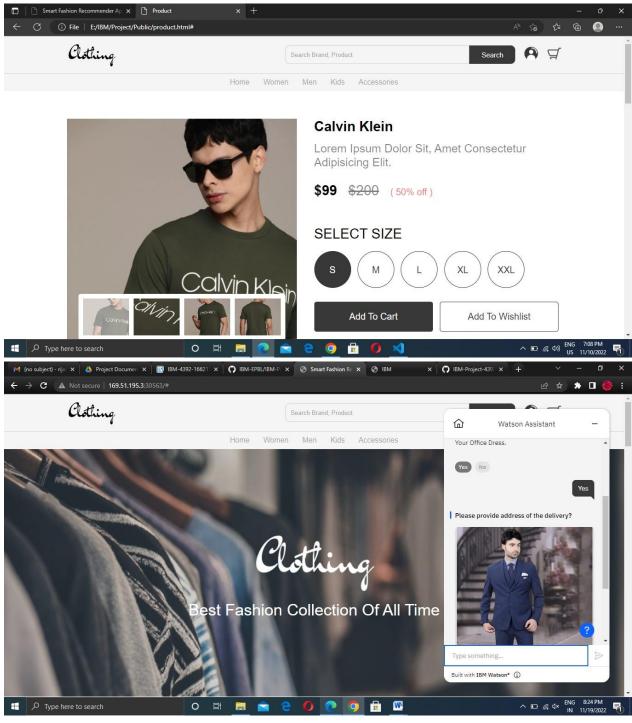
```
@app.route('/search')
def search():
    return render_template('search.html')

@app.route('/404')
def error():
    return render_template('404.html')

if___name__ =='___main___':
    port = int(os.environ.get('PORT', 5000))
    app.run(debug=True, host='0.0.0.0', port=port)
```







GitHub & Project Demo Link

IBM-Project-4392-1658731021

https://drive.google.com/file/d/1B3E51yCps7L0UUWLRvjkoXAWzdQezdSP/vie w?usp=sharing