Smart Fashion Recommender Application

PROJECT REPORT

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(Approved by AICTE and Affiliated to Anna University, Chennai)
ACCREDITED BY NAAC WITH "A" GRADE

BONAFIDE CERTIFICATE

Certified that this project report titled **"Smart Fashion Recommender Application"** is the bonafide work of **MENAGA M (19EUCS084), RENUGA DEVI V (19EUCS115), NIVETHIDHA R V (19EUCS102), KRITHIKA A (19EUCS070)** who carried out the project work under my supervision.

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This project report is submitted for the Autonomous Project Viva-Voce examination held on …………......

INTERNAL EXAMINER   **EXTERNAL EXAMINER**

ACKNOWLEDGEMENT

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1.1 Project Overview

Recommendation system involves a decision-making approach for users under a multidimensional information environment . RS has also been defined as an e-commerce tool, which helps consumers search based on knowledge that is related to a consumer's choices and preferences . RS also assists in augmenting social processes by using the recommendations of other users when there is no abundant personal information or knowledge of the alternatives . RS handles the complication of information overload that consumers usually encounter by offering customized service, exclusive content, and personalized recommendations .There are multiple phases involved in the recommendation system that develop the foundation of any state-of-the-art recommendation system. These are defined as the information collection phase, the learning phase, and the recommendation phase. The interrelationship of these phases are involved in the recommendation process. It shows that information collection is the initial stage of RS, which is followed by the learning phase and the recommendation phase. The recommendation provided in the last phase can be generated based on information gathered during the information collection phase.

1.2 Purpose

On e-commerce platforms, where numerous choices are available, an efficient recommendation system is required to sort, order, and efficiently convey relevant product content or information to users. Image-based fashion recommendation systems (FRSs) have attracted a huge amount of attention from fast fashion retailers as they provide a personalized shopping experience to consumers. With the technological advancements, this branch of artificial intelligence exhibits a tremendous amount of potential in image processing, parsing, classification, and segmentation. Despite its huge potential, the number of academic articles on this topic is limited. The available studies do not provide a rigorous review of fashion recommendation systems and the corresponding filtering techniques. To the best of the authors' knowledge, this is the first scholarly article to review the state-of-the-art fashion recommendation systems and the corresponding filtering techniques.This will help researchers, academics, and practitioners who are interested in machine learning, computer vision, and fashion retailing to understand the characteristics of the different fashion recommendation systems

2. LITERATURE SURVEY

2.1 Existing problems

1. Mr. Samit Chakraborty and Mr. Saiful Hoque, in their paper titled "FASHION RECOMMENDATION SYSTEMS, MODELS ANF METHODS" in the year 2021 have presented a detailed explanation about fashion recommendation systems. The system implements a thorough logic on how to present the ideal fashion that satisfies the requirements of the user. The system takes in information from the user about the specifics on what is needed. The system then collects all the information provided by the user such as what type of material, style of clothing, brands if any, sizes, occasions, moods, personalities etc. and it dumps it all on the specific algorithm. The algorithm then calculates the result based on all the parameters provided. It generates a series of outputs or in other words suggestions or recommendations that suite the user's needs. From that it then filters out the best possible fit that the user is looking for.

2. Mr. Malcolm Bernard, in his book titled "FASHION AS COMMUNICATION" in the year 2008, has talked about the social lifestyle part of fashion. He delves deep into the idea of fashion as being an international language for communities. In this fully revised and updated edition, Malcolm Barnard introduces fashion and clothing as ways of communicating and challenging class, gender, sexual and social identities. Drawing on a range of theoretical approaches from Barthes and Baudrillard to Marxist, psychoanalytic and feminist theory, Bernard addresses the ambivalent status of fashion in contemporary culture.

3. Ms. Jia Jia and Mr. Ke Gao, in their paper titled "TRIP OUTFITS ADVISOR: LOCATION ORIENTED CLOTHING RECOMMENDATION" in the year 2016, proposed a hybrid multilevel convolutional neural network that is combined with SVM (Support Vector Machine) that captures the complex relations between attributes of clothing and location collectively. The CNN architecture has been adapted by the author to the multi label learning and has fine-tuned it using each clothing item. The recognized items are being given as input to SVM in order to learn their correlations using which the outfits are recommended to the user. After conducting experiments using three fashion datasets with an ideal destination outfit dataset shows that the

proposed method outperforms several baselines by over 10.52-16.38% in terms of the map for clothing item recognition when ranking clothing by appropriateness for travel destination.

4. Mr. T. H. Ying Huang, in his paper titled "OUTFIT RECOMMENDATION BASED ON DEEP LEARNING" in the year 2017, proposed an outfit Recommendation System based on deep learning. This methodology consists of two important parts as follows: Feature Extractor and Binary Classifier. In first step, the feature extractor is used to extract the information about the input like colour, pattern, etc. and then it is passed to the binary classifier to get the output as good or bad in the form of "1" and "0" respectively. As the network is huge for training, he made use of ResNet-50 as feature extractor in the model.

5. Mr. Gregory F. Cooper and Mr. Edward Hershkovits, in their paper titled "A BAYESIAN METHOD FOR THE INDUCTION OF PROBABILISTIC NETWORKS FROM DATA" in the year 1992, proposed a flexible method for modelling complex joint probability. Due to the flexible nature of a Bayesian network, it is appropriate to represent the complex relations between preferences given by user and context. According to them, a user owns clothing items according to her / his preference so that the number of clothing items will not be the same for each color and that they assume it to be desirable for users that the system recommends items suitable to the specified temperature, season and occasion and that every item is recommended with equal frequency. The author constructs the Modified Bayesian network with an extra node for the system by two steps so as to satisfy the above two requirements.

6. Mr. Wei Zhang and Mr. Bo Begole, in their paper titled "REAL TIME CLOTHES COMPARISON BASED ON MULTIVIEW VISION" in the year 2008, proposed a method that recommends clothing that is "similar" and "different" than the clothing that a person is trying on in the mirror. This responsive mirror provides the user with "self" and "social" clothes comparisons. This will suggest cloths based on "similar" and "different" terminologies. Key components of this system are "motion tracking" and "clothes recognition". It uses a technique called "Linear regression" to predict similar clothes. As it uses responsive mirrors, that is there are two cameras, one in the front side and another in the ceiling. As users try some new clothes, he has to come to the room where these cameras are fixed. Motion tracking factor captures the movement and clothing recommendation factor will suggest clothes based on his movement.

There are two mirrors, left mirror shows the user in previous garments and similar pose, this will help the user to compare new clothes with the previous one. Whereas the right side mirror gives people wearing similar styles or different styles, this enables the user to compare with social clothing. Although it allows self and social comparison but will suggest clothes based on user's previous or other users choice, those suggestions may not be trendy and fashionable.

7. Mr. Yan Zhang and Mr. Xiang Liu, in their paper titled "Fashion Evaluation Method for Clothing Recommendation Based on Weak Appearance Feature" in the year 2017, proposed a method that evaluates the fashion level of an individual using weak appearance feature to evaluate fashion level. The proposed methodology put forward three major aspects of weak appearance feature to characterize fashion levels. It creates the first table as customer fashion level classification which characterized individuals based on the fashion level. The aim of this is to provide objective clothing recommendations to the customer. Then it creates the second table as a garment fashion level classification which is based on data from fashion designers, buyers, vendors, and producers. Then it extracts some features like the shape of the face, eyebrows placing, makeup, hair colour, accessories, etc. Finally, the customer's fashion level can be characterized by "support vendor product". It has great impact on clothing recommendation system, sometimes recommend lower level fashion.

8. Mrs. Qingqing Mao and Mr. Aihua Dong, in their paper titled "Intelligent Costume Recommendation System Based on Expert System" in the year 2018, proposed a method that recommends clothing based on an expert system. This methodology provides customer collocation solution. This system will first find how expert systems will solve a particular problem and then apply some artificial intelligence techniques to solve that problem, supported with vast knowledge and expert's experience. This system will firstly fetch specific physical information of the user such as body shape, face shape, etc. using manmachine interface. Then based on this physical information, the system will set up costume matching knowledgebased collected from experts and represents this knowledge with supporting production rules. And finally, they recommend the clothing to the customer with modified blackboard model reasoning. This system provides more personalized and professional clothing recommendations and costume matching knowledge from fashion experts. For this purpose, it uses serial blackboard

model and index adding algorithm. With the use of these methodologies, the search rate can be improved. This system recommends cloths only based on physical traits like body shape, face shape, skin color, shoulder shape, etc. It will not consider any other factor for the recommendation.

2.2 References

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[3]   Gupta S, Borkar D, De Mello C, Patil S. An E-Commerce Website based Chatbot. International Journal of Computer Science and Information Technologies. 2015;6(2):1483-5.

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2.3 Problem Statement Definition

- Create a problem statement to understand your customer's point of view. The Customer Problem Statement template helps you focus on what matters to create experiences people will love.

- A well-articulated customer problem statement allows you and your team to find the ideal solution for the challenges your customers face. Throughout the process, you'll also be able to empathize with your customers, which helps you better understand how they perceive your product or service.

I am	I'm trying to	But	Because	Which makes me feel
a Customer	See the trending collections	The searching technique is not good	of the app didn't use efficient search technique	Annoyed
Customer	Explore the application	The UI is not good when I try to access through mobile	The design of UI is not reliable and the back-end is also bad	Helpless
Customer	Place order	Every time I have to enter my details	The app is not able to save the information	Annoyed
Customer	Show collections according to my needs	I have to search all the filters	The app is not user friendly	Frustrated

3. IDEATION & PROPOSED SOLUTION

3.1 Empathy Map Canvas

The core empathy map, which aids in identifying and describing the user's wants and pain points, is expanded upon in an empathy map canvas. Additionally, this data is useful for enhancing user experience. Teams employ user insights to map out what matters to, impacts, and how their target audience presents themselves. Using this data, personas are then developed to assist teams in visualizing and empathizing with users as people rather than just as a general marketing demographic or account number.

What does he THINK AND FEEL?
- what really counts
- major preoccupatiens
- worries & aspirations

What does he HEAR?
- what friends say
- what boss say
- what influencers say

What does he SEE?
- enviroment
- friends
- what the market offers

What does he SAY AND DO?
- attitude in public
- appearance
- behavior towards others

Pain
- fears
- frustrations
- obstacles

Gain
- "wants" / needs
- measures of success
- obstacles

Empathy Map Canvas

3.2 Ideation & Brainstorming

Ideation fundamentally refers to the entire creative process of coming up with and sharing new ideas. Ideation is creative thought that usually aims to solve a problem or offer a better way to do something. It includes coming up with new ideas, developing current ideas, and determining how to put new ideas into effect.

Ideation and brainstorming, a particular method for producing fresh ideas, are frequently closely related activities. When brainstorming, a group of people are usually brought together to generate either new, broad ideas or suggestions for how to handle a particular situation or problem.
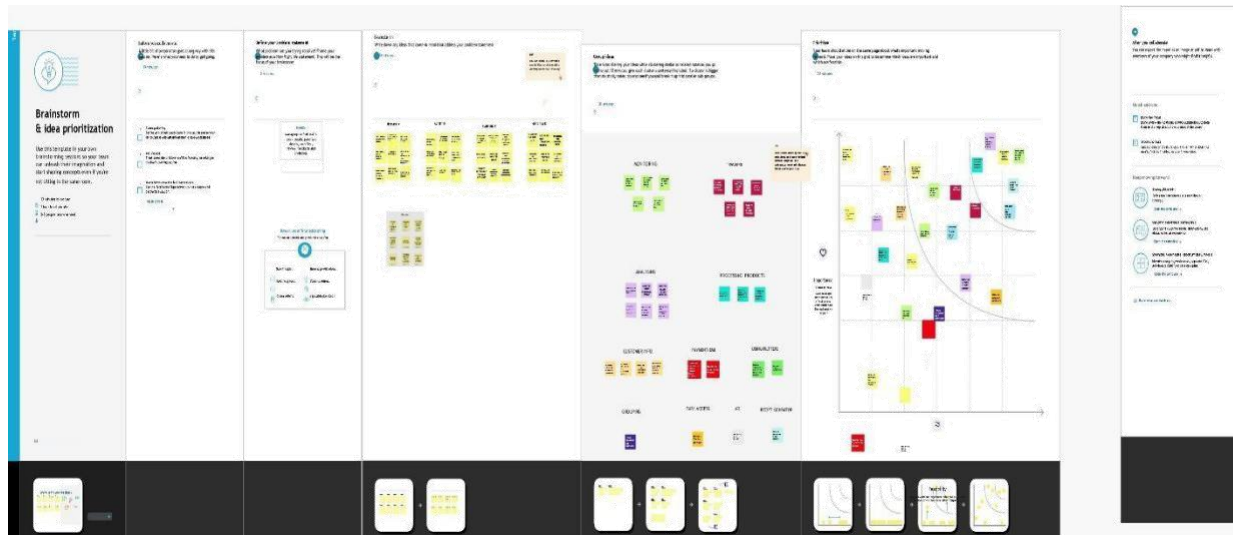
Ideation & Brainstorming

3.3 Proposed Solution

Traditional recommender systems such as Collaborative Filtering or Content-Based Filtering have difficulties in the fashion domain due to the sparsity of purchase data, or the insufficient detail about the visual appearance of the product in category names.Chatbots can bring innovation in online assistance and communication with customers. Due to the growth of e-commerce ,fashion brands have been adopting chatbots to provide personalized consumer experiences.

Chatbot can provide personalized shopping experiences across physical and online channels and promote consumer well being. However ,the main challenge remains on the complexity of human language and the chatbot's effectiveness within this context. It focuses on helping the user to find optimized matching pair of clothes taking into account intricates details like style ,patterns, colors ,texture. Also keeping in mind users attributes like age, skin tone ,favorite color etc…

It facilitate seamless live communication recommender system reduce stress for the consumer.

By responding proactively from a customer, the consumer receives a feeling of confidence and satisfaction. Human like chatbots lead to greater satisfaction and trust among customers, leading to greater adoption of the chatbot and increase the purchase level of customer and usage.

Recommendation system is a proven way to massively increase the sales .This varies from anywhere between 10%and 50%.depending on the accurate of the recommendation and the price point of product or service.

By getting to know your customers through content-based approch you will ensure that they keep coming back to you. As you learn what does and doesn't sell, you can offer main target audience exactly what they need .This will quickly lead to more sales and more profit for you

3.4 Problem Solution

3. TRIGGERS   TR

The buyers are triggered when adding a free gift or sample with a purchase and advertise it right on the page and also when their friend or neighbor buy a new product.

4. EMOTIONS: BEFORE / AFTER   EM

Before:
1. Feels doubtful and unsure
2. Confused

After:
1. Immediate
2. Satisfaction.

10. YOUR SOLUTION   SL

1. A user friendly application
2. Interaction with chatbots.
3. Engage customers.

8. CHANNELS of BEHAVIOUR   CH

ONLINE
Best channels are:
1. Instagram
2. YouTube
3. Website.

OFFLINE
It is difficult to increase the scalability (n number of user to million users).

4. REQUIREMENT ANALYSIS

4.1 Functional requirement

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	Registration through mail Registration through Gmail
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	User Login	Login using username & Password
FR-4	Personal Details	Personal details through Form Personal details through UI Tab
FR-5	Delivery Confirmation	Confirmation via Email Confirmation via Phone

4.2 Non-Functional requirements

Following are the non functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	Ease of use of the application for the user
NFR-2	Security	User privacy is the highest priority of the application. Security measures are undertaken for the user
NFR-3	Reliability	It can handle more than 2000 users at a time. It can process and initialize most functions.
NFR-4	Performance	The application can handle complex tasks and supports multi-tasking.
NFR-5	Availability	It is a free web and application available on all platforms.
NFR-6	Scalability	With higher workloads the user will experience a 10 to 17% drop in performance.

5. PROJECT DESIGN

5.1 Data Flow Diagrams

A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear DFD can depict the right amount of the system requirement graphically. It shows how data enters and leaves the system, what changes the information, and where data is stored.

Fashion Recommender: (Simplified)
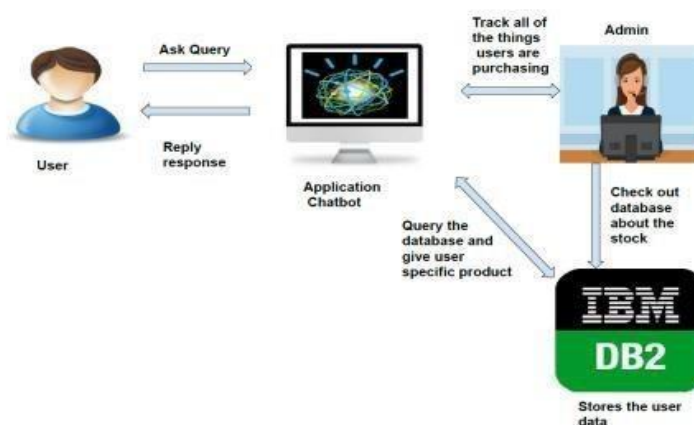
DFD of Fashion Recommender (Industry Standard)
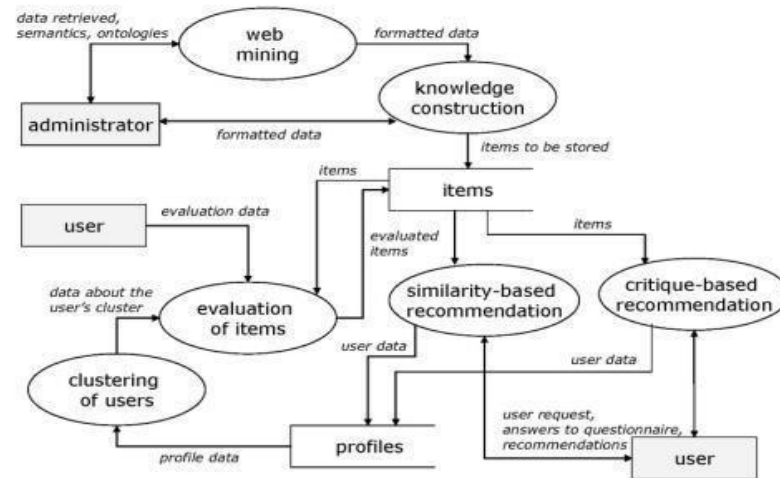
5.2 Solution & Technical Architecture
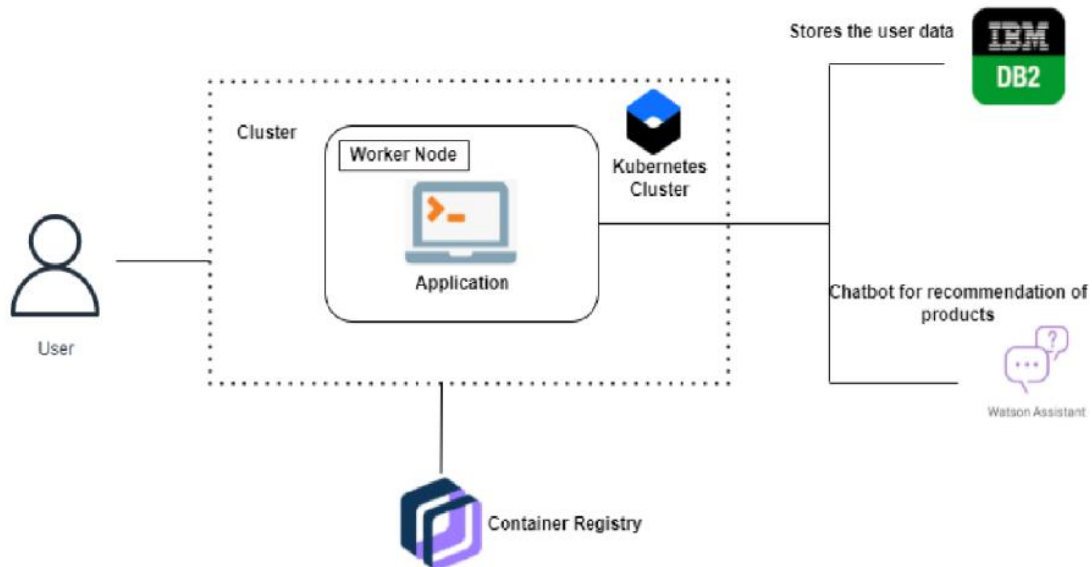
5.3 User Stories

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Customer (Mobile user)	Registration	USN-1	As a user, I can register for the application by entering my email, password, and confirming my password.	I can access my account / dashboard	High	Sprint-1
		USN-2	As a user, I will receive confirmation email once I have registered for the application	I can receive confirmation email & click confirm	High	Sprint-1
		USN-3	As a user, I can register for the application through Email	I can register & access the dashboard with Email Login	Low	Sprint-2
		USN-4	As a user, I can register for the application through Gmail	I can register & access the dashboard with Gmail Login	Medium	Sprint-1
	Login	USN-5	As a user, I can log into the application by entering my username/email & password	I can login into the application with Gmail Login	High	Sprint-1
	Dashboard	USN-5	As a user, I can log access the Dashboard of the application by logging into the application	I can access the Dashboard by logging into the application	High	Sprint-1
Customer (Web user)	Registration	USN-1	As a user, I can register for the web-page by entering my email, password, and confirming my password.	I can access my account / dashboard	High	Sprint-1
		USN-2	As a user, I will receive confirmation email once I have registered for the web-page	I can receive confirmation email & click confirm	High	Sprint-1
		USN-3	As a user, I can register for the web-page through Email	I can register & access the dashboard with Email Login	Low	Sprint-2
		USN-4	As a user, I can register for the web-page through Gmail	I can register & access the dashboard with Gmail Login	Medium	Sprint-1
	Login	USN-5	As a user, I can log into the web-page by entering my username/email & password	I can login into the application with Gmail Login	High	Sprint-1

User Type	Functional Requi11ement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
	Dashboard	USN-5	As a user, I can log access the Dashboard by logging into the web-page	I can access the Dashboard by logging into the web page.	High	Sprint-1
Customer Care Executive	Login	USN-1	As a Customer Care IE executive, I can log into the application by entering my Executive email id & password	I can login into the application with Gmail Login	High	Sprint-1
	Dashboard	USN-1	As a Customer Care IE executive, I can access UI Dashboard of the application by logging into the application	I can access the Dashboard by logging into the application	High	Sprint-2
	Service	USN-1	As a Customer Care IE executive, I can access he Customer service page of the application by logging and accessing the page	I can access the Service page by logging & accessing the page	High	Sprint-1
Administrator	Login	USN-1	As a Administrator, I can log into the application by entering my Administer email id & password	I can login into the application with Gmail Log in	High	Sprint-1
	Dashboard	USN-1	As a Administrator, I can access the Dashboard of the application by logging into the application	I can access the Dashboard by logging into the application	High	Sprint-2
	Administration & Service	USN-1	As administrator, I can access Administration & service page of the application by logging & accessing the page	I can access the Administration & Service page by logging	High	Sprint-2

6. PROJECT PLANNING & SCHEDULING
6.1 Sprint Planning & Estimation

A sprint is an allotted time frame during which a specific amount of work on a project will be finished. A project using the agile methodology will be divided into a number of sprints, with each sprint bringing the project one step closer to completion.

Sprint planning kicks off a sprint in the scrum methodology. The purpose of sprint planning is to define what can be accomplished in a sprint and how it will be accomplished. Sprint planning is a collective effort across the entire scrum team.

Sprint	Functional Requirement (Epic)	User Story / Task	Priority	Team Members
Sprint-1	Registration And initial Operation	**As a user, I can register to the application by entering my email, password, and confirm password or directly login through google API and Facebook.**	High	Nivethidha, Menaga

Sprint-1	OTP Registration Based	As a user once I registered the application, I would receive the OTP for confirming my account.	High	Renuga, Krithika, Nivethidha
Sprint-1	Interactive Home Page	As a user, I can see variety of products and click separate categories on the home page.	High	Menaga, ,
Sprint-2	Profile and Order Details	As a user, can easily access and edit the profile, order, and shopping cart.	High	Renuga, Nivethidha, Krithika
Sprint-2	Reviews Details	As a user, able to see each product, their reviews separately.	High	Menaga, Krithika
Sprint-2	Chat bot services	As a user, I can interact with the chatbot service for tracking my required product.	High	Menaga, Krithika, Renuga
Sprint-3	Payment System	User can able to pay the amount through variety of methods.	Medium	Menaga, Nivethidha,

Sprint-3	Seller Account	As a seller, can list and add his product request to the admin.	Medium	Menaga, Krithika
Sprint-3	Track the shipped Items	As a user, able to track the shipped order.	Medium	Renuga, Krithika, Nivethidha
Sprint-4	Admin page and keep track of the application	As an admin, able to keep track of the products and their availabilities.	High	Krithika, Renuga, Shravan
Sprint-4	Admin can validate the sellers and customers	As an admin, need to validate the customers and sellers.	High	Nivethidha
Sprint-4	Admin could view the recommendation of the customers	Able to obtain the customer interest and do recommendation changes in the chat bot.	Low	Nivethidha, Krithika

6.2 Sprint Delivery Schedule

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	11	6 Days	24 Oct 2022	29 Oct 2022	11	29 Oct 2022
Sprint-2	7	6 Days	31 Oct 2022	05 Nov 2022	7	05 Nov 2022
Sprint-3	6	6 Days	07 Nov 2022	12 Nov 2022	6	12 Nov 2022
Sprint-4	7	6 Days	14 Nov 2022	19 Nov 2022	7	19 Nov 2022

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6.2 Reports from JIRA

Project Tracker, Velocity:

Velocity:

Imagine we have a 10-day sprint duration, and the velocity of the team is 20 (points per sprint). Let's calculate the team's average velocity (AV) per iteration unit (story points per day)

Our velocity should be:

$$AV= = =1.29$$

Burndown Chart:

A burn down chart is a graphical representation of work left to do versus time. It is often used in agile software development methodologies such as Scrum. However, burn down charts can be applied to any project containing measurable progress over time.
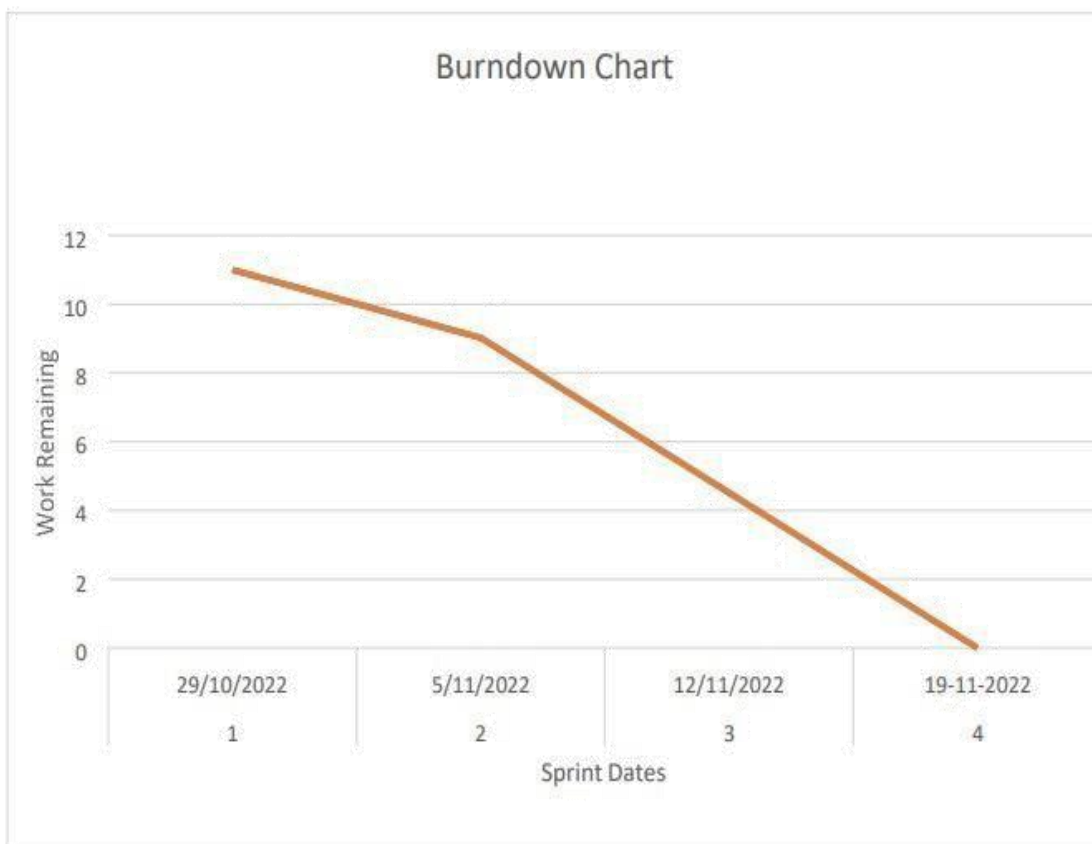
7.CODING & SOLUTION

7.1 Feature 1

1. Purchase Order System

   Purchase orders in the system and send them directly from system to vendors. 2. Customer Reporting

   Customer can report their problems.

3. Efficiency Manage Inventory

   Manage the Inventory & Expire Date is simple. Effective control and reduces losses due to waste.

4. Backorders

   Backorders for unreceived orders or partial unreceived orders.

5. Invoice

   Generate invoices for orders that can be emailed.

Source Code

LoginPage

```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-scale=1.0">
    <link rel="stylesheet" href="/static/login.css">
    <title>Smart Z</title>
</head>
<body>
    <div class="main">
        <div class="navbar">
            <div class="icon">
                <h2 class="logo">Smart Z</h2>
            </div>

            <div class="menu">
                <ul>
                    <li><a href="#">HOME</a></li>
                    <li><a href="#">ABOUT</a></li>

                </ul>
            </div>

            <div class="search">
                <input class="srch" type="search" name="" placeholder="Type to search">
                <a href="#"><button class="btn">Search</button></a>
            </div>

        </div>

        <div class="content">
            <h1>Smart Fashion <br><span>Application</span></h1>

            <div class="form">
                <h2>SMART LOGIN</h2>
                <form action="/login" method="post">
                <input type="text"    name="username"    placeholder="Enter Username Here">
                <input type="password" name="password" placeholder="Enter Password here">
                <button  type="submit" class="btnn"><a href="#">Login</a></button>

                <p class="link">Don't have an account<br>
```

```html
        <a href="register.html">Sign up </a> here</a></p>

        </form>

      </div>
    </div>
  </div>

</body>
</html>
```

SignUp Page

```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-scale=1.0">
    <link rel="stylesheet" href="/static/register.css">
    <title>Smart Z</title>
</head>
<body>

    <div class="main">
      <div class="navbar">
        <div class="icon">
          <h2 class="logo">Smart Z</h2>
        </div>

        <div class="menu">
          <ul>
            <li><a href="#">HOME</a></li>
            <li><a href="#">ABOUT</a></li>

          </ul>
        </div>

        <div class="search">
          <input class="srch" type="search" name="" placeholder="Type to search">
          <a href="#"><button class="btn">Search</button></a>
        </div>

      </div>
```

```html
    <div class="content">
      <h1>Smart Fashion <br><span>Application</span></h1>

        <div class="form">
          <h2>SMART REGISTER</h2>
          <form action="/register" method="post">
          <input type="text"    name="username"    placeholder="Username">
          <input type="email"   name="email"    placeholder="Email id">
          <input type="password" name="password" placeholder="Password">
          <button type="submit" class="btnn">REGISTER</button>

          <p class="link">Already have an account<br>
          <a href="login.html">Log in</a> here</a></p>
          </form>

      </div>
    </div>
  </div>

</body>
</html>
```

Homepage.html

```html
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="utf-8" />
<title>Smart Fashion Shop</title>
<meta content="width=device-width, initial-scale=1.0" name="viewport" />

<!-- Favicon -->
<link href="images/favicon.ico" rel="icon" />

<!-- Google Web Fonts -->
<link rel="preconnect" href="https://fonts.gstatic.com" />
<link
  href="https://fonts.googleapis.com/css2?family=Roboto:wght@400;500;700&display=swap"
  rel="stylesheet"
 />

<!-- Font Awesome -->
<link
  href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/5.10.0/css/all.min.css"
  rel="stylesheet"
```

```
/>

<!-- Libraries Stylesheet -->
<link href="lib/animate/animate.min.css" rel="stylesheet" />
<link href="lib/owlcarousel/assets/owl.carousel.min.css" rel="stylesheet" />

<!-- Customized Bootstrap Stylesheet -->
<link
    href="https://image-bucket-ibm2022.s3.jp-tok.cloud-object-
storage.appdomain.cloud/style.css"
    rel="stylesheet"
  />
</head>

<body>
<script>
window.watsonAssistantChatOptions = {
    integrationID: '67a8db3c-d47c-408e-837a-d043e2b821fb', // The ID of this integration.
    region: 'eu-gb', // The region your integration is hosted in.
    serviceInstanceID: 'e68af8dc-bb03-435b-97a3-a734158d289d', // 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>
<!-- Navbar Start -->
<div class="container-fluid bg-dark mb-30">
<div class="row px-xl-5">
<div class="col-lg-3 d-none d-lg-block">
<a
        class="btn d-flex align-items-center justify-content-between bg-primary w-100"
        data-toggle="collapse"
        href="#navbar-vertical"
        style="height: 65px; padding: 0 30px"
>
<h6 class="text-dark m-0">
<i class="fa fa-bars mr-2"></i>Categories
```

```html
</h6>
<i class="fa fa-angle-down text-dark"></i>
</a>
<nav
        class="collapse position-absolute navbar navbar-vertical navbar-light align-items-start p-
0 bg-light"
        id="navbar-vertical"
        style="width: calc(100% - 30px); z-index: 999"
>
<div class="navbar-nav w-100">
<div class="nav-item dropdown dropright">
<a
        href="#"
        class="nav-link dropdown-toggle"
        data-toggle="dropdown"
>Dresses <i class="fa fa-angle-right float-right mt-1"></i
></a>
<div
        class="dropdown-menu position-absolute rounded-0 border-0 m-0"
>
<a href="" class="dropdown-item">Men's Dresses</a>
<a href="" class="dropdown-item">Women's Dresses</a>
<a href="" class="dropdown-item">Baby's Dresses</a>
</div>
</div>
<a href="" class="nav-item nav-link">Shirts</a>
<a href="" class="nav-item nav-link">Jeans</a>
<a href="" class="nav-item nav-link">Swimwear</a>
<a href="" class="nav-item nav-link">Sleepwear</a>
<a href="" class="nav-item nav-link">Sportswear</a>
<a href="" class="nav-item nav-link">Jumpsuits</a>
<a href="" class="nav-item nav-link">Blazers</a>
<a href="" class="nav-item nav-link">Jackets</a>
<a href="" class="nav-item nav-link">Shoes</a>
</div>
</nav>
</div>
<div class="col-lg-9">
<nav
        class="navbar navbar-expand-lg bg-dark navbar-dark py-3 py-lg-0 px-0"
>
<a href="" class="text-decoration-none d-block d-lg-none">
<span class="h1 text-uppercase text-dark bg-light px-2"
>Smart</span
>
<span class="h1 text-uppercase text-light bg-primary px-2 ml-n1"
```

```html
>Shop</span
>
</a>
<button
        type="button"
        class="navbar-toggler"
        data-toggle="collapse"
        data-target="#navbarCollapse"
>
<span class="navbar-toggler-icon"></span>
</button>
<div
        class="collapse navbar-collapse justify-content-between"
        id="navbarCollapse"
>
<div class="navbar-nav mr-auto py-0">
<a href="index.html" class="nav-item nav-link active">Home</a>
<a href="shop.html" class="nav-item nav-link">Shop</a>
<a href="cart.html" class="nav-item nav-link">Shopping Cart</a>
<a href="checkout.html" class="nav-item nav-link">Checkout</a>
</div>
<div class="navbar-nav ml-auto py-0 d-none d-lg-block">
<a href="" class="btn px-0">
<i class="fas fa-heart text-primary"></i>
<span
        class="badge text-secondary border border-secondary rounded-circle"
        style="padding-bottom: 2px"
>0</span
>
</a>
<a href="" class="btn px-0 ml-3">
<i class="fas fa-shopping-cart text-primary"></i>
<span
        class="badge text-secondary border border-secondary rounded-circle"
        style="padding-bottom: 2px"
>0</span
>
</a>
</div>
</div>
</nav>
</div>
</div>
</div>
<!-- Navbar End -->
```

```html
<!-- Topbar Start -->
<div class="container-fluid">
<div class="row align-items-center py-3 px-xl-5 d-none d-lg-flex">
<div class="col-lg-4">
<a href="" class="text-decoration-none">
<span class="h1 text-uppercase text-primary bg-dark px-2"
>Smart Fashion</span
>
</a>
</div>
<div class="col-lg-4 col-6 text-left">
<form action="">
<div class="input-group">
<input
        type="text"
        class="form-control"
        placeholder="Search for products"
      />
<div class="input-group-append">
<span class="input-group-text bg-transparent text-primary">
<i class="fa fa-search"></i>
</span>
</div>
</div>
</form>
</div>
<div class="col-lg-4 col-6 text-right">
<p class="m-0">Customer Service</p>
<h5 class="m-0">+012 345 6789</h5>
</div>
</div>
</div>
<!-- Topbar End -->

<!-- Carousel Start -->
<div class="container-fluid mb-3">
<div class="row px-xl-5">
<div class="col-lg-8">
<div
      id="header-carousel"
      class="carousel slide carousel-fade mb-30 mb-lg-0"
      data-ride="carousel"
>
<ol class="carousel-indicators">
<li
        data-target="#header-carousel"
```

```html
            data-slide-to="0"
            class="active"
></li>
<li data-target="#header-carousel" data-slide-to="1"></li>
<li data-target="#header-carousel" data-slide-to="2"></li>
</ol>
<div class="carousel-inner">
<div
            class="carousel-item position-relative active"
            style="height: 430px"
>
<img
            class="position-absolute w-100 h-100"
            src="static/images/carousel-1.jpg"
            style="object-fit: cover"
          />
<div
            class="carousel-caption d-flex flex-column align-items-center justify-content-center"
>
<div class="p-3" style="max-width: 700px">
<h1
            class="display-4 text-white mb-3 animate__animated animate__fadeInDown"
>
            Men Fashion
</h1>
<p class="mx-md-5 px-5 animate__animated animate__bounceIn">
            Lorem rebum magna amet lorem magna erat diam stet. Sadips
            duo stet amet amet ndiam elitr ipsum diam
</p>
<a
            class="btn btn-outline-light py-2 px-4 mt-3 animate__animated
animate__fadeInUp"
            href="#"
>Shop Now</a>
>
</div>
</div>
</div>
<div
        class="carousel-item position-relative"
        style="height: 430px"
>
<img
            class="position-absolute w-100 h-100"
            src="static/images/carousel-2.jpg"
            style="object-fit: cover"
```

```
              />
<div
              class="carousel-caption d-flex flex-column align-items-center justify-content-center"
>
<div class="p-3" style="max-width: 700px">
<h1
              class="display-4 text-white mb-3 animate__animated animate__fadeInDown"
>
              Women Fashion
</h1>
<p class="mx-md-5 px-5 animate__animated animate__bounceIn">
              Lorem rebum magna amet lorem magna erat diam stet. Sadips
              duo stet amet amet ndiam elitr ipsum diam
</p>
<a
              class="btn btn-outline-light py-2 px-4 mt-3 animate__animated
animate__fadeInUp"
              href="#"
>Shop Now</a
>
</div>
</div>
</div>
<div
              class="carousel-item position-relative"
              style="height: 430px"
>
<img
              class="position-absolute w-100 h-100"
              src="static/images/carousel-3.jpg"
              style="object-fit: cover"
            />
<div
              class="carousel-caption d-flex flex-column align-items-center justify-content-center"
>
<div class="p-3" style="max-width: 700px">
<h1
              class="display-4 text-white mb-3 animate__animated animate__fadeInDown"
>
              Kids Fashion
</h1>
<p class="mx-md-5 px-5 animate__animated animate__bounceIn">
              Lorem rebum magna amet lorem magna erat diam stet. Sadips
              duo stet amet amet ndiam elitr ipsum diam
</p>
<a
```

```
                class="btn btn-outline-light py-2 px-4 mt-3 animate__animated
animate__fadeInUp"
                href="#"
>Shop Now</a
>
</div>
</div>
</div>
</div>
</div>
</div>
<div class="col-lg-4">
<div class="product-offer mb-30" style="height: 200px">
<img class="img-fluid" src="static/images/offer-1.jpg" alt="" />
<div class="offer-text">
<h6 class="text-white text-uppercase">Save 20%</h6>
<h3 class="text-white mb-3">Special Offer</h3>
<a href="" class="btn btn-primary">Shop Now</a>
</div>
</div>
<div class="product-offer mb-30" style="height: 200px">
<img class="img-fluid" src="static/images/offer-2.jpg" alt="" />
<div class="offer-text">
<h6 class="text-white text-uppercase">Save 20%</h6>
<h3 class="text-white mb-3">Special Offer</h3>
<a href="" class="btn btn-primary">Shop Now</a>
</div>
</div>
</div>
</div>
</div>
<!-- Carousel End -->

<!-- Products Start -->
<div class="container-fluid pt-5 pb-3">
<h2 class="section-title position-relative text-uppercase mx-xl-5 mb-4">
<span class="bg-secondary pr-3">Featured Products</span>
</h2>
<div class="row px-xl-5">
<div class="col-lg-3 col-md-4 col-sm-6 pb-1">
<div class="product-item bg-light mb-4">
<div class="product-img position-relative overflow-hidden">
<img
                class="img-fluid w-100"
                src="static/images/product-1.jpg"
                alt=""
```

```
          />
<div class="product-action">
<a class="btn btn-outline-dark btn-square" href=""
><i class="fa fa-shopping-cart"></i
></a>
<a class="btn btn-outline-dark btn-square" href=""
><i class="far fa-heart"></i
></a>
<a class="btn btn-outline-dark btn-square" href=""
><i class="fa fa-sync-alt"></i
></a>
<a class="btn btn-outline-dark btn-square" href=""
><i class="fa fa-search"></i
></a>
</div>
</div>
<div class="text-center py-4">
<a class="h6 text-decoration-none text-truncate" href=""
>Product Name Goes Here</a
>
<div
          class="d-flex align-items-center justify-content-center mt-2"
>
<h5>$123.00</h5>
<h6 class="text-muted ml-2"><del>$123.00</del></h6>
</div>
<div
          class="d-flex align-items-center justify-content-center mb-1"
>
<small class="fa fa-star text-primary mr-1"></small>
<small class="fa fa-star text-primary mr-1"></small>
<small class="fa fa-star text-primary mr-1"></small>
<small class="fa fa-star text-primary mr-1"></small>
<small class="fa fa-star text-primary mr-1"></small>
<small>(99)</small>
</div>
</div>
</div>
</div>
<div class="col-lg-3 col-md-4 col-sm-6 pb-1">
<div class="product-item bg-light mb-4">
<div class="product-img position-relative overflow-hidden">
<img
          class="img-fluid w-100"
          src="static/images/product-2.jpg"
          alt=""
```

```html
        />
<div class="product-action">
<a class="btn btn-outline-dark btn-square" href=""
><i class="fa fa-shopping-cart"></i
></a>
<a class="btn btn-outline-dark btn-square" href=""
><i class="far fa-heart"></i
></a>
<a class="btn btn-outline-dark btn-square" href=""
><i class="fa fa-sync-alt"></i
></a>
<a class="btn btn-outline-dark btn-square" href=""
><i class="fa fa-search"></i
></a>
</div>
</div>
<div class="text-center py-4">
<a class="h6 text-decoration-none text-truncate" href=""
>Product Name Goes Here</a
>
<div
        class="d-flex align-items-center justify-content-center mt-2"
>
<h5>$123.00</h5>
<h6 class="text-muted ml-2"><del>$123.00</del></h6>
</div>
<div
        class="d-flex align-items-center justify-content-center mb-1"
>
<small class="fa fa-star text-primary mr-1"></small>
<small class="fa fa-star text-primary mr-1"></small>
<small class="fa fa-star text-primary mr-1"></small>
<small class="fa fa-star text-primary mr-1"></small>
<small class="fa fa-star-half-alt text-primary mr-1"></small>
<small>(99)</small>
</div>
</div>
</div>
</div>
<div class="col-lg-3 col-md-4 col-sm-6 pb-1">
<div class="product-item bg-light mb-4">
<div class="product-img position-relative overflow-hidden">
<img
        class="img-fluid w-100"
        src="static/images/product-3.jpg"
        alt=""
```

```
        />
<div class="product-action">
<a class="btn btn-outline-dark btn-square" href=""
><i class="fa fa-shopping-cart"></i
></a>
<a class="btn btn-outline-dark btn-square" href=""
><i class="far fa-heart"></i
></a>
<a class="btn btn-outline-dark btn-square" href=""
><i class="fa fa-sync-alt"></i
></a>
<a class="btn btn-outline-dark btn-square" href=""
><i class="fa fa-search"></i
></a>
</div>
</div>
<div class="text-center py-4">
<a class="h6 text-decoration-none text-truncate" href=""
>Product Name Goes Here</a
>
<div
        class="d-flex align-items-center justify-content-center mt-2"
>
<h5>$123.00</h5>
<h6 class="text-muted ml-2"><del>$123.00</del></h6>
</div>
<div
        class="d-flex align-items-center justify-content-center mb-1"
>
<small class="fa fa-star text-primary mr-1"></small>
<small class="fa fa-star text-primary mr-1"></small>
<small class="fa fa-star text-primary mr-1"></small>
<small class="fa fa-star-half-alt text-primary mr-1"></small>
<small class="far fa-star text-primary mr-1"></small>
<small>(99)</small>
</div>
</div>
</div>
</div>
<div class="col-lg-3 col-md-4 col-sm-6 pb-1">
<div class="product-item bg-light mb-4">
<div class="product-img position-relative overflow-hidden">
<img
        class="img-fluid w-100"
        src="static/images/product-4.jpg"
        alt=""
```

```
        />
<div class="product-action">
<a class="btn btn-outline-dark btn-square" href=""
><i class="fa fa-shopping-cart"></i
></a>
<a class="btn btn-outline-dark btn-square" href=""
><i class="far fa-heart"></i
></a>
<a class="btn btn-outline-dark btn-square" href=""
><i class="fa fa-sync-alt"></i
></a>
<a class="btn btn-outline-dark btn-square" href=""
><i class="fa fa-search"></i
></a>
</div>
</div>
<div class="text-center py-4">
<a class="h6 text-decoration-none text-truncate" href=""
>Product Name Goes Here</a
>
<div
        class="d-flex align-items-center justify-content-center mt-2"
>
<h5>$123.00</h5>
<h6 class="text-muted ml-2"><del>$123.00</del></h6>
</div>
<div
        class="d-flex align-items-center justify-content-center mb-1"
>
<small class="fa fa-star text-primary mr-1"></small>
<small class="fa fa-star text-primary mr-1"></small>
<small class="fa fa-star text-primary mr-1"></small>
<small class="far fa-star text-primary mr-1"></small>
<small class="far fa-star text-primary mr-1"></small>
<small>(99)</small>
</div>
</div>
</div>
</div>
<div class="col-lg-3 col-md-4 col-sm-6 pb-1">
<div class="product-item bg-light mb-4">
<div class="product-img position-relative overflow-hidden">
<img
        class="img-fluid w-100"
        src="static/images/product-5.jpg"
        alt=""
```

```
        />
<div class="product-action">
<a class="btn btn-outline-dark btn-square" href=""
><i class="fa fa-shopping-cart"></i
></a>
<a class="btn btn-outline-dark btn-square" href=""
><i class="far fa-heart"></i
></a>
<a class="btn btn-outline-dark btn-square" href=""
><i class="fa fa-sync-alt"></i
></a>
<a class="btn btn-outline-dark btn-square" href=""
><i class="fa fa-search"></i
></a>
</div>
</div>
<div class="text-center py-4">
<a class="h6 text-decoration-none text-truncate" href=""
>Product Name Goes Here</a
>
<div
        class="d-flex align-items-center justify-content-center mt-2"
>
<h5>$123.00</h5>
<h6 class="text-muted ml-2"><del>$123.00</del></h6>
</div>
<div
        class="d-flex align-items-center justify-content-center mb-1"
>
<small class="fa fa-star text-primary mr-1"></small>
<small class="fa fa-star text-primary mr-1"></small>
<small class="fa fa-star text-primary mr-1"></small>
<small class="fa fa-star text-primary mr-1"></small>
<small class="fa fa-star text-primary mr-1"></small>
<small>(99)</small>
</div>
</div>
</div>
</div>
<div class="col-lg-3 col-md-4 col-sm-6 pb-1">
<div class="product-item bg-light mb-4">
<div class="product-img position-relative overflow-hidden">
<img
        class="img-fluid w-100"
        src="static/images/product-6.jpg"
        alt=""
```

```
        />
<div class="product-action">
<a class="btn btn-outline-dark btn-square" href=""
><i class="fa fa-shopping-cart"></i
></a>
<a class="btn btn-outline-dark btn-square" href=""
><i class="far fa-heart"></i
></a>
<a class="btn btn-outline-dark btn-square" href=""
><i class="fa fa-sync-alt"></i
></a>
<a class="btn btn-outline-dark btn-square" href=""
><i class="fa fa-search"></i
></a>
</div>
</div>
<div class="text-center py-4">
<a class="h6 text-decoration-none text-truncate" href=""
>Product Name Goes Here</a
>
<div
        class="d-flex align-items-center justify-content-center mt-2"
>
<h5>$123.00</h5>
<h6 class="text-muted ml-2"><del>$123.00</del></h6>
</div>
<div
        class="d-flex align-items-center justify-content-center mb-1"
>
<small class="fa fa-star text-primary mr-1"></small>
<small class="fa fa-star text-primary mr-1"></small>
<small class="fa fa-star text-primary mr-1"></small>
<small class="fa fa-star text-primary mr-1"></small>
<small class="fa fa-star-half-alt text-primary mr-1"></small>
<small>(99)</small>
</div>
</div>
</div>
</div>
<div class="col-lg-3 col-md-4 col-sm-6 pb-1">
<div class="product-item bg-light mb-4">
<div class="product-img position-relative overflow-hidden">
<img
        class="img-fluid w-100"
        src="static/images/product-7.jpg"
        alt=""
```

```
                />
<div class="product-action">
<a class="btn btn-outline-dark btn-square" href=""
><i class="fa fa-shopping-cart"></i
></a>
<a class="btn btn-outline-dark btn-square" href=""
><i class="far fa-heart"></i
></a>
<a class="btn btn-outline-dark btn-square" href=""
><i class="fa fa-sync-alt"></i
></a>
<a class="btn btn-outline-dark btn-square" href=""
><i class="fa fa-search"></i
></a>
</div>
</div>
<div class="text-center py-4">
<a class="h6 text-decoration-none text-truncate" href=""
>Product Name Goes Here</a
>
<div
        class="d-flex align-items-center justify-content-center mt-2"
>
<h5>$123.00</h5>
<h6 class="text-muted ml-2"><del>$123.00</del></h6>
</div>
<div
        class="d-flex align-items-center justify-content-center mb-1"
>
<small class="fa fa-star text-primary mr-1"></small>
<small class="fa fa-star text-primary mr-1"></small>
<small class="fa fa-star text-primary mr-1"></small>
<small class="fa fa-star-half-alt text-primary mr-1"></small>
<small class="far fa-star text-primary mr-1"></small>
<small>(99)</small>
</div>
</div>
</div>
</div>
<div class="col-lg-3 col-md-4 col-sm-6 pb-1">
<div class="product-item bg-light mb-4">
<div class="product-img position-relative overflow-hidden">
<img
        class="img-fluid w-100"
        src="static/images/product-8.jpg"
        alt=""
```

```
                />
<div class="product-action">
<a class="btn btn-outline-dark btn-square" href=""
><i class="fa fa-shopping-cart"></i
></a>
<a class="btn btn-outline-dark btn-square" href=""
><i class="far fa-heart"></i
></a>
<a class="btn btn-outline-dark btn-square" href=""
><i class="fa fa-sync-alt"></i
></a>
<a class="btn btn-outline-dark btn-square" href=""
><i class="fa fa-search"></i
></a>
</div>
</div>
<div class="text-center py-4">
<a class="h6 text-decoration-none text-truncate" href=""
>Product Name Goes Here</a
>
<div
        class="d-flex align-items-center justify-content-center mt-2"
>
<h5>$123.00</h5>
<h6 class="text-muted ml-2"><del>$123.00</del></h6>
</div>
<div
        class="d-flex align-items-center justify-content-center mb-1"
>
<small class="fa fa-star text-primary mr-1"></small>
<small class="fa fa-star text-primary mr-1"></small>
<small class="fa fa-star text-primary mr-1"></small>
<small class="far fa-star text-primary mr-1"></small>
<small class="far fa-star text-primary mr-1"></small>
<small>(99)</small>
</div>
</div>
</div>
</div>
</div>
<!-- Products End -->

<!-- Footer Start -->
<div class="container-fluid bg-dark text-secondary mt-5 pt-5">
<div class="row px-xl-5 pt-5">
```

```
<div class="col-lg-4 col-md-12 mb-5 pr-3 pr-xl-5">
<h5 class="text-secondary text-uppercase mb-4">Get In Touch</h5>
<p class="mb-4">
        No dolore ipsum accusam no lorem. Invidunt sed clita kasd clita et
        et dolor sed dolor. Rebum tempor no vero est magna amet no
</p>
<p class="mb-2">
<i class="fa fa-map-marker-alt text-primary mr-3"></i>123 Street,
        New York, USA
</p>
<p class="mb-2">
<i class="fa fa-envelope text-primary mr-3"></i>info@example.com
</p>
<p class="mb-0">
<i class="fa fa-phone-alt text-primary mr-3"></i>+012 345 67890
</p>
</div>
<div class="col-lg-8 col-md-12">
<div class="row">
<div class="col-md-4 mb-5">
<h5 class="text-secondary text-uppercase mb-4">Quick Shop</h5>
<div class="d-flex flex-column justify-content-start">
<a class="text-secondary mb-2" href="#"
><i class="fa fa-angle-right mr-2"></i>Home</a
>
<a class="text-secondary mb-2" href="#"
><i class="fa fa-angle-right mr-2"></i>Our Shop</a
>
<a class="text-secondary mb-2" href="#"
><i class="fa fa-angle-right mr-2"></i>Shop Detail</a
>
<a class="text-secondary mb-2" href="#"
><i class="fa fa-angle-right mr-2"></i>Shopping Cart</a
>
<a class="text-secondary mb-2" href="#"
><i class="fa fa-angle-right mr-2"></i>Checkout</a
>
<a class="text-secondary" href="#"
><i class="fa fa-angle-right mr-2"></i>Contact Us</a
>
</div>
</div>
</div>
</div>
</div>
<div
```

```
        class="row border-top mx-xl-5 py-4"
        style="border-color: rgba(256, 256, 256, 0.1) !important"
></div>
</div>
<!-- Footer End -->

<!-- Back to Top -->

<a href="#" class="btn btn-primary back-to-top"
><i class="fa fa-angle-double-up"></i
></a>

<!-- JavaScript Libraries -->
<script src="https://code.jquery.com/jquery-3.4.1.min.js"></script>
<script
src="https://stackpath.bootstrapcdn.com/bootstrap/4.4.1/js/bootstrap.bundle.min.js"></script>
<script src="lib/easing/easing.min.js"></script>
<script src="lib/owlcarousel/owl.carousel.min.js"></script>

<!-- Contact Javascript File -->
<script src="mail/jqBootstrapValidation.min.js"></script>
<script src="mail/contact.js"></script>

<!-- Template Javascript -->
<script src="js/main.js"></script></body></html>
```
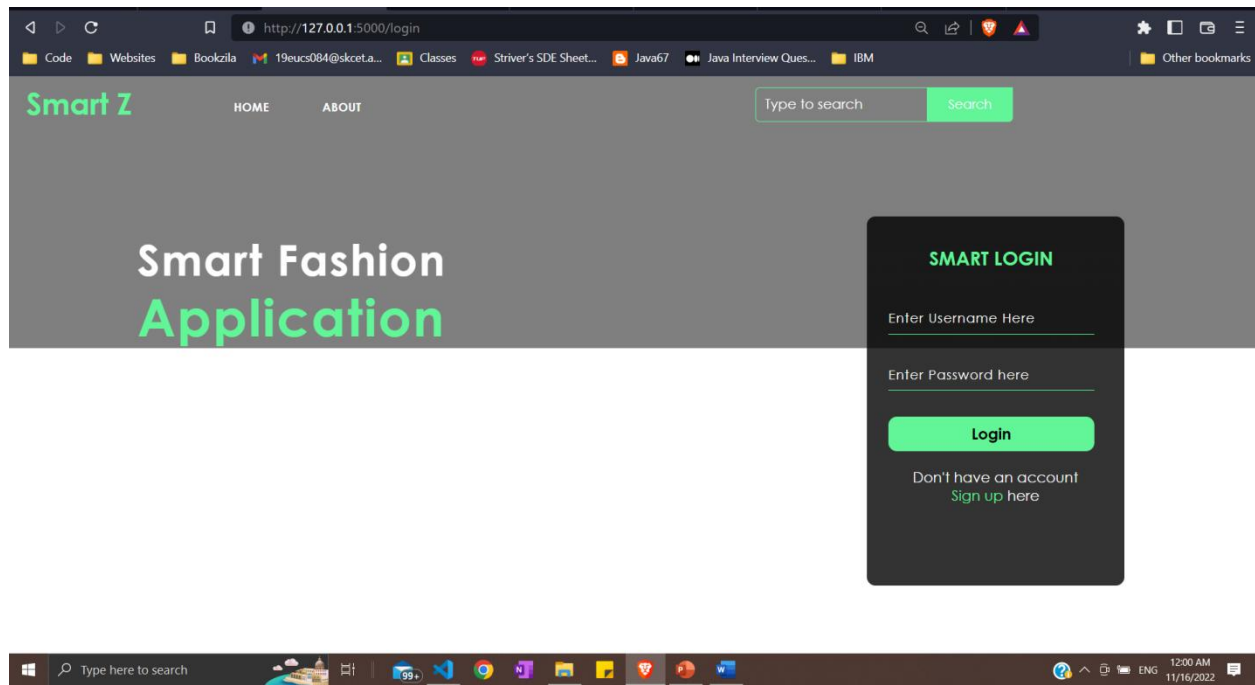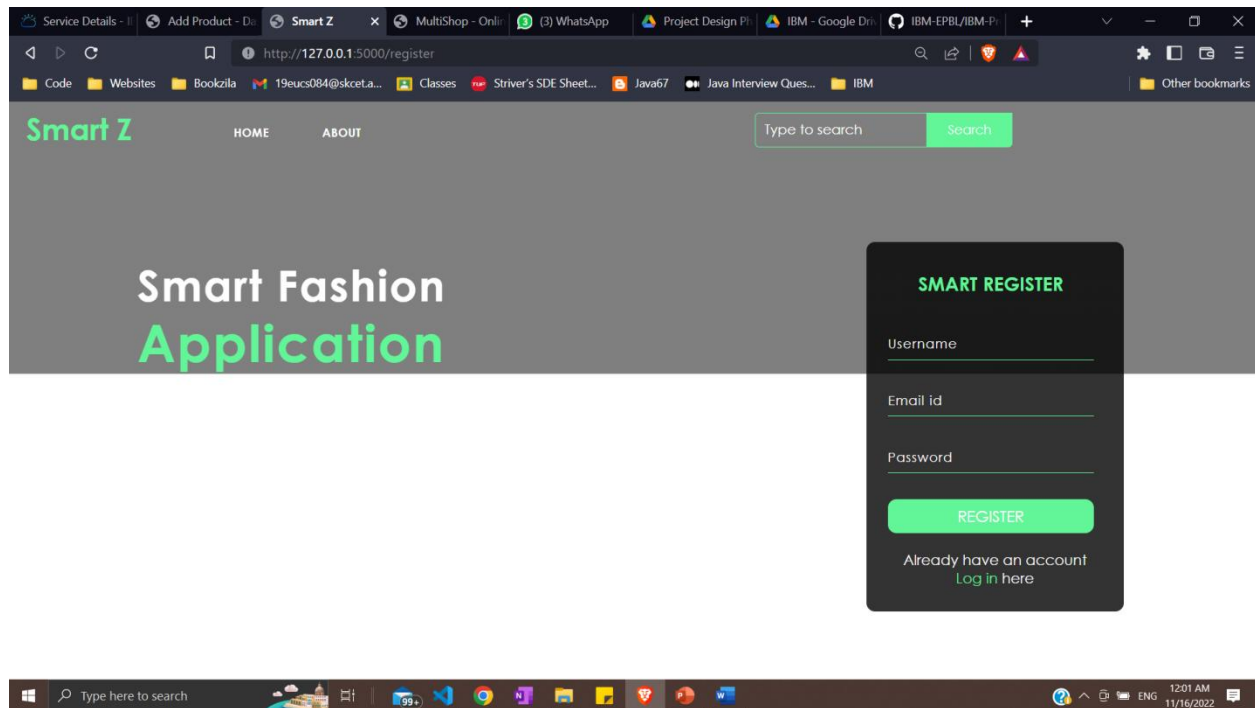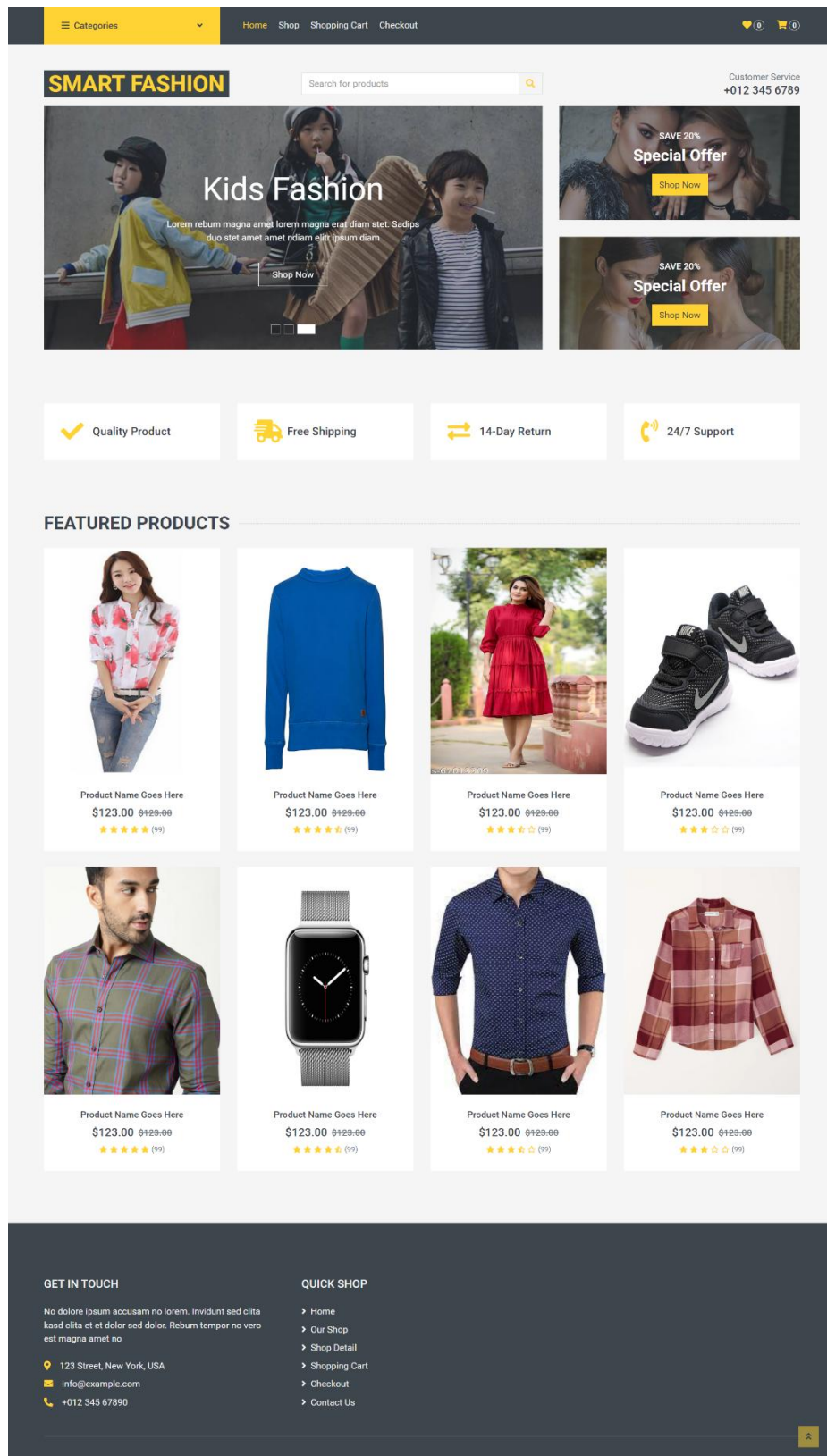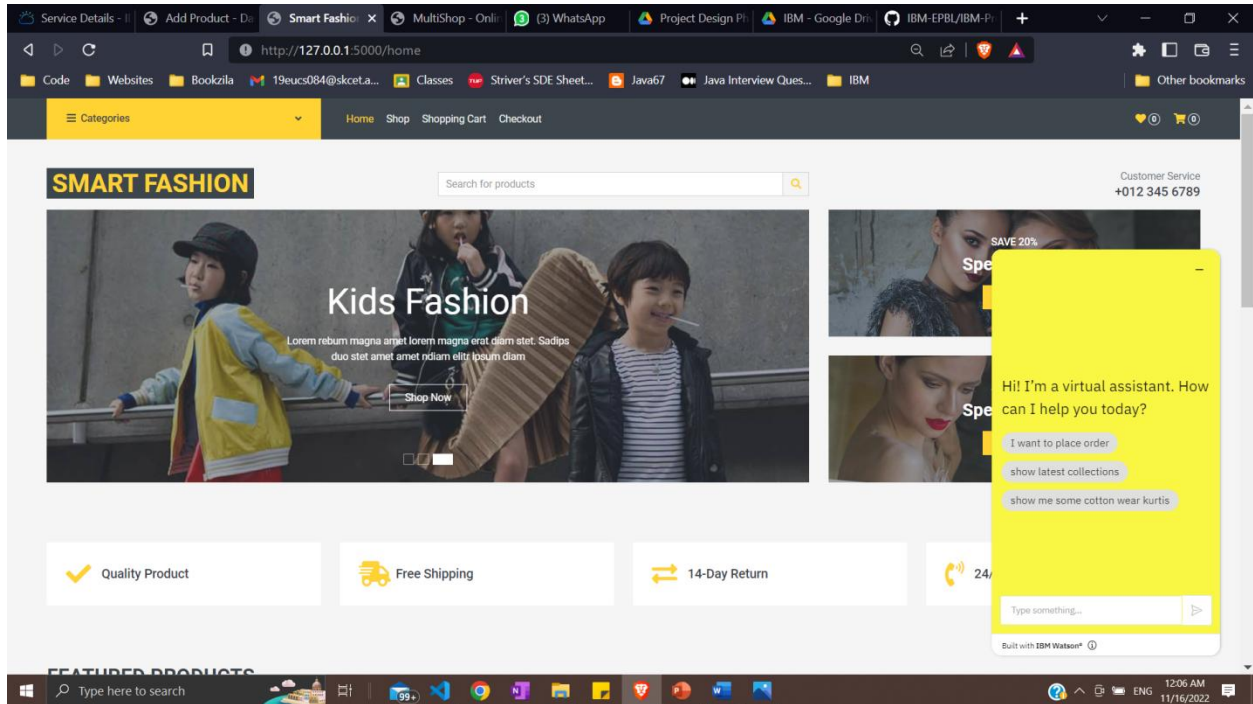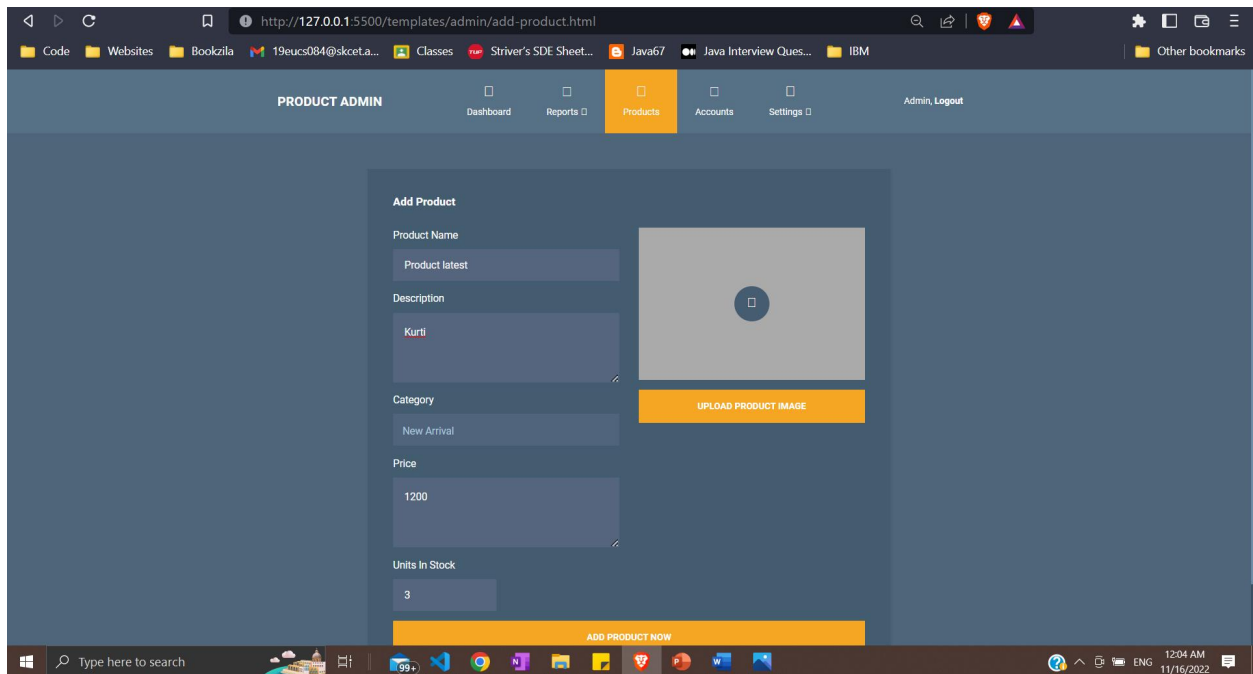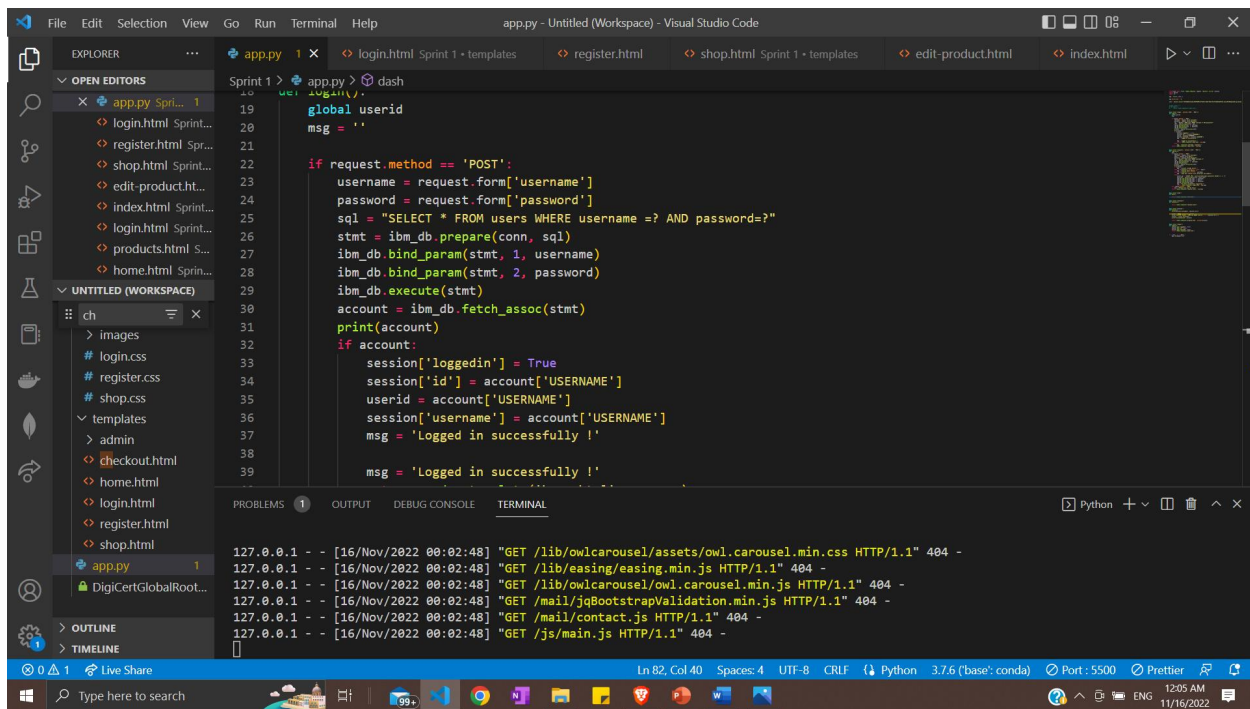
8. TESTING

LOGIN PAGE

SIGNUP PAGE

HOME PAGE

CHATBOT

ADD PRODUCTPAGE

CODE PAGE

8.1 Test Cases

				Date	03-Nov-22	
				Team ID	PNT2022TMID01360	
				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_OO1	Functional	Home Page	Verify user is able to see the Login/Signup popup when user clicked on My account button	None	1.Enter URL and click go 2.Click on My Account dropdown button 3.Verify login/Signup popup displayed or not	https://127.0.0.1:5000/
LoginPage_TC_OO2	UI	Home Page	Verify the UI elements in Login/Signup popup	Home	1.Enter URL and click go 2.Click on My Account dropdown button 3.Verify login/Signup 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	https://127.0.0.1:5000/
LoginPage_TC_OO3	Functional	Home page	Verify user is able to log into application with Valid credentials	Username and password	1.Enter URL (https://Trendzy.com/) and click 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: Pksc password: 123456
LoginPage_TC_OO4	Functional	Login page	Verify user is able to log into application with InValid credentials	Username and password	1.Enter URL(https://127.0.0.1:5000/) and click go 2.Click on My Account dropdown button 3.Enter InValid username/email in Email text box 4.Enter valid password in password text box 5.Click on login button	Username: pksc@gmail password: Testing123
LoginPage_TC_OO4	Functional	Login page	Verify user is able to log into application with InValid credentials	Login first	1.Enter URL(https://127.0.0.1:5000/) and click go 2.Click on My Account dropdown button 3.Enter Valid username/email in Email text box 4.Enter Invalid password in password text box 5.Click on login button	Username: pksc password: 1234567
LoginPage_TC_OO5	Functional	Login page	Verify user is able to log into application with InValid credentials	Login first	1.Enter URL(https://127.0.0.1:5000/)and click go 2.Click on My Account dropdown button 3.Enter InValid username/email in Email text box 4.Enter Invalid password in password text box 5.Click on login button	Username: pksc password: Testing123

Verify user is able to Buy products	Functional	order page	verify user is able to order products		user will buy the product in order page	user data
Verify user is get purchase conformation mail?	Functional	order page	verify user is able to get conformation mail	Report generation	user will get the mail Notification	email

9 RESULTS

9.1 Performance Metrics

- Accuracy

    The accuracy metric is one of the simplest Classification metrics to implement, and it can be determined as the number of correct predictions to the total number of predictions.

- Confusion Matrix

    A confusion matrix is a tabular representation of prediction outcomes of any binary classifier, which is used to describe the performance of the classification model on a set of test data when true values are known. The confusion matrix is simple to implement, but the terminologies used in this matrix might be confusing for beginners.

10.ADVANTAGES & DISADVANTAGES

Advantages

- Improved customer service

- Cloud-based solution

- Order Fulfillment

- Harness Customer Loyalty and Retention

- Helps move vehicles through the service bay quicker

- Mitigate Risks with Added Security

- Maximize Profit

Disadvantages

- System Clash

- Reduced Physical Audits

- No solution to improve or eliminate bottlenecks in the service cycle

11.CONCLUSION

This paper introduced the authors' design of a chatterbot for conversational commerce. The proposed design was created with the aim of improving user interaction in social media marketing and making social media marketing more effective utilizing the quick order method, however there should be further user research to investigate the effectiveness of the proposed design. Moreover, the implemented bot is limited to the smart fashio shopping system only, nadding the support for other shopping systems could increase the usage of chat-commerce bots. In addition, the system is limited to the data source shops, connecting the system to other data sources could enhance the user satisfaction for the recommendation system.

12. FUTURE SCOPE

- Collaboration with supply chain partners, coupled with a holistic approach to supply chain management, will be key to effective inventory management.

- The nature of globalization will change, impacting inventory deployment decisions dramatically.

13. APPENDIX

GitHub & Project Demo Link

GitHub Link: https://github.com/IBM-EPBL/IBM-Project-15237-1659595377
Project Demo Link:

https://drive.google.com/file/d/1JR3EK8q_vka4mq06lCDTdXs7jzDT2R0H/view?usp=share_link