

# **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.

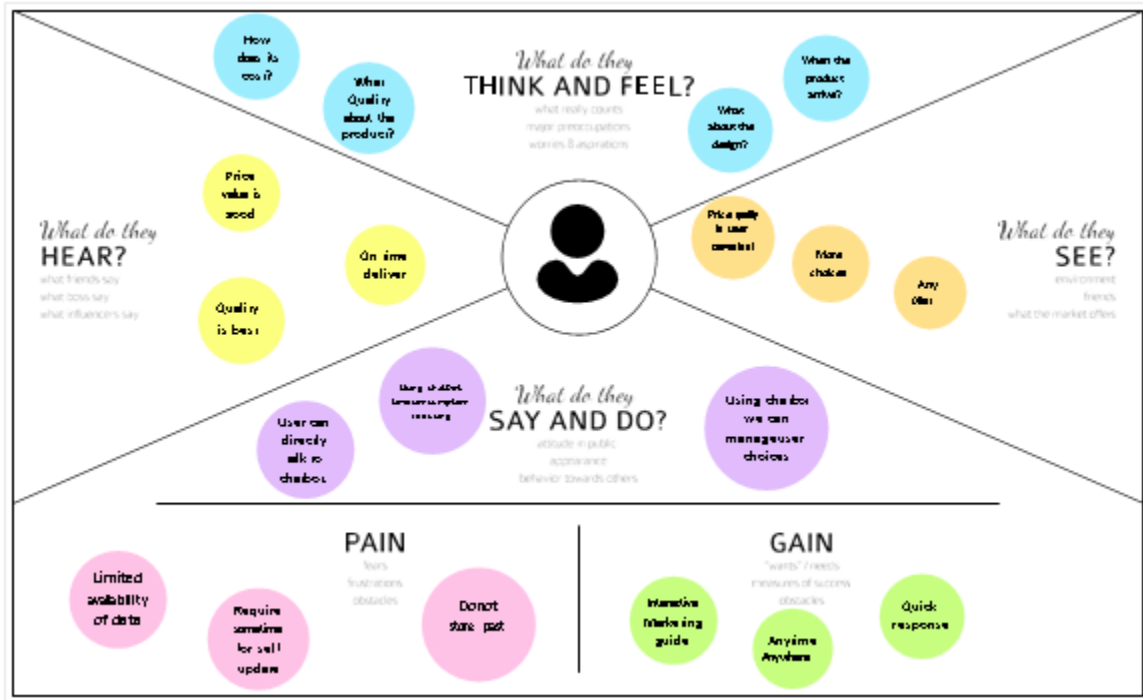
Problem Statement 4:

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 RECOMMENDER 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.



### Before you collaborate

A little bit of preparation goes a long way with this session. Here's what you need to do to get going.

10 minutes



#### Team gathering

Define who should participate in the session and send an invite. Share relevant information or pre-work ahead.



#### Set the goal

Think about the problem you'll be focusing on solving in the brainstorming session.



#### Learn how to use the facilitation tools

Use the Facilitation Superpowers to run a happy and productive session.

[Open article](#) →



### Define your problem statement

Unavailability of chatbots that are interactive enough to navigate the user to do whatever they want. The amount of toll a user has to go through to look for a product they desire for. Need for a more User-friendly interface. The main aim of the project is to develop a smart chatbot that is able to understand the needs of the user and recommend products of desire.

PROBLEM  
How might we [your problem statement]?



#### Key rules of brainstorming

To run a smooth and productive session

- Stay in topic.
- Defer judgment.
- Go for volume.
- Encourage wild ideas.
- Listen to others.
- If possible, be visual.



### Brainstorm

Write down any ideas that come to mind that address your problem statement.

10 minutes

TIP  
You can select a sticky note and hit the pencil (switch to edit) icon to start drawing!

#### RIYANA PARVEEN J

1. User friendly interface  
2. Easy to use  
3. Quick response time  
4. Personalized recommendations  
5. Seamless integration with social media

#### PARAMESHWARI B

1. User friendly interface  
2. Easy to use  
3. Quick response time  
4. Personalized recommendations  
5. Seamless integration with social media

#### SANDHYA B

1. User friendly interface  
2. Easy to use  
3. Quick response time  
4. Personalized recommendations  
5. Seamless integration with social media

#### SARANYA C

1. User friendly interface  
2. Easy to use  
3. Quick response time  
4. Personalized recommendations  
5. Seamless integration with social media

#### SURIYA JOTHS

1. User friendly interface  
2. Easy to use  
3. Quick response time  
4. Personalized recommendations  
5. Seamless integration with social media



### Group Ideas

Take turns sharing your ideas while clustering similar or related notes as you go. Once all sticky notes have been grouped, give each cluster a sentence-like label. If a cluster is bigger than six sticky notes, try and see if you can break it up into smaller sub-groups.

20 minutes

TIP  
Add color-coded tags to sticky notes to make it easier to find, browse, organize, and categorize important ideas as themes within your mural.

#### GROUP 1

#### GROUP 2



### 4 Prioritize

Your team should all be on the same page about what's important moving forward. Place your ideas on this grid to determine which ideas are important and which are feasible.

20 minutes

### After you collaborate

You can export the mural as an image or pdf to share with members of your company who might find it helpful.

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**Quick add-ons**

- Share the mural**  
Share a view link to the mural with stakeholders to keep them in the loop about the outcomes of the session.
- Export the mural**  
Export a copy of the mural as a PNG or PDF to attach to emails, include in slides, or save in your drive.

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**Keep moving forward**

- Strategy blueprint**  
Define the components of a new idea or strategy.  
[Open the template →](#)
- Customer experience journey map**  
Understand customer needs, motivations, and obstacles for an experience.  
[Open the template →](#)
- Strengths, weaknesses, opportunities & threats**  
Identify strengths, weaknesses, opportunities, and threats (SWOT) to develop a plan.  
[Open the template →](#)

[Share template feedback](#)

## 3.3 Proposed Solution

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

		<p>It can be done using a chatbot.</p> <p>Modules Used: □</p> <p>1. Admin</p> <p>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. □</p> <p>1. User</p> <p>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</p>
2.	Idea / Solution description	<p>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 and suggests available offers of the product.</p>

		The introduction of chatbot makes an interactive website and boosts the productivity of the product.
<b>3.</b>	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
<b>4.</b>	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.
<b>5.</b>	Business Model (Revenue Model)	There are many systems 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

Define CS, fit into CC	<b>1. CUSTOMER SEGMENT(S)</b> Age, gender, location, browsing habits, interests and even the devices we use, say a lot about our shopping habits. They influence what we buy, why we buy, and how often we spend money.	<b>6. CUSTOMER CONSTRAINTS</b> <ul style="list-style-type: none"> <li>Quality issues.</li> <li>Delivery and logistics</li> <li>Digital payment failures.</li> <li>Additional charges.</li> <li>Unclear return and guarantee policies</li> <li>Lack of security.</li> </ul>	<b>5. AVAILABLE SOLUTIONS</b> <ul style="list-style-type: none"> <li>Generally, the search bar option is available when a customer or user needs to find the desired product.</li> <li>However, occasionally this can lead to the user or customer finding a product that is unrelated to what they were looking for.</li> </ul>	Explore AS, differential
	<b>2. JOBS-TO-BE-DONE / PROBLEMS</b> <ul style="list-style-type: none"> <li>Navigating between various screens to make an online purchase. This one is the grumpy one.</li> <li>Typically, e-commerce features include searching for a user's product may take more time.</li> </ul>	<b>9. PROBLEM ROOT CAUSE</b> <ul style="list-style-type: none"> <li>Making an online purchase while navigating between numerous screens. The grumpy one is the one.</li> <li>When a customer visits your e-commerce website, they expect to easily and quickly locate what they're looking for.</li> </ul>	<b>7. BEHAVIOUR</b> <ul style="list-style-type: none"> <li>A key priority convenience.</li> <li>Simple access on all devices.</li> <li>Availability of omnichannel shopping</li> <li>Uncomplicated payment</li> <li>Quick and dependable shipping.</li> </ul>	

<b>3. TRIGGERS</b> <ul style="list-style-type: none"> <li>Utilize the personal touch.</li> <li>Encourage Loyalty</li> </ul>	<b>10. YOUR SOLUTION</b> <ul style="list-style-type: none"> <li>You can directly do your online shopping based on your choice without any search. It can be done by using a chatbot.</li> <li>User recommendations can be made by the chatbot depending on their interests.</li> <li>It may advertise their day's top specials and promotions.</li> <li>It will keep a database of the customer's information and orders.</li> <li>If the order is accepted, the chatbot will</li> </ul>	<b>8. CHANNELS OF BEHAVIOUR</b> <b>ONLINE</b> <ul style="list-style-type: none"> <li>In order to purchase a specific commodity or service, the customer must first register online at the relevant website.</li> <li>A customer adds a good or service to their "shopping cart" when they like it.</li> </ul> <b>OFFLINE</b> <ul style="list-style-type: none"> <li>Warehouseman collects products specified in an order.</li> </ul>
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<p><b>4. EMOTIONS: BEFORE / AFTER</b></p> <p>BEFORE</p> <p>The search bar option is available when a customer or user needs to find the desired product.</p> <p>AFTER</p> <p>Chatbot is like talking to a human which may make it easier for people to find the product.</p>	<p>notify the customer.</p>	
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## 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 :- <input type="checkbox"/> Name <input type="checkbox"/> Gender <input type="checkbox"/> Age <input type="checkbox"/> Mobile number <input type="checkbox"/> Address
FR-5	Chatbot (Watson Assistant)	Get the Information about  <input type="checkbox"/> Search Products  <input type="checkbox"/> View Offers  <input type="checkbox"/> Discounts



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

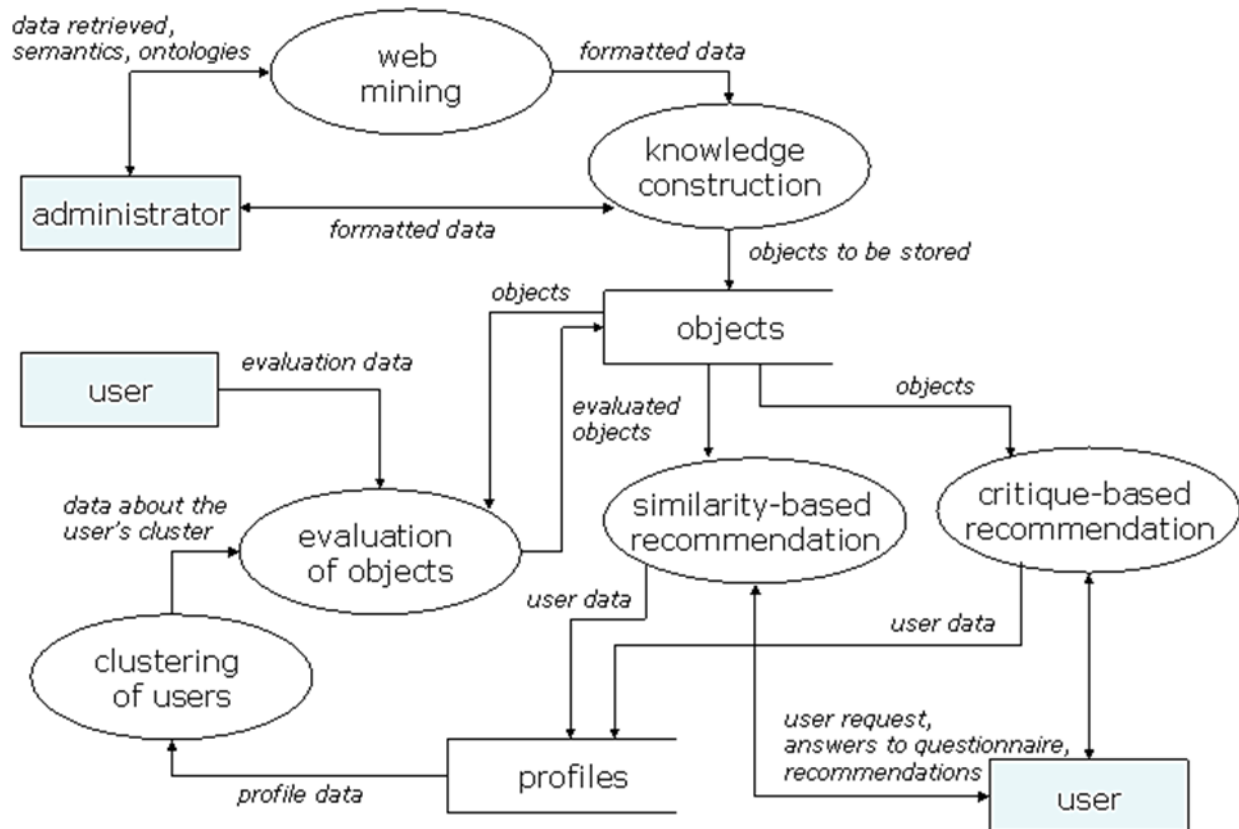
## 4.2 Non-Functional requirements

NFR No.	Non-Functional Requirement (Epic)	Description
<b>NFR-1</b>	<b>usability</b>	<p>The application will be designed for making Good HUMAN – COMPUTER Interaction in such a way,</p> <p>Any user can easily navigate</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> User Can easily View and understandable</li> <li><input type="checkbox"/> Comfort while making Place order</li> <li><input type="checkbox"/> Comfort with tracking facilities <ul style="list-style-type: none"> <li><input type="checkbox"/> Easy and Compact design</li> </ul> </li> </ul> <p>These all are about to achieve a defined goal Effectively, Efficiently and Satisfactorily.</p>
<b>NFR-2</b>	<b>Security</b>	<p>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</p>

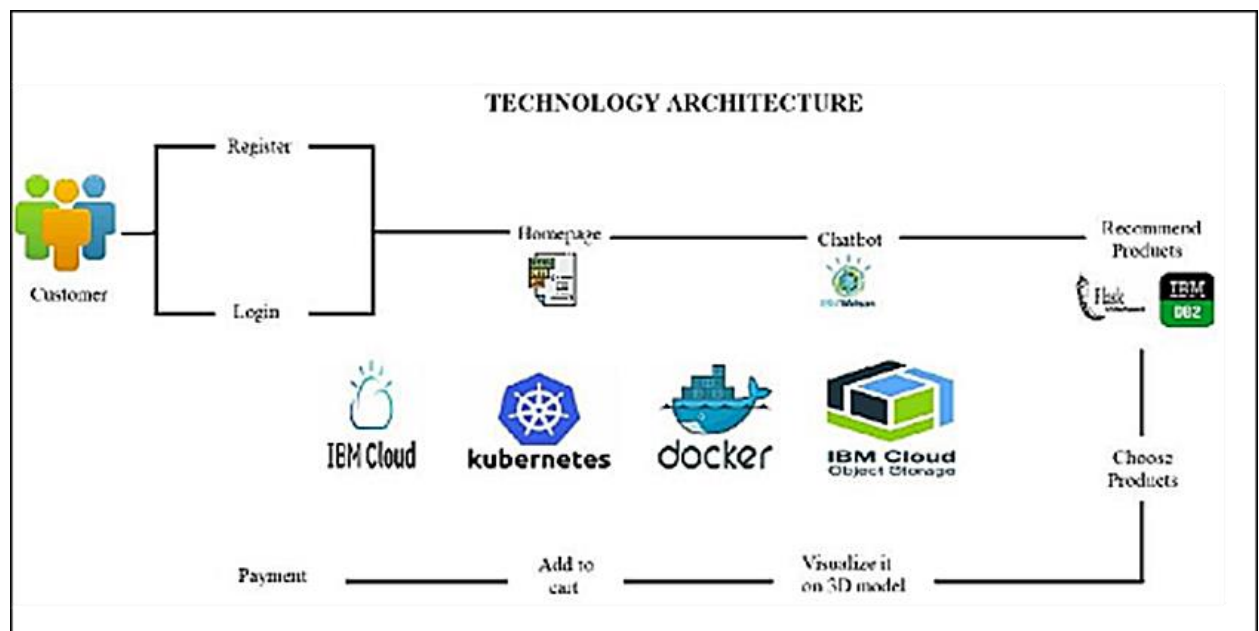
		address, email, Phone number etc., will be kept as more secure.
<b>NFR-3</b>	<b>Reliability</b>	Ability of software to perform critical tasks like Collection and Securing customer Data, Providing Gateway Payment to function correctly in a given Environment, for a Particular amount of time.
<b>NFR-4</b>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

## 5.PROJECT DESIGN

## 5.1 Data Flow Diagrams



## 5.2 Solution & Technical Architecture



### 5.3 User Stories

<b>User Type</b>	<b>Functional Requirement (Epic)</b>	<b>User Story Number</b>	<b>User Story / Task</b>	<b>Acceptance criteria</b>	<b>Priority</b>	<b>Release</b>
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 Facebook	I can register & access the dashboard with Gmail 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	I can login into the	High	Sprint-1

			application by entering email & password	application with Gmail login		
	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

## 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
	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 <ul style="list-style-type: none"><li>✓ registration page</li><li>✓ login page</li><li>✓ view products page</li><li>✓ add products page</li></ul>
	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 and 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 sprint 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		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 Parveen 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		USN-12	As a user, I will deploy App in Kubernetes cluster	3	High	J.Rilwana Parveen S.Suriya Jothi
Sprint-4	User panel		As a user <ul style="list-style-type: none"> <li>• Register, Login, Email, Verification</li> <li>• Manual Search</li> <li>• Order placement, Order Details</li> </ul>	3	High	J.Rilwana Parveen 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

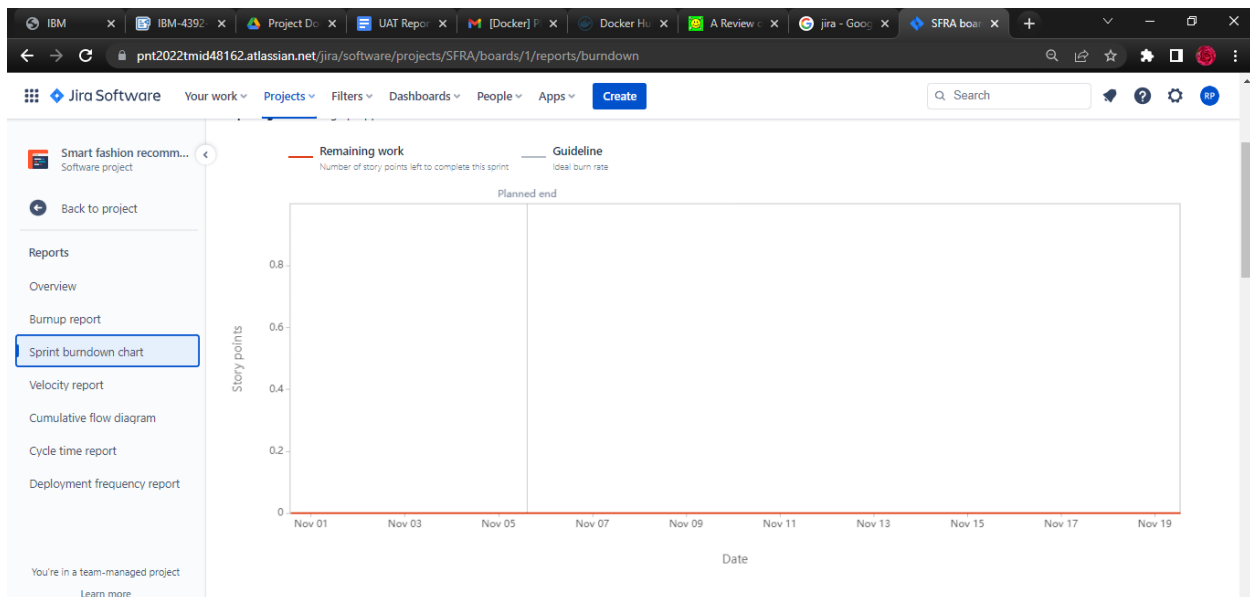
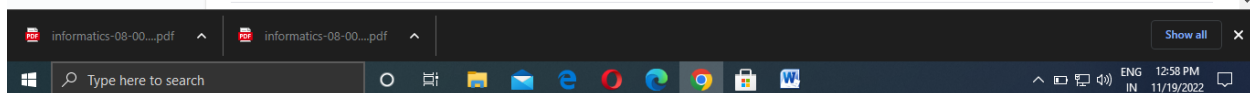
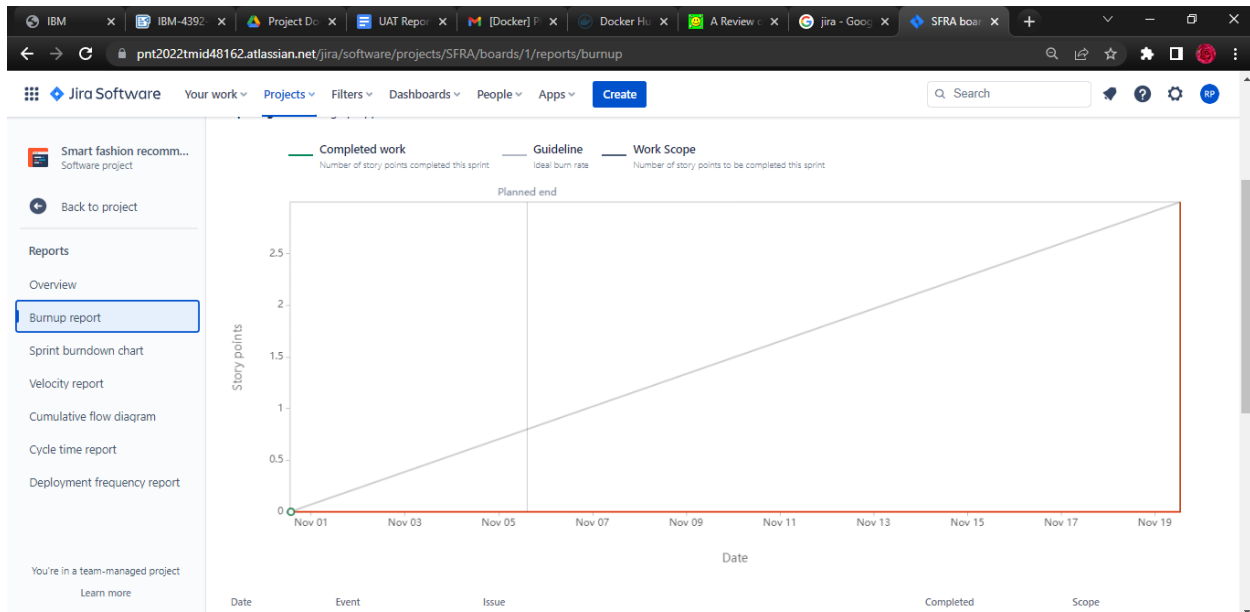
### Velocity

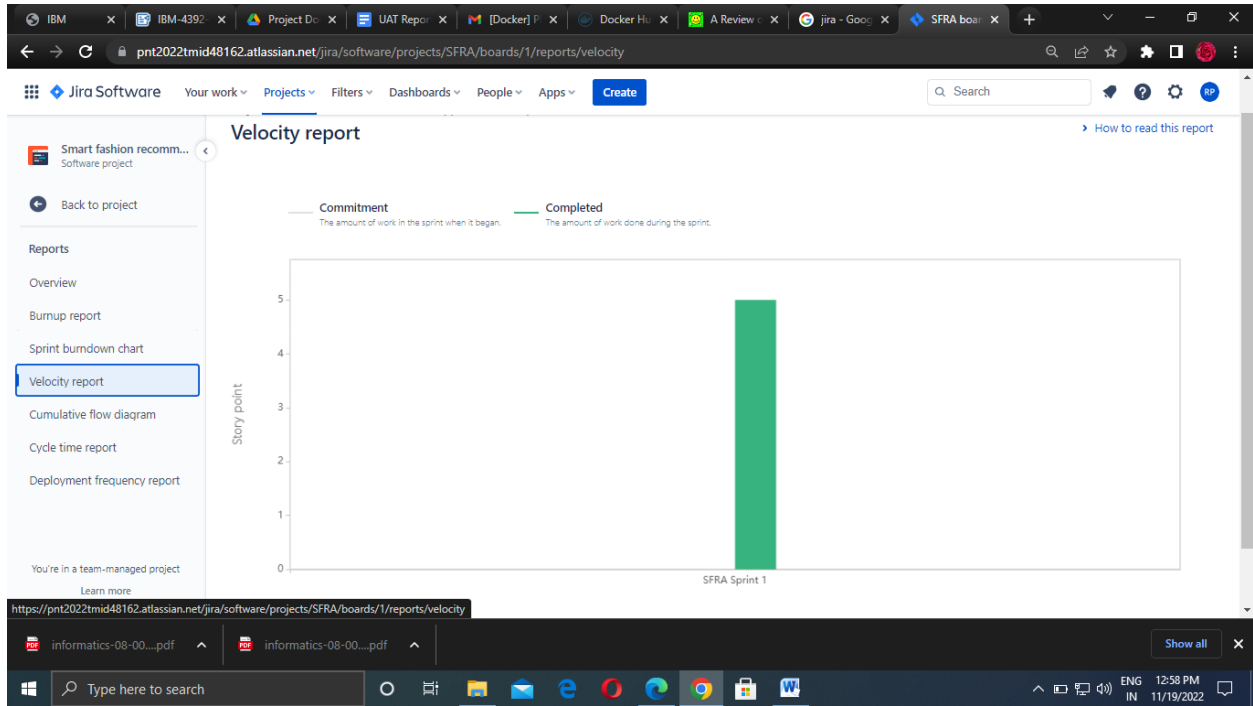
Imagine we have a 6-day sprint duration, and the velocity of the team is 18(points per sprint). Let's calculate the team's average velocity (AV) per iteration unit (story points per day)

$$AV = \text{Sprint Duration} / \text{Velocity}$$

$$AV = 24/6 = 4$$

## 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">
    
    <p class="sub-heading">best fashion collection of all time</p>
  </div>
</header>
<section class="product">
  <h2 class="product-category">best selling</h2>
  <button class="pre-btn"></button>
```

```
<button class="nxt-btn"></button>

<div class="product-container">
  <div class="product-card">
    <div class="product-image">
      <span class="discount-tag">50% offer</span>
      
      <button class="card-btn">add to whislist</button>
    </div>
    <div class="product-info">
      <h2 class="product-brand">brand</h2>
      <p class="product-short-des">a short line about the cloth.</p>
      <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>
      
      <button class="card-btn">add to whislist</button>
    </div>
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      <span class="price">$20</span><span class="actual-price">$40</span>
    </div>
  </div>
</div>
```

</div>

</div>

<div class="product-card">

<div class="product-image">

<span class="discount-tag">50% offer</span>



<button class="card-btn">add to whislist</button>

</div>

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</div>

</div>

<div class="product-card">

<div class="product-image">

<span class="discount-tag">50% offer</span>



```

<button class="card-btn">add to wishlist</button>
</div>
<div class="product-info">
  <h2 class="product-brand">brand</h2>
  <p class="product-short-des">a short line about the cloth.</p>
  <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>
    
    <button class="card-btn">add to wishlist</button>
  </div>
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  <div class="product-image">
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</div>
<div class="product-card">
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    <span class="discount-tag">50% offer</span>
    
    <button class="card-btn">add to wishlist</button>
  </div>
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    <p class="product-short-des">a short line about the cloth.</p>
    <span class="price">$20</span><span class="actual-price">$40</span>
  </div>
</div>
</div>
</section>
<!-- collections -->
<section class="collection-container">
  <a href="#" class="collection">
    
    <p class="collection-title">women <br> apparels</p>
  </a>
```

```

<a href="#" class="collection">
  
  <p class="collection-title">men <br> apparels</p>
</a>
<a href="#" class="collection">
  
  <p class="collection-title">accessories</p>
</a>
</section>
<section class="product">
  <h2 class="product-category">shirts</h2>
  <button class="pre-btn"></button>
<button class="nxt-btn"></button>
  <div class="product-container">
    <div class="product-card">
      <div class="product-image">
        <span class="discount-tag">50% offer</span>
        
        <button class="card-btn">add to whislist</button>
      </div>
      <div class="product-info">
        <h2 class="product-brand">brand</h2>
        <p class="product-short-des">a short line about the cloth.</p>

```

```

        <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>
        
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```

```
</div>
```

```
<div class="product-card">
```

```
  <div class="product-image">
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```

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  <div class="product-info">
    <h2 class="product-brand">brand</h2>
    <p class="product-short-des">a short line about the cloth.</p>
    <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"></button>

<button class="nxt-btn"></button>

<div class="product-container">

<div class="product-card">

<div class="product-image">

<span class="discount-tag">50% offer</span>



<button class="card-btn">add to whislist</button>

</div>

<div class="product-info">

<h2 class="product-brand">brand</h2>

<p class="product-short-des">a short line about the cloth.</p>

<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>



<button class="card-btn">add to whislist</button>

</div>

<div class="product-info">

<h2 class="product-brand">brand</h2>

<p class="product-short-des">a short line about the cloth.</p>



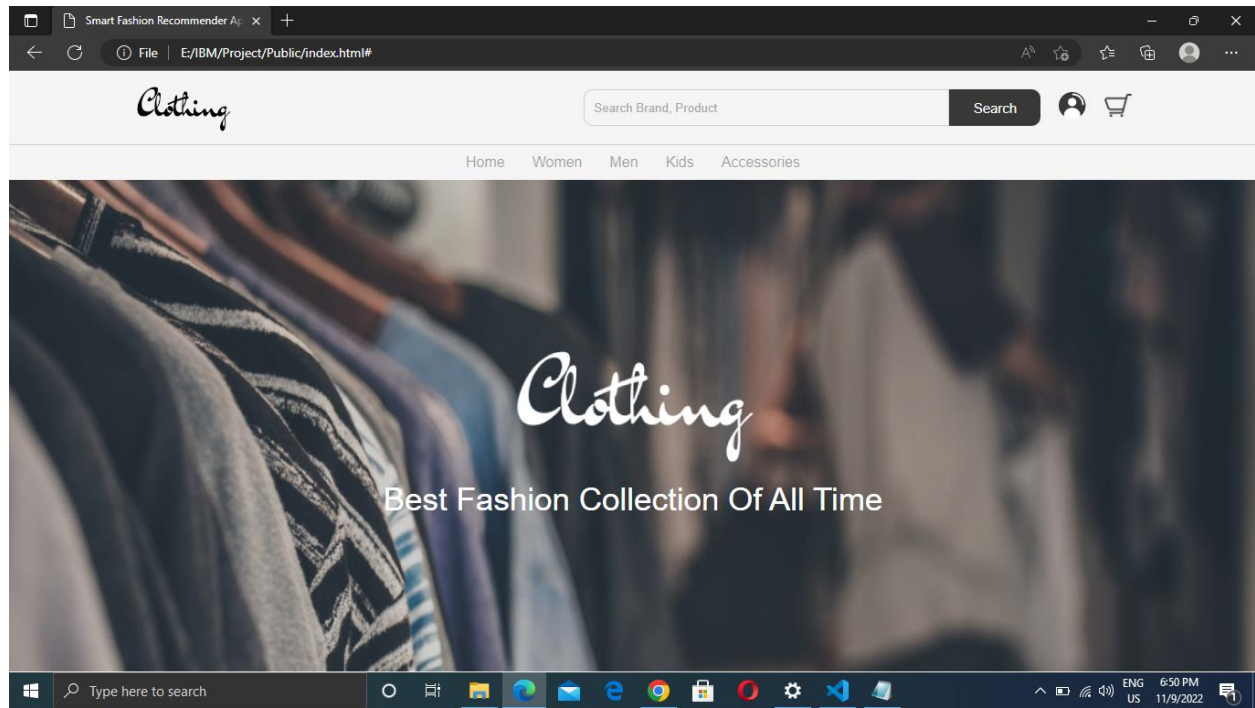
```
        <span class="price">$20</span><span class="actual-price">$40</span>
    </div>
</div>
<div class="product-card">
    <div class="product-image">
        <span class="discount-tag">50% offer</span>
        
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    </div>
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    </div>
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    </div>
    <div class="product-info">
        <h2 class="product-brand">brand</h2>
        <p class="product-short-des">a short line about the cloth.</p>
```

```
        <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')
```

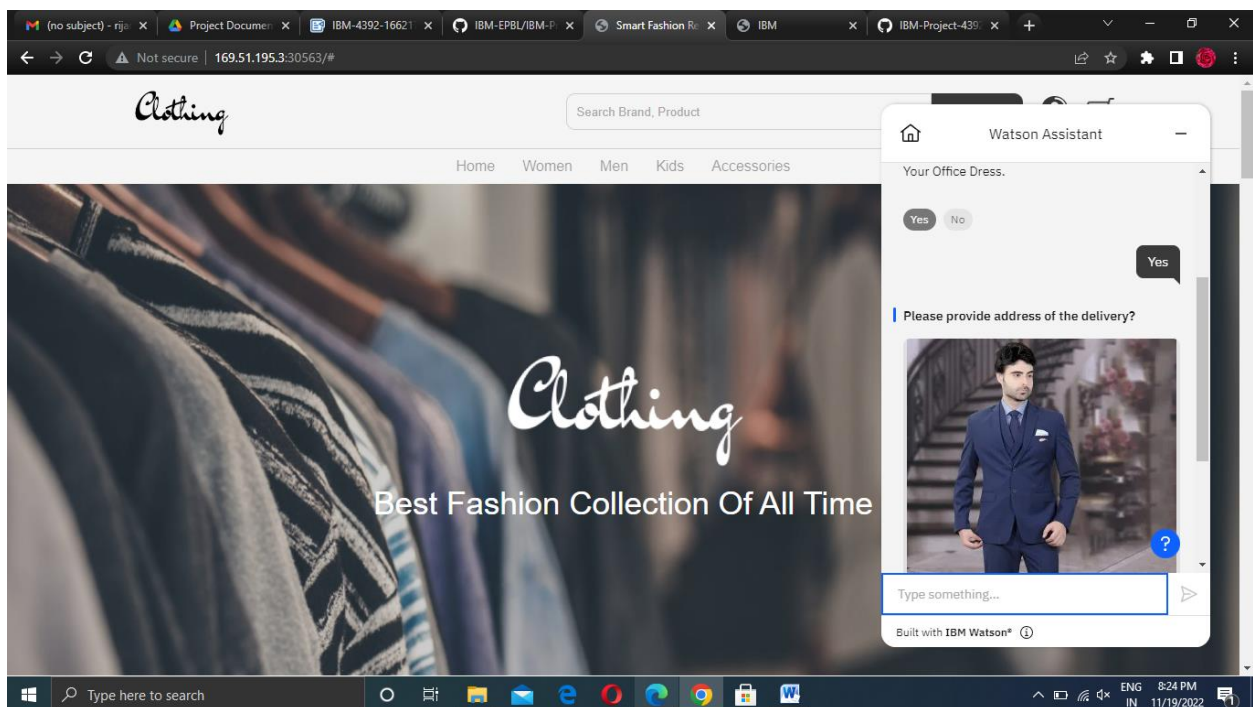
```
def error():
```

```
    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	Not Tested	Fail	Pass
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

WPS Office Testcases ...mplate (2) Sign in Free Trial

Menu Home Insert Page Layout Formulas Data Review View Tools Sm Click to f... Format a

Paste Copy Format Painter Calibri 11 A' A' B I U Merge and Center Wrap Text General Conditional Formatting Cell Styl

G1 fx

Steps To Execute	Test Data	Expected Result	Actual Result	Status	Comments	TC for Automation(Y/N)	BUG ID	Executed By
1. Enter URL and click go 2. Click on My Account 3. Verify login/signup popup displayed or not	<a href="https://shopnizer.com/">https://shopnizer.com/</a>	login/signup popup should display	Working as expected	Pass				
1. Enter URL and click go 2. Click on My Account 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	<a href="https://shopnizer.com/">https://shopnizer.com/</a>	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				
1. Enter URL( <a href="https://shopnizer.com/">https://shopnizer.com/</a> ) and click go 2. Click on My Account 3. Enter Valid username(email in Email text box 4. Enter valid password in password text box 5. Click on login button	Username: chaturam@gmail.com password: Testing123	User should navigate to user account homepage	Working as expected	Pass				
1. Enter URL( <a href="https://shopnizer.com/">https://shopnizer.com/</a> ) and click go 2. Click on My Account 3. Enter Invalid username(email in Email text box 4. Enter valid password in password text box 5. Click on login button	Username: chaturam@gmail.com password: Testing123	Application should show "Incorrect email or password" validation message.	Working as expected	Pass				

Shopenzer Testcases Testscenarios +

Average=0 Count=0 Sum=0 58%

WPS Office Testcases ...mplate (2) Sign in Free Trial

Menu Home Insert Page Layout Formulas Data Review View Tools Sm Click to f... Format a

Paste Copy Format Painter Calibri 11 A' A' B I U Merge and Center Wrap Text General Conditional Formatting Cell Styl

K9 fx

Steps To Execute	Test Data	Expected Result	Actual Result	Status	Comments	TC for Automation(Y/N)	BUG ID	Executed By
1. Enter URL( <a href="https://shopnizer.com/">https://shopnizer.com/</a> ) and click go 2. Click on My Account 3. Enter Valid username(email in Email text box 4. Enter valid password in password text box 5. Click on login button	Username: chaturam@gmail.com password: Testing123	Application should show "Incorrect email or password" validation message.	Working as expected	Pass				
1. Enter URL( <a href="https://shopnizer.com/">https://shopnizer.com/</a> ) and click go 2. Click on My Account 3. Enter Invalid username(email in Email text box 4. Enter valid password in password text box 5. Click on login button	Username: Rihwanapurnam password: 123456	Application should show "Incorrect email or password" validation message.	Working as expected	Pass				
Chat bot under the website	Ques		Working as expected	Pass				
user will get the mail Notification	email		Working as expected	Pass				

Shopenzer Testcases Testscenarios +

58%

## 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 they were resolved

Resolution	Severity 1	Severity 2	Severity 3	Severity 4	Subtotal
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 Reproduced	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

performance template for Internet of Things & Cloud Application Development.xlsx - Microsoft Excel (Product Activation Failed)								
Rihwana parveen								
S.No	Project Name	Project Name	Functional Changes	Hardware Changes	Software Changes	Impact of Downtime	Load/Volumen Changes	Risk Score
1	smart fashion recommender application	New	Low	No Changes	Moderate		>5 to 10%	ORANGE
								As we have seen the changes
NFT - Detailed Test Plan								
S.No	Project Overview	NFT Test approach		Assumptions/Dependencies/Risks		Approval/Sign Off		
1	smart fashion recommender application	manual testing	laptop or mobile with internet connection	Rihwana parveen				
End Of Test Report								
S.No	Project Overview	NFT Test approach	Test Outcome	GO/NO-GO decision	Recommendations	Identified Defects (Detected/Closed/Open)		Approval/Sign Off
1	smart fashion recommender application	Manual	Worked as we expected		Use laptop /desktop mode	No defects		Rihwana parveen

## **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.

## **10.CONCLUSION**

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 .

## **11.FUTURE SCOPE**

Future chatbots can communicate at multiple levels with automation at the system level. They have the ability to maintain the system, task, and people contexts. 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 customer 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

```
<!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">
    
    <p class="sub-heading">best fashion collection of all time</p>
  </div>
</header>
<section class="product">
  <h2 class="product-category">best selling</h2>
  <button class="pre-btn"></button>
<button class="nxt-btn"></button>
  <div class="product-container">
    <div class="product-card">
      <div class="product-image">
        <span class="discount-tag">50% offer</span>
        
        <button class="card-btn">add to whislist</button>
      </div>
      <div class="product-info">
        <h2 class="product-brand">brand</h2>
        <p class="product-short-des">a short line about the cloth.</p>
        <span class="price">$20</span><span class="actual-
price">$40</span>
```

```
</div>
</div>
<div class="product-card">
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```

```
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        <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>

<button class="card-btn">add to whislist</button>
</div>
<div class="product-info">
  <h2 class="product-brand">brand</h2>
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price">$40</span>
</div>
</div>
<div class="product-card">
  <div class="product-image">
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  <span class="price">$20</span><span class="actual-
price">$40</span>
</div>
</div>
</div>
</section>
<!-- collections -->
<section class="collection-container">
  <a href="#" class="collection">
    
    <p class="collection-title">women <br> apparels</p>
  </a>
  <a href="#" class="collection">
    
    <p class="collection-title">men <br> apparels</p>
  </a>
  <a href="#" class="collection">
```

```

<p class="collection-title">accessories</p>
</a>
</section>
<section class="product">
  <h2 class="product-category">shirts</h2>
  <button class="pre-btn"></button>
<button class="nxt-btn"></button>
  <div class="product-container">
    <div class="product-card">
      <div class="product-image">
        <span class="discount-tag">50% offer</span>
        
        <button class="card-btn">add to whislist</button>
      </div>
      <div class="product-info">
        <h2 class="product-brand">brand</h2>
        <p class="product-short-des">a short line about the cloth.</p>
        <span class="price">$20</span><span class="actual-
price">$40</span>
      </div>
    </div>
  </div>
</div>
```

```
<div class="product-card">
  <div class="product-image">
    <span class="discount-tag">50% offer</span>
    
    <button class="card-btn">add to whislist</button>
  </div>
  <div class="product-info">
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</div>
```

```
    </div>  
</section>  
<section class="product">  
    <h2 class="product-category">shoes</h2>  
    <button class="pre-btn"></button>  
<button class="nxt-btn"></button>  
    <div class="product-container">  
        <div class="product-card">  
            <div class="product-image">  
                <span class="discount-tag">50% offer</span>  
                  
                <button class="card-btn">add to whislist</button>  
            </div>  
            <div class="product-info">  
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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>
```

**app.py**

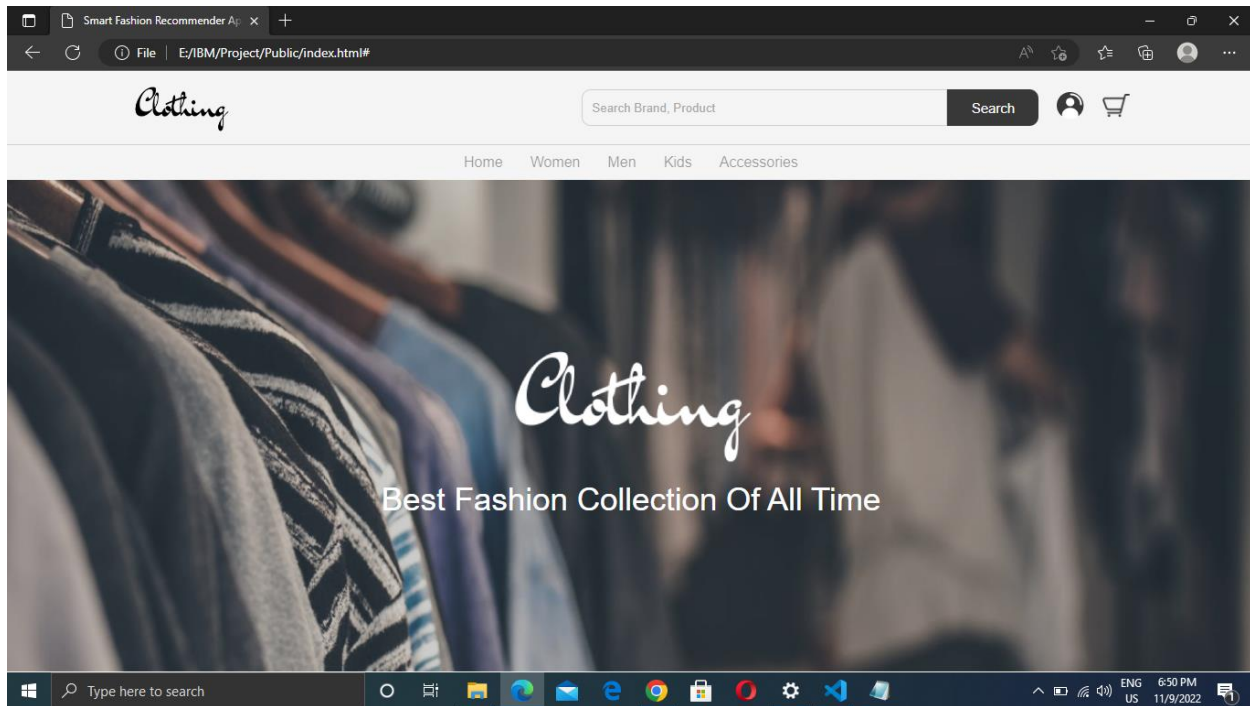
```
@app.route('/')
def index():
    return render_template('index.html')
```

```
@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)
```



Smart Fashion Recommender App


File | E:/IBM/Project/Public/index.html#

Search Brand, Product

Search

Home | Women | Men | Kids | Accessories

Best Selling




50% Offer

BRAND

A Short Line About The Cloth.

\$20 \$40




50% Offer

BRAND

A Short Line About The Cloth.

\$20 \$40




50% Offer

BRAND

A Short Line About The Cloth.

\$20 \$40




50% Offer

BRAND

A Short Line About The Cloth.

\$20 \$40




BRA

A Short

\$20

Type here to search



ENG US

7:34 PM

11/9/2022



Smart Fashion Recommender Ap... Product

File | E:/IBM/Project/Public/product.html#

Search Brand, Product

Search

Home Women Men Kids Accessories

**Calvin Klein**

Lorem Ipsum Dolor Sit, Amet Consectetur Adipiscing Elit.

**\$99** ~~\$200~~ (50% off)

**SELECT SIZE**

S M L XL XXL

Add To Cart Add To Wishlist

Watson Assistant

Your Office Dress.

Yes No

Yes

Please provide address of the delivery?

Type something...

Built with IBM Watson®

Watson Assistant

Your Office Dress.

Yes No

Yes

Please provide address of the delivery?

Type something...

Built with IBM Watson®

Best Fashion Collection Of All Time

**GitHub & Project Demo Link**

**IBM-Project-4392-1658731021**

**<https://we.tl/t-FdUTfMTM48>**