SMART FASHION RECOMMENDER APPLICATION

IBM – DOCUMENTATION

UNDER THE GUIDANCE OF

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ABSTRACT

Fashion is perceived as a meaningful way of self-expressingthat people use for different purposes. It seems to be an integral partof every person in modern societies, from everyday life to exceptional events and occasions. Fashionable products are highly demanded, and consequently, fashion is perceived as a desirable and profitable industry. Although this massive demand for fashion products provides an excellent opportunity for companies to investin fashion-related sectors, it also faces different challenges in answering their customer needs.

In recent years, the textile and fashion industries have witnessed an enormous amount of growth in fast fashion. On e- commerce platforms, where numerous choices are available, an efficient recommendation system is required to sort, order, andefficiently convey relevant product content or information to users. Smart Fashion Recommender Application have attracted a hugeamount of attention from fast fashion retailers as they provide a personalized shopping experience to consumers. Smart Fashion Recommender Application have been introduced to address these needs.

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1. INTRODUCTION

1.1 PROJECT OVERVIEW :

The Fashion industry is one of the larger industries around the world.One of the things that has remained constant throughout human civilization ishumans covering their bodies with a piece of cloth. Initially, this cloth was worn as protection from the harsh climates of those ages. Later on, as we humans learned to fend for ourselves from the unforgiving climates, the clothstarted to serve a different purpose. Fashion these days showcases the individuality of the person. There are many things that can be said about a person based on their fashion sense.

1.2 PURPOSE :

There is currently no existing system that is capable of recommendingclothes based on the occasion. Different occasions call for different clothing. Moreover, a lot of fashion is based on the color combinations of outfits. A person with no or little fashion sense will have a hard time to decide on clothesthat leave a lasting impression. The proposed Fashion RecommendationSystem is intended to be used by individual users in order to store images of the clothes that they own in what is called a digital wardrobe and also to get recommendations by the system on what clothes to wear for a given occasion. The main aim of the project is to recommend the most appropriate clothes fora given occasion based on the clothes existing in the user's wardrobe to relievethe user of the burden of making decisions about what clothing to wear. Sucha system should be capable of helping someone who has no fashion sense to wear clothes that leave a good impression on others. The system should be such that it is easily accessible and easy to take advantage of the various features that it provides. One of the features should be the ability to store images that the user uploads into a wardrobe. A wardrobe is a very useful entity that the user can use to view and manage the images of clothes that theyhave uploaded. This feature can also be used by the recommendation algorithm to recommend the clothes.

2. LITERATURE SURVEY

2.1 EXISTING PROBLEM :

In existing system only simple web application and their rating has been implemented in existing system, An ecommerce product recommendation engine is a piece of technology that displays recommended products to shoppers throughout your store. It uses machine learning to get smarter and show increasingly relevant products to shoppers based on their interests and previous browsing behaviour

An existing model is content based filtering scheme has been employed in existing model The content-based filtering method analyses customer data on the likes and dislikes of each user (cookies allow tracking over multiple visits), then makes recommendations based on the browsing history of that user. The idea behind content-based filtering is that if you enjoy a certain item, you'll likely also enjoy a similar item. An example of a content based filtering system would be if you were listening to Pandora and consistently 'liked' downtempo jazz music.

The collaborative-filtering method incorporates data from users who have purchased similar products, then combines that information to make decisions about recommendations. The advantage to this filtering method is that it is capable of making complex recommendations on items such as musicor movies without having to 'understand' what the item is. This method of filtering operates under the assumption that users will prefer recommendationsthat are based on purchases they made in the past. Here's an example: If customer A likes a specific line of products that customer B also likes (assuming they have similar interests), then collaborate-filtering would assume that customer A would like other products that customer B purchasedand vice versa.

A hybrid method combines the content-based and collaborative-basedmethods to incorporate group decisions but focuses the output based on the attributes of a specific visitor. An example of a hybrid filtering system wouldbe how Spotify curates its personalized 'Discover Weekly' playlists. If you've

ever listened to a personalized Spotify playlist, it's shocking how accurately they're able to recommend songs based on what you like. The secret behind how they pull this off is through a complex hybrid filtering system that aggregates data on your listening habits as well as similar users' listening habits, to create a playlist of unique songs that align with your personal taste.

2.2 REFERENCES:

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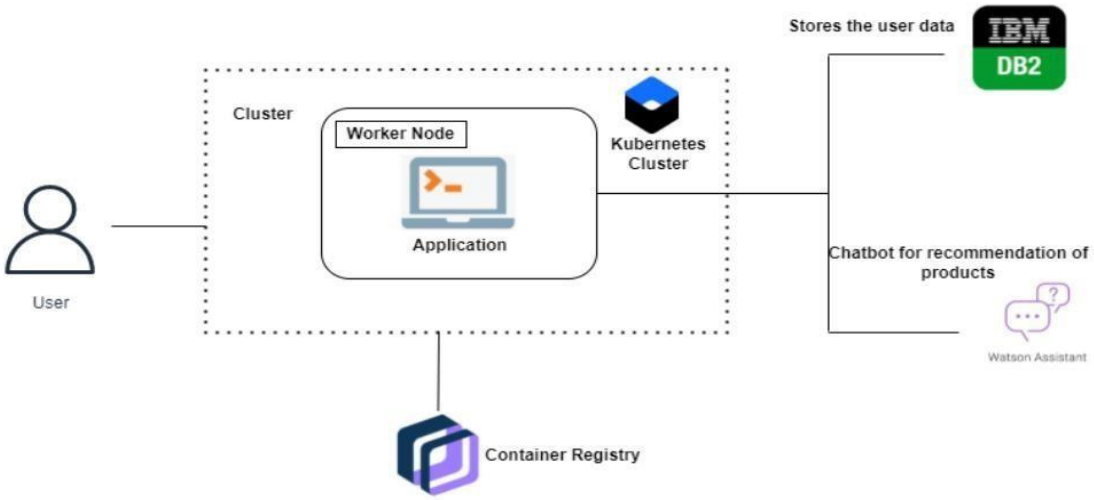
2.3 PROBLEM STATEMENT DEFINITION

The personal information collected by recommenders raises the risk of unwanted exposure of that information. Also, malicious users can bias orsabotage the recommendations that are provided to other users. In recent years, the textile and fashion industries have witnessed an enormous amount of growthin fast fashion. 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.



2.3.1 DEFINE THE PROBLEM :

Who can use this application ?	Everyone can access this application who seeking for online shopping infashion category.
What is the issue ?	Chat bot can’t find that customerized product relevent in smart fashion recommender application.
Why is it so important that we fix this issue ?	In order to find the original product for making purchasable using chat bot at right time.
When to use ?	While searching the products online application without search method.
Where is the issue occuring ?	Only in certain locations, limited products available, multilple process during chat bot recommendation.

EXAMPLES :

- Lack of proper guidance.
- Lack of interaction between application and user
- User need to navigate across multiple pages to choose right product
- Confusion in choosing product
- Lack of sales
- Complex User Interface.
- The problem of the work is to design static web applications deployments with customer deployment

3.IDEATION & PROPOSED SOLUTION

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. In this project you will be working on two modules:

1.Admin 2.User

ADMIN:

The role of the admin is to check out the database about the stock and have atrack of all the things that the users are purchasing.

USER :

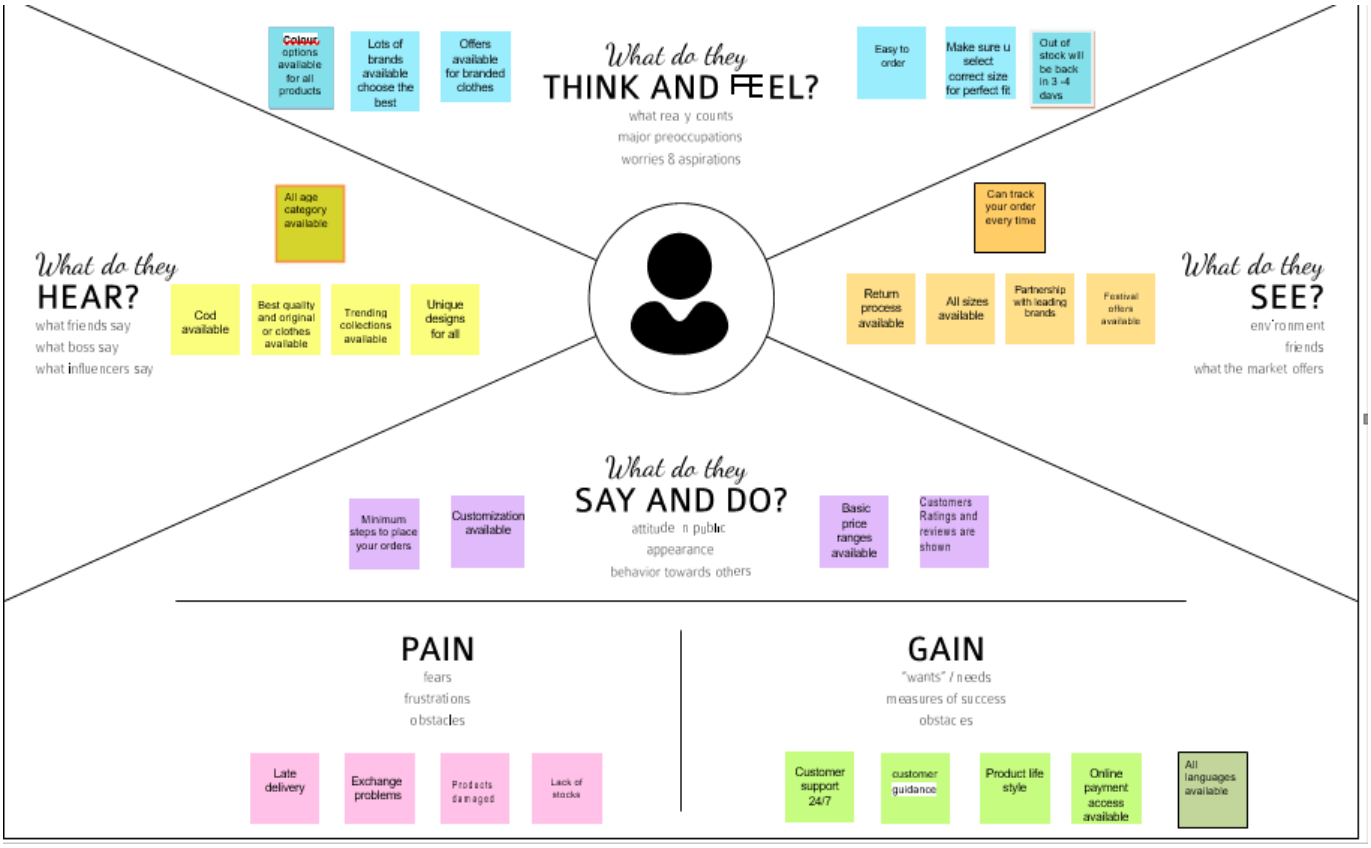
The user will login into the website and go through the products available on the website. Instead of navigating to several screens for booking products online, the user can directly talk to Chatbot regarding theproducts. Get the recommendations based on information provided by theuser.

FEATURES OF CHATBOT :

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

3.1 EMPATHY MAP CANVAS:

An empathy map is a simple, easy-to-digest visual that captures knowledge about a user's behaviours and attitudes. It is a useful tool to helpsteams better understand their users. Creating an effective solution requires understanding the true problem and the person who is experiencing it. The exercise of creating the map helps participants consider things from the user'sperspective along with his or her goals and challenges. An empathy map is a collaborative tool teams can use to gain a deeper insight into their customers.



3.2 IDEATION & BRAINSTROMING:

A group problem-solving technique that involves the spontaneouscontribution of ideas from all members of the group. The mulling over of ideas by one or more individuals in an attempt to devise or find a solution to a problem.

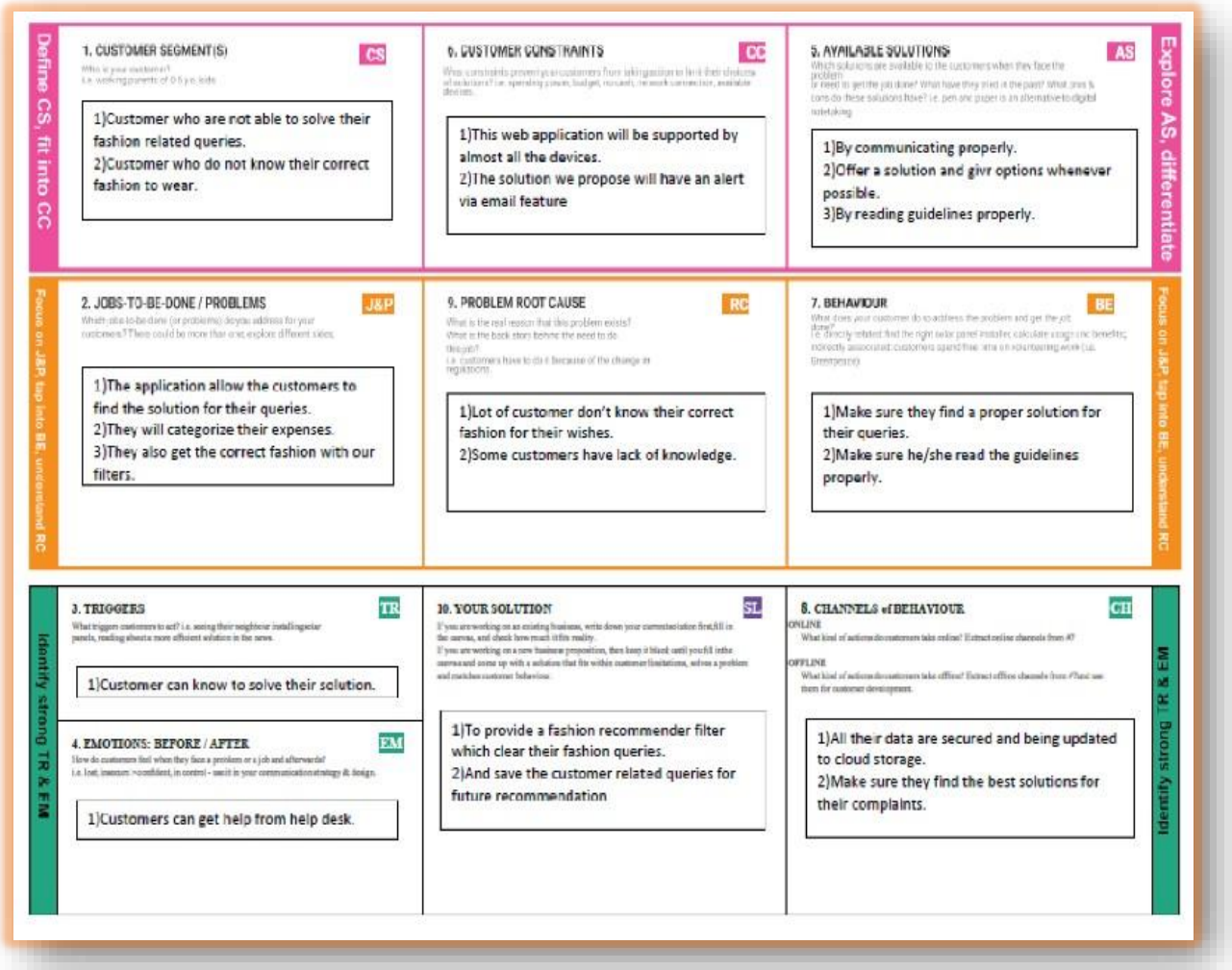
3.3 PROPOSED SOLUTION:

Project team shall fill the following information in proposed solution template.

S.NO	PARAMETER	DESCRIPTION
1.	PROBLEM STATEMENT	Typically,e-commerce features include
2.	IDEA/ SOLUTION DESCRIPTION	Smart Fashion Recommender Application can tackle with choice overload by suggesting the most interesting products to the users
3.	NOVERTY/ UNIQUENESS	Instead of searching manually a chatbot will help to find the right product effectively, with this feature user can save time and it is a easy process, chat keep send notification about new collections
4.	SOCIAL IMAPACT /CUSTOMER SATISTIFICATION	This chatbot helps the users to find the right products easily, the innovations that all levels of business owners can take advantage of. This application used in all fashion markets
5.	BUSINESS MODEL (REVENUE MODEL)	While getting a big order from a major retailer might sound like a good thing for a fledgling brand, it means the brand has a short time to somehow produce that inventory and hire the necessary employees without any money upfront
6.	SCALABILITY OF THE SOLUTION	• Bot never runs into errors • Optimized stock database • Established marketing strategy • Responsiveness of the application

3.4 PROBLEM SOLUTION FIT:

Project team shall fill the following information in proposed solution fit template.



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 / Sign up**	Registration through Form Registration through Gmail Registration through LinkedIN
FR-2	**User Verification**	Confirmation via Email Confirmation via OTP
FR-3	**Sign In / Login**	Login by using Mobile Number or Email
FR-4	**Profile Details**	Update the Information about Customer Example :- • Name • Gender • Age • Mobile number • Address
FR-5	**Chatbot (Watson Assistant)**	Get the Information about • Search Products • View Offers • Discounts • Stock Availability • User Personal Information (FR-4)
FR-6	**Advance Search Capabilities**	Sorting and filtering options
FR-7	**Shopping Cart**	Buy now Button Add-To-Cart-Button Remove-From-Cart-Button
FR-8	**Checking Item Availability**	Item Availability in rural and urban Locations
FR-9	**Checking The Shipping Status / Tracking The Order Product**	Easily Checking Status availability of ordered Items
FR-10	**Logout**	After the Purchase, user can Logout Or close the application When customer needs.

4.2 NON-FUNCTIONAL REQUIREMENTS:

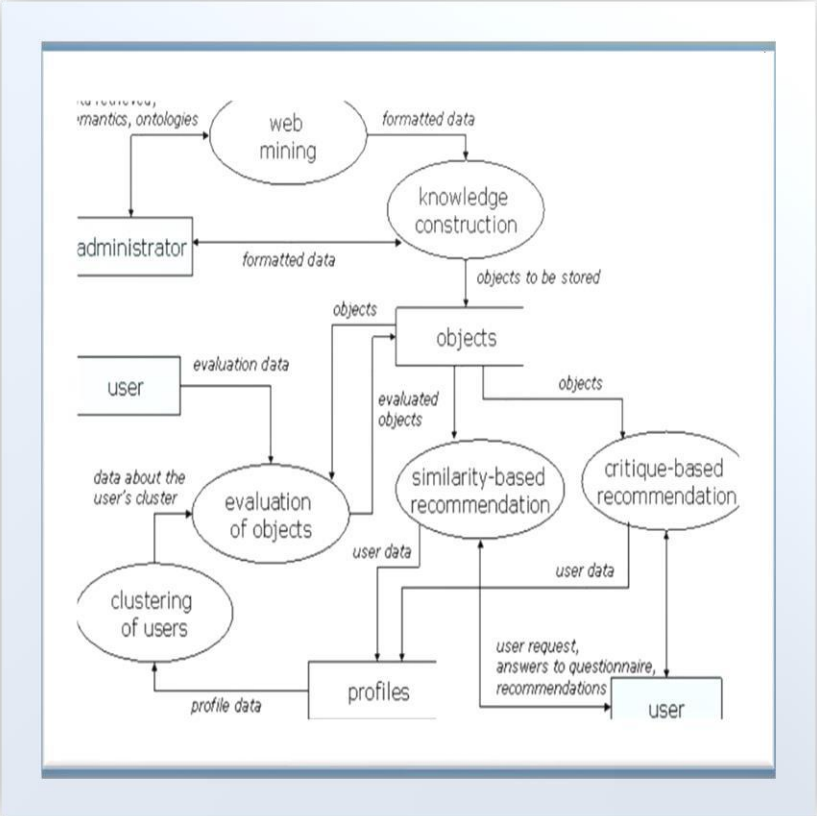
Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	The application will be designed for making Good Human – Computer Interaction in such a way, • Any user can easily navigate • User Can easily View and understandable • Comfort while making Place order • Comfort with tracking facilities • Easy and Compact design These all are about to achieve a defined goal Effectively, Efficiently and Satisfactorily.
NFR-2	**Security**	The application will be Using of "Secure Socket Layer" (SSL) Certificate will provide a More security of the Project and This process will happen while Python Flask to Cloud Connect. This makes user private Information like Baking, Shipping/Home address, email, Phone number etc., will be kept as more secure.
NFR-3	**Reliability**	Ability of software to perform critical tasks like Collection and Securing customer Data, Providing Gateway Payment to function correctly in a given Environment, for a Particular amount of time.
NFR-4	**Performance**	It Focus on the loading application as quickly as possible irrespective of the number of user traffic.
NFR-5	**Availability**	The Application will be Available to all users at any given point of time. User can access the chatbot for raising any queries.
NFR-6	**Scalability**	Chatbot can be very useful during festival season to know about offers and discounts. It will be helpful whenever we make online shopping.

5.PROJECT DESIGN

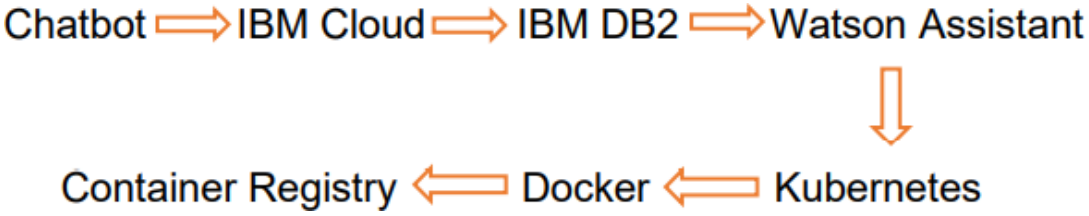
5.1 DATA FLOW DIAGRAMS:

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.



USER FLOW :

WORK FLOW:



A Data Flow Diagram

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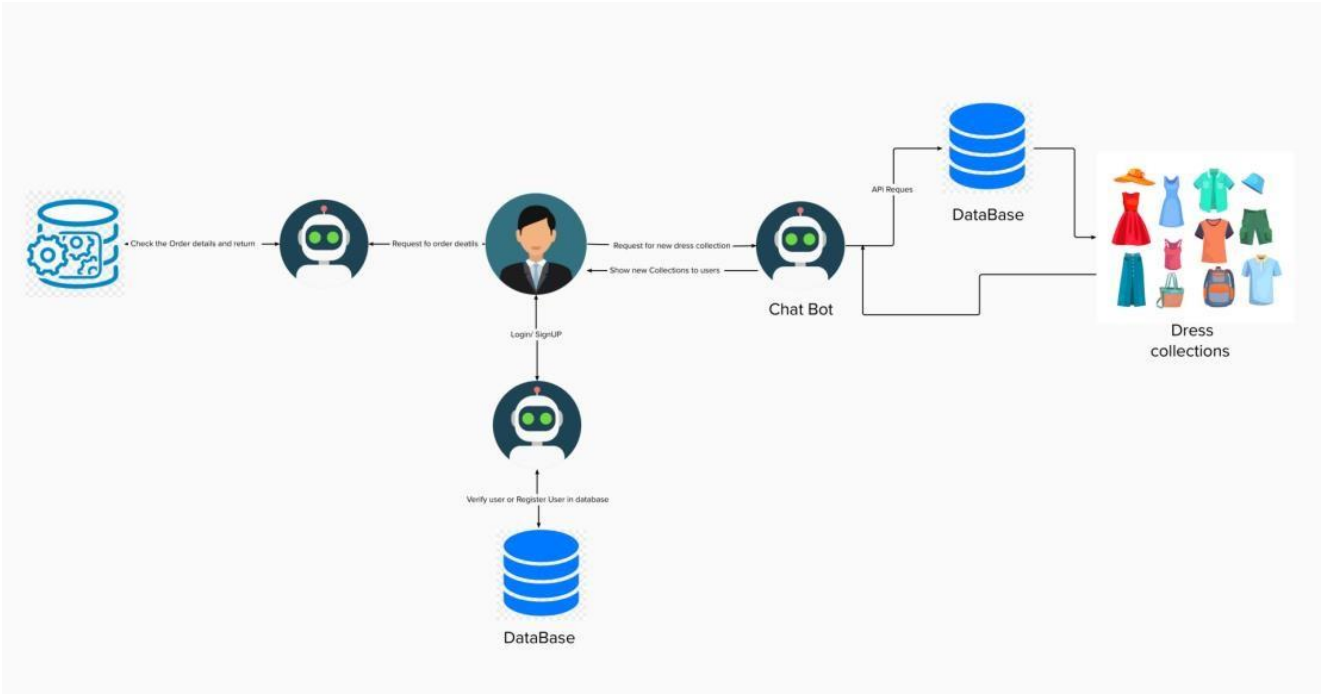
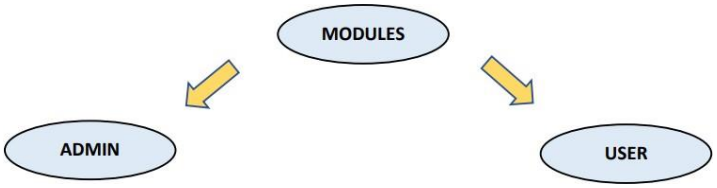


5.2 SOLUTION & TECHNICAL ARCHITECTURE:

Solution Architecture: We have developed 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. In this project you will be working on two modules :



ADMIN :

The user will log in to the website and browse the things that are offered there. The consumer can speak directly to the IBM Watson about the products rather than going through multiple screens to make a purchase online. Obtain suggestions based on the data the user has provided.

USER :

The administrator's job is to look over the stock database and keep tabs on anything that people are buying. The admin can manage the data maintenance and queries from customer and review these process and response it.

DATABASE :

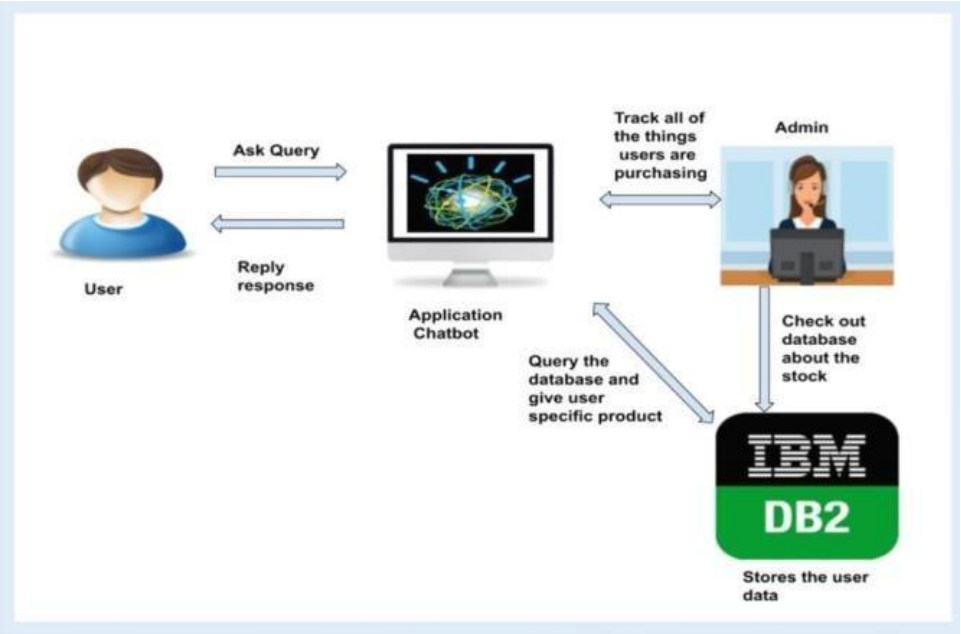
In the IBM DB2 database, chatbot will keep track of customer information and orders. Whenever Customer access Our Chatbot , IBM database automatically saves their performance like Viewing Dress collection and placing Orders.

EXISTING PROBLEM WITH SOLUTION:

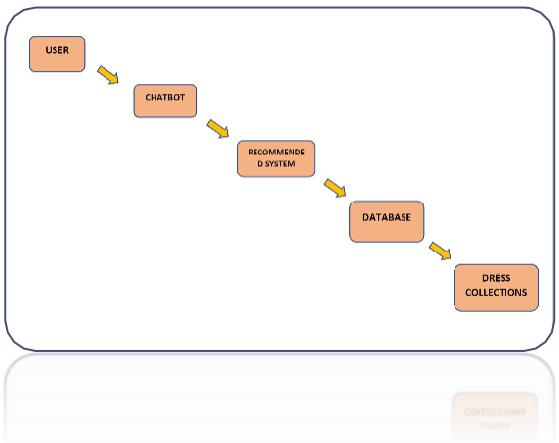
Instead of searching for products in the search bar and navigating to individual products to find required preferences, this project leverages the use of chatbots to gather all required preferences and recommend products to the user. The solution is

implemented in such a way as to improve the interactivity between customers and applications. The chatbot sends messages periodically to notify offers and preferences. For security concerns, this application uses a token to authenticate and authorize users securely. The token has encoded user id and role. Based on the encoded information, access to the resources is restricted to specific users.

EXAMPLE - SOLUTION ARCHITECTURE DIAGRAM:



ADMIN ARCHITECTURE:



5.3 USER STORIES :

Use the below template to list all the user stories for the product.

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 Facebook	I can register & access the dashboard with Facebook 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 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 the 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-pages	I can register & access the dashboard with Gmail login	High	Sprint-1
		USN-3	As a user, I can registered for the web-page through Email	I can register & access the dashboard with Gmail Login	Low	Sprint-2
		USN-4	As a user, I can register for the web-page through Email	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 myusername/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 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 executive, I can log into the application by entering my executive email id & password	I can log into the application with Gmail login	High	Sprint-1
	Dashboard	USN-1	As a customer care executive, 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-1
	Service	USN-1	As a customer Care Executive, I can access the customer care 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 administrator email id & password	I can log into the application with Gmail application	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-1

6.PROJECT PLANNING & SCHEDULE

6.1 SPRINT PLANNING & ESTIMATION :

TITLE	DESCRIPTION	DATE
Literature Survey & Information Gathering	Literature survey on the selected project & gathering information by referring the, technical papers, research publications etc.	15 SEPTEMBER 2022
Prepare Empathy Map	Prepare Empathy Map Canvas to capture the user Pains & Gains, Prepare list of problem statements	15 SEPTEMBER 2022
Ideation	List the by organizing the brainstorming session and prioritize the top 3 ideas based on the feasibility & importance.	15 SEPTEMBER 2022
Proposed Solution	Prepare the proposed solution document, which includes the novelty, feasibility of idea, business model, social impact, scalability of solution, etc.	24 SEPTEMBER 2022
Problem Solution Fit	Prepare problem - solution fit document.	1 OCTOBER 2022
Solution Architecture	Prepare solution architecture document.	7 OCTOBER 2022
Customer Journey	Prepare the customer journey maps to understand the user interactions & experiences with the application (entry to exit).	17 OCTOBER 2022
Functional Requirement	Prepare the functional requirement document.	17 OCTOBER 2022
Data Flow Diagrams	Draw the data flow diagrams and submit for review.	17 OCTOBER 2022

Technology Architecture	Prepare the Technology architecture diagram.	17 OCTOBER 2022
Prepare Milestone & Activity List	Prepare the milestones & activity list of the project.	28 OCTOBER 2022
Project Development - Delivery of Sprint-1, 2, 3 & 4	Develop & submit the developed code by testing it.	IN PROGRESS..

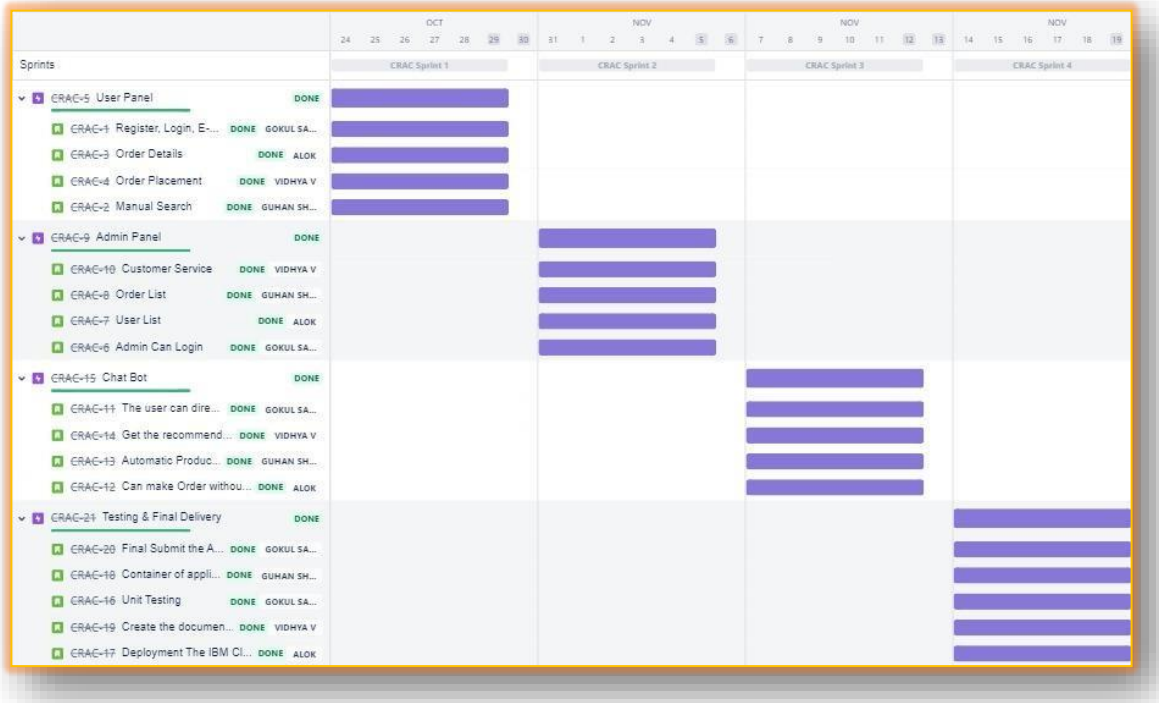
VELOCITY :

$$AV = \frac{sprint\ duration}{velocity} = \frac{20}{10} = 2$$

6.2 SPRINT DELIVERY SCHEDULE:

Sprint	Total StoryPoints	Duration	Sprint Start Date	Sprint End Date (Planned)	Story Points Completed (as on Planned End Date)	Sprint Release Date (Actual)
Sprint-1	20	6 Days	24 Oct 2022	29 Oct 2022	20	29 Oct 2022
Sprint-2	20	6 Days	31 Oct 2022	05 Nov 2022	20	05 Nov 2022
Sprint-3	20	6 Days	07 Nov 2022	12 Nov 2022	20	12 Nov 2022
Sprint-4	20	6 Days	14 Nov 2022	19 Nov 2022	20	19 Nov 2022

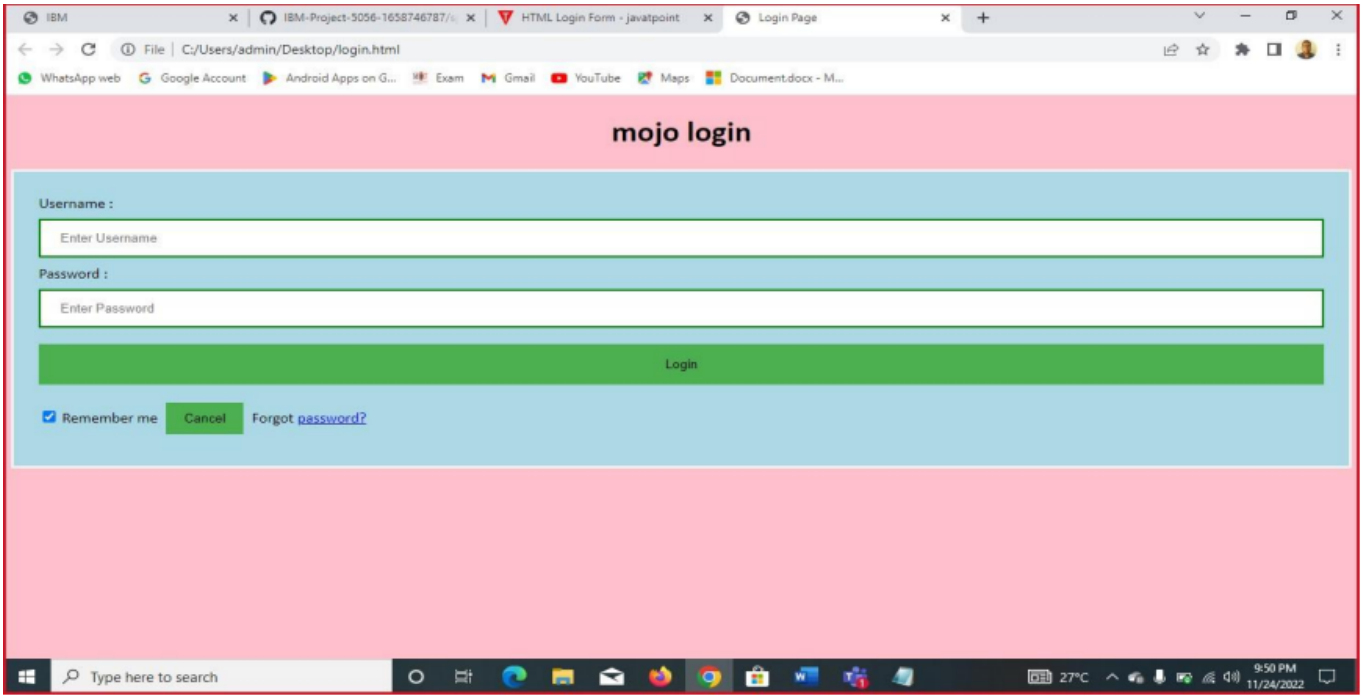
6.3 REPORTS FROM JIRA:

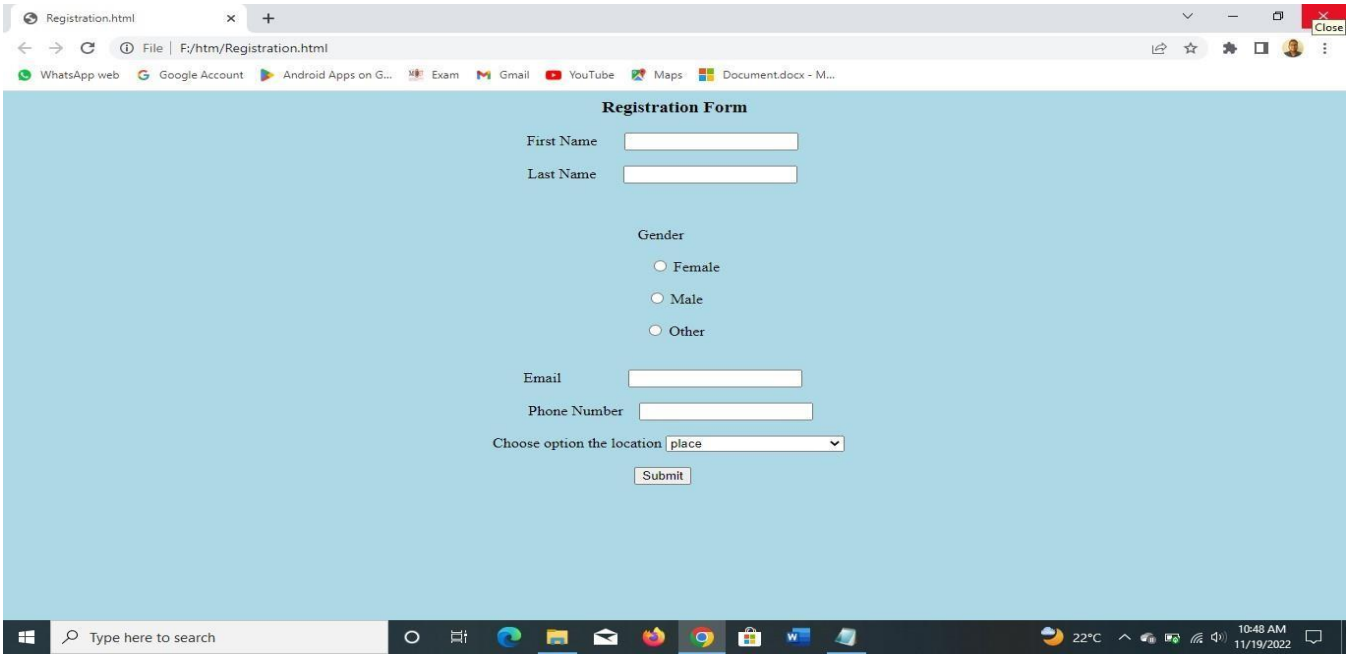


7.CODING & SOLUTIONING

7.1 FEATURES :

- **REGISTRATION PAGE**
- **LOGIN PAGE**
- **FINAL CODE**
- **SHOP PAGE**





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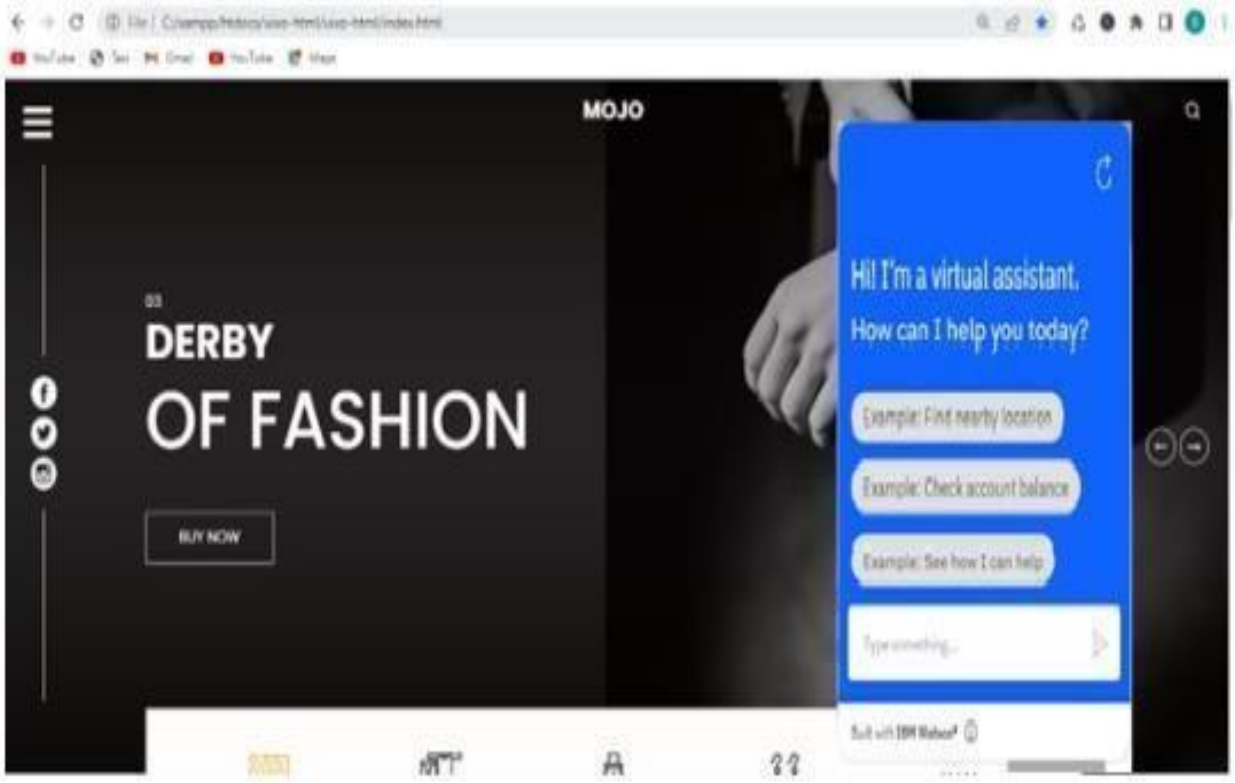

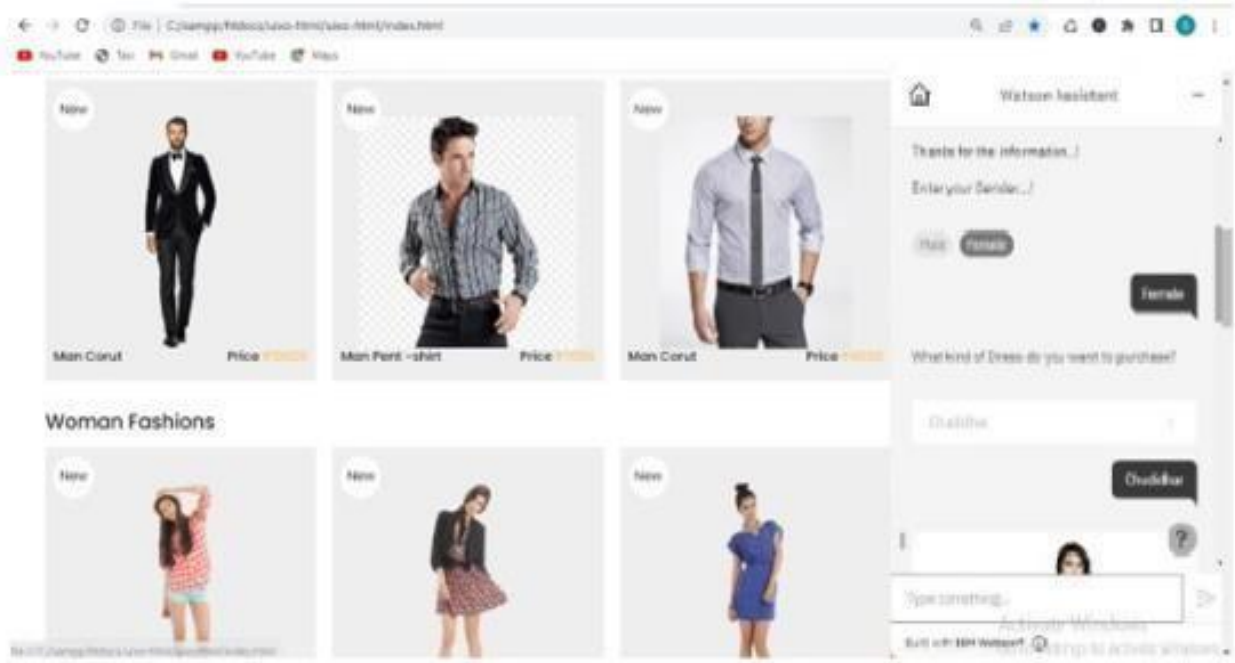

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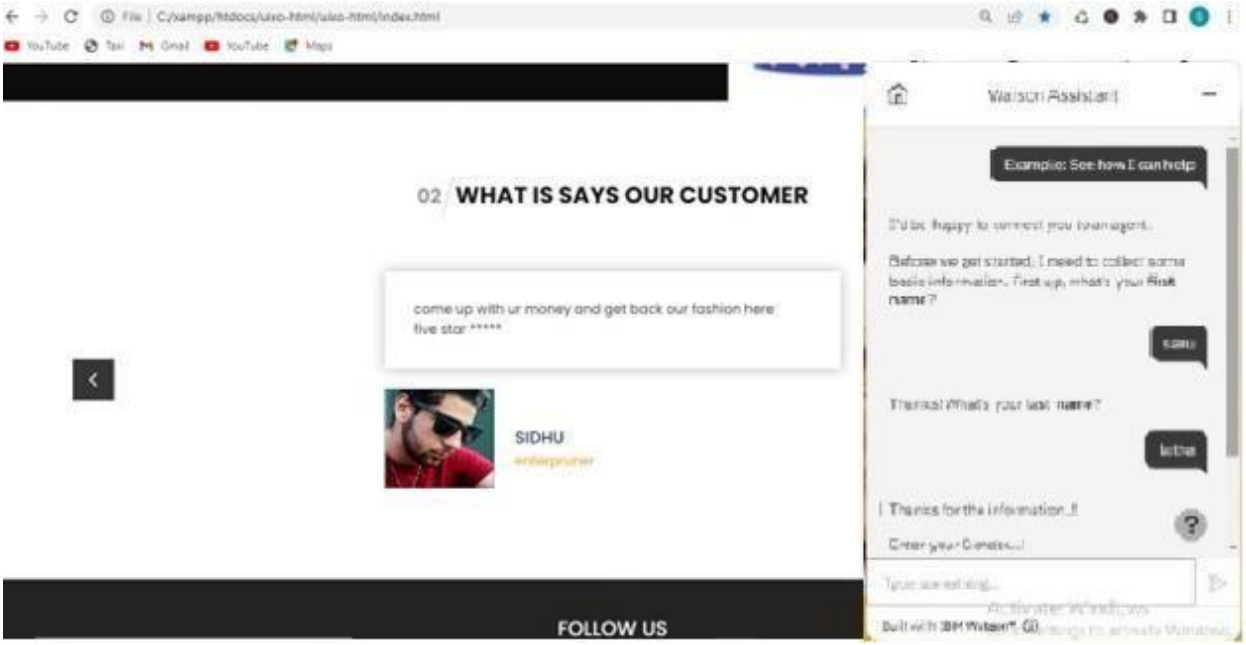
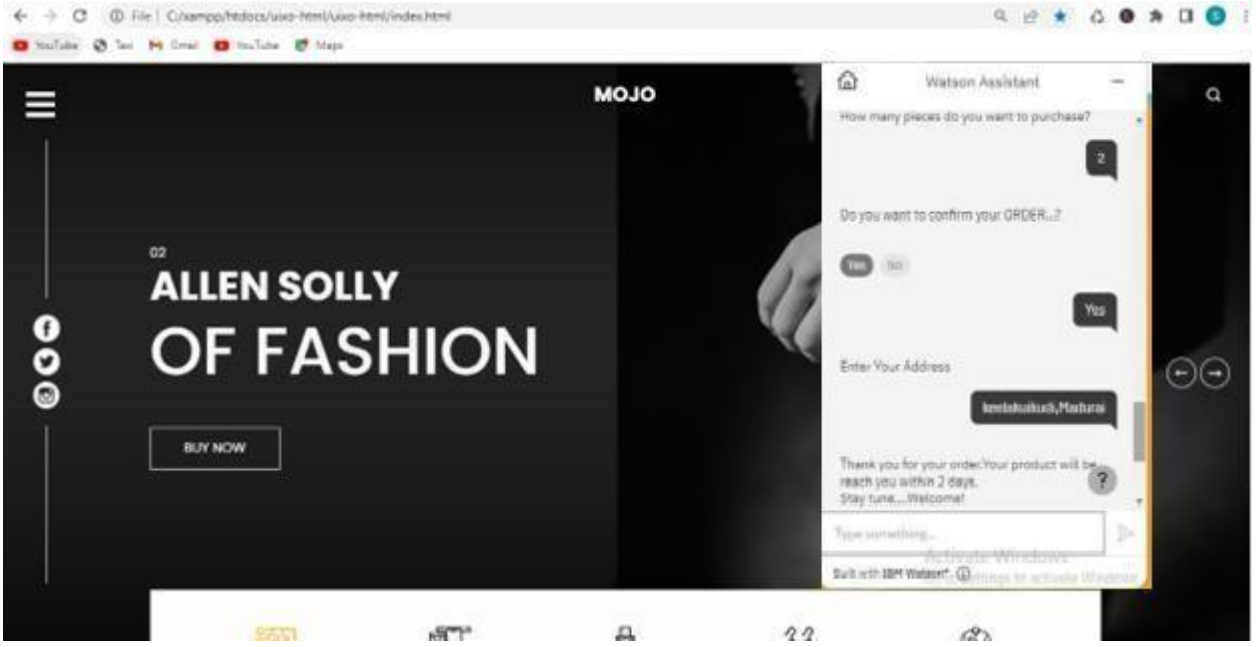
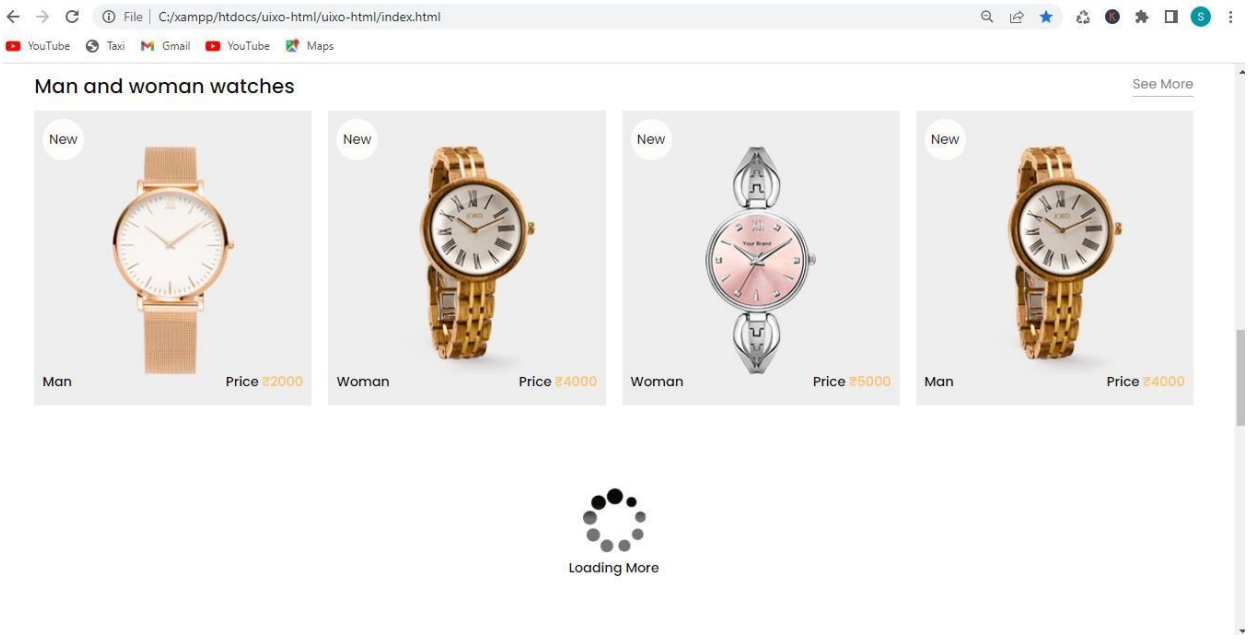
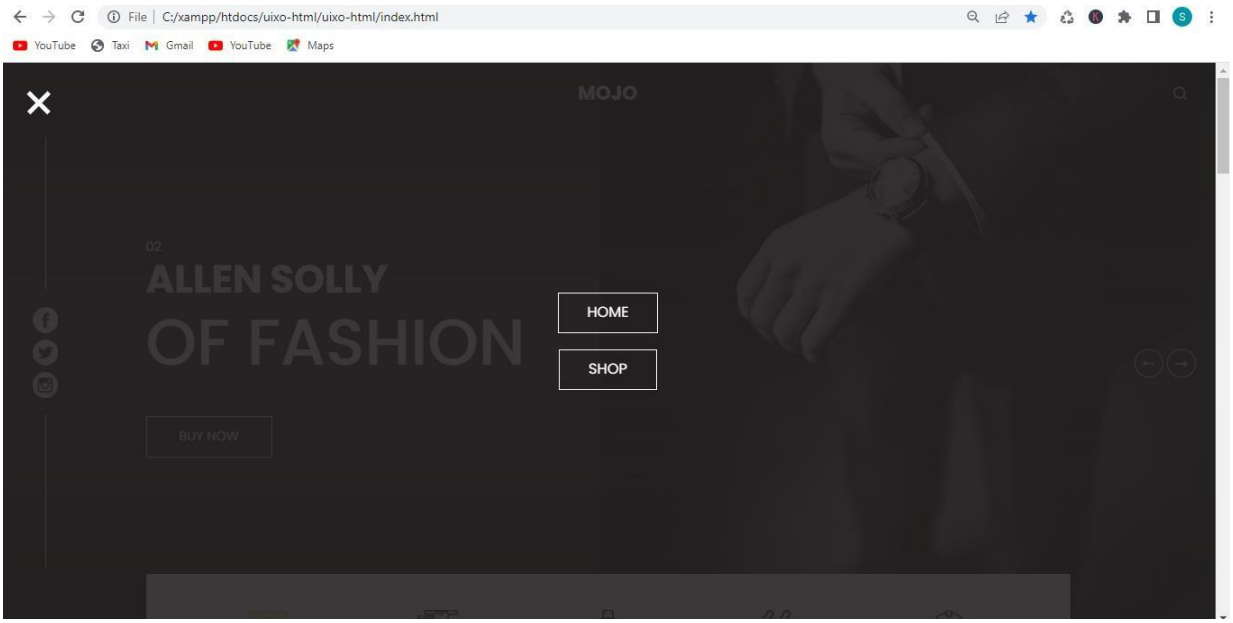




PNT2022TMID08681





1) app.py [Flask Code] :

```
from turtle import st

from flask import Flask, render_template, request, redirect, url_for, session

from markupsafe import escape

import os

from sendgrid import SendGridAPIClient

from sendgrid.helpers.mail import Mail

import ibm_db

conn = ibm_db.connect("DATABASE=bludb;HOSTNAME=824dfd4d-99de-440d-9991-
629c01b3832d.bs2io90l08kqb1od8lcg.databases.appdomain.cloud;PORT=30119;SECURITY=SSL;SSLServerCer
tificate=DigiCertGlobalRootCA.crt;UID=xhx40038;PWD=BDz5ow7439yj5PEd",",")

print ("Database connection established", conn)

app = Flask(_name_)

@app.route('/')

def home():

  return render_template('index.html')

@app.route('/addstudent')

def new_student():

   message =
Mail(from_email="nithishjaganathanpersonal@gmail.com",to_emails="nithishjaganathan@gmail.com",subject="
Account Registered Successfully",html_content="<p>Your account has been created using you provided email
address.</p>")

   try:

    sg = SendGridAPIClient("SG.Xng1uu2bQKSzCgu8j_Hj8Q.UFutNdzc2iwdrMfcbbdP4nmBa-r3NEex-
KWLdtMUbTo")

    response = sg.send(message)

   except Exception as e:

    print(e)

   return render_template('add_student.html')

@app.route('/loginpage')

def loginpage():

 return render_template('loginpage.html')
```

```
@app.route('/hpage')
def hpage():
  return render_template('hpage.html')
@app.route('/result')
def result():
  return render_template('result.html')
@app.route('/addrec',methods = ['POST', 'GET'])
def addrec():
  if request.method == 'POST':
    name = request.form['name']
    email = request.form['email']
    password = request.form['password']
    sql = "SELECT * FROM userdata WHERE name=? "
    stmt = ibm_db.prepare(conn, sql)
    ibm_db.bind_param(stmt,1,name)
    ibm_db.execute(stmt)
    account = ibm_db.fetch_assoc(stmt)
    if account:
      return render_template('loginpage.html', msg="please login using your details")
    else:
      insert_sql = "INSERT INTO userdata VALUES (?,?,?)"
      prep_stmt = ibm_db.prepare(conn, insert_sql)
      ibm_db.bind_param(prep_stmt, 1, name)
      ibm_db.bind_param(prep_stmt, 2, email)
      ibm_db.bind_param(prep_stmt, 3, password)
      ibm_db.execute(prep_stmt)
  return render_template('index.html', msg="Registered successfully")
@app.route('/check',methods = ['POST', 'GET'])
def check():
   if request.method == 'POST':
    email = request.form['email']
```

```
password = request.form['password']
  sql = "SELECT * FROM userdata WHERE email=? and password= ?"
  stmt = ibm_db.prepare(conn, sql)
  ibm_db.bind_param(stmt,1,email)
  ibm_db.bind_param(stmt,2,password)
  ibm_db.execute(stmt)
  account = ibm_db.fetch_assoc(stmt)
  if account:
    return render_template('result.html', msg="SUCCESSFULLY LOGIN")
  else:
    return render_template('loginpage.html', msg="Please check your credentials!")
```

1. registration.html :

```
<html>
<head>
</head>
<body bgcolor="#ADD8E6"><center>
<div class=" gradient-custom">
<div class="container">
<div class="row justify-content-center align-items-center">
<div class="">
<div class="card shadow-2-strong card-registration" style="border-radius: 100px;">
<div class="card-body ">
<h3 class="">Registration Form</h3>
<form>

<div class="row">
<div class="">

<div class="form-outline">
<label class="form-label" for="firstName">First Name</label>      

<input type="text" id="firstName" class="form-control form-control-lg"
/>      
```

```
</div>      
</div>
<div class="form-outline">
<label class="form-label" for="lastName">Last Name</label>      
<input type="text" id="lastName" class="form-control form-control-lg"
/>      

</div>      
</div>      
</div>
Gender       <br>  

<div class="form-check form-check-inline">    
<input class="form-check-input" type="radio" name="inlineRadioOptions" id="femaleGender"
value="option1" />
<label class="form-check-label" for="femaleGender">Female</label>
</div>
   
<div class="form-check form-check-inline">
<input class="form-check-input" type="radio" name="inlineRadioOptions" id="maleGender"
value="option2" />
<label class="form-check-label" for="maleGender">Male</label>
</div>
   
<div class="form-check form-check-inline">
<input class="form-check-input" type="radio" name="inlineRadioOptions" id="otherGender"
value="option3" />
<label class="form-check-label" for="otherGender">Other</label>
</div>
   
</div>
      

<div class="row">



<div class="form-outline">
<label class="form-label"
```

```
for="emailAddress">Email</label>          &
nbsp     
<input type="email" id="emailAddress" class="form-control form-control-lg"
/>      

</div>

</div>
      

<div class="form-outline">   

<label class="form-label" for="phoneNumber">Phone Number</label>   
<input type="tel" id="phoneNumber" class="form-control form-control-lg"
/>      
</div>

</div>

      
<div class="row">
      
<label class="form-label select-label">Choose option the location</label>
<select class="select form-control-lg">      
<option value="1" disabled>Choose option the location </option>
<option value="2">place</option>
<option value="3">Subject 2</option>
<option value="4">Subject 3</option>
</select>

          
</div>

       <div>
<input class="btn btn-primary btn-lg" type="submit" value="Submit"
/>      
</div>
      
</form>
```

```
</div>
</div>
</div>
</div>
</div>
</div></center>
</body>
</html>
```

2. loginpage.html :

```
<!DOCTYPE html>
<html>
<head>
<meta name="viewport" content="width=device-width, initial-scale=1">
<title> Login Page </title>
<style>
Body {
  font-family: Calibri, Helvetica, sans-serif;
  background-color: pink;
}
button {
       background-color: #4CAF50;
       width: 100%;
        color: light yellow;
        padding: 15px;
        margin: 10px 0px;
        border: none;
        cursor: pointer;
         }
 form {
        border: 3px solid #f1f1f1;
    }
 input[type=text], input[type=password] {
        width: 100%;
        margin: 8px 0;
        padding: 12px 20px;
        display: inline-block;
        border: 2px solid green;
        box-sizing: border-box;
    }
 button:hover {
        opacity: 0.7;
    }
```

```
 .cancelbtn {
      width: auto;
      padding: 10px 18px;
      margin: 10px 5px;
   }
.container {
      padding: 25px;
      background-color: lightblue;
   }
</style>
</head>
<body>
   <center> <h1> mojo login </h1> </center>
   <form>
      <div class="container">
         <label>Username : </label>
         <input type="text" placeholder="Enter Username" name="username" required>
         <label>Password : </label>
         <input type="password" placeholder="Enter Password" name="password" required>
         <button type="submit">Login</button>
         <input type="checkbox" checked="checked"> Remember me
         <button type="button" class="cancelbtn"> Cancel</button>
         Forgot <a href="#"> password? </a>
      </div>
   </form>
</body>
</html>
```

3. final code:

```
<body>
<form action="http://localhost/uixo-html/uixo-html/log.php" method="post">
<div class="hero_area">
<!-- header section strats -->
<header class="header_section">
<div class="container-fluid">
<nav class="navbar navbar-expand-lg custom_nav-container">
<div class="fk_width" id="">
<div class="custom_menu-btn">
<button onclick="openNav()">
<span class="s-1"> </span>
<span class="s-2"> </span>
<span class="s-3"> </span>
</button>
</div>
<div id="myNav" class="overlay">
<div class="overlay-content">
<a href="index.html">HOME</a>
<a href="shop.html">SHOP</a>
</div>
</div>
</div>
<a class="navbar-brand" href="index.html">
<span>
MOJO
</span>
</a>
<div>

<button class="btn  my-2 my-sm-0 nav_search-btn" type="submit"></button>

</div>
</nav>
</div>
```

```
</header>
<!-- end header section -->
<!-- slider section -->
<section class=" slider_section position-relative">
<div class="number-box">
<hr>
<div class="social_box">
<a href="https://www.facebook.com/people/Sidhes-War/100005779697839/">
<img src="images/fb.png" alt="">
</a>
<a href="">
<img src="images/twitter.png" alt="">
</a>
<a href="https://www.instagram.com/sidhes007/">
<img src="images/insta.png" alt="">
</a>
</div>
<hr>
</div>
<div class="container">
<div class="row">
<div class="col-lg-7 col-md-10">
<div id="carouselExampleIndicators" class="carousel slide" data-ride="carousel">
<div class="carousel-inner">
<div class="carousel-item active">
<div class="detail-box">
<div class="indicator_number">
01
</div>
<h2>
NIKE
</h2>
<h1>
of fashion
</h1>
```

```
<div>
<a href="">
Buy Now
</a>
</div>
</div>
</div>
<div class="carousel-item ">
<div class="detail-box">
<div class="indicator_number">
02
</div>
<h2>
allen solly
</h2>
<h1>
of fashion
</h1>
<div>
<a href="">
Buy Now
</a>
</div>
</div>
</div>
<div class="carousel-item ">
<div class="detail-box">
<div class="indicator_number">
03
</div>
<h2>
DERBY
</h2>
<h1>
of fashion
```

```
</h1>
<div>
<a href="">
Buy Now
</a>
</div>
</div>
</div>
</div>
<a class="carousel-control-prev" href="#carouselExampleIndicators" role="button" data-slide="prev">
<span class="sr-only">Previous</span>
</a>
<a class="carousel-control-next" href="#carouselExampleIndicators" role="button" data-slide="next">
<span class="sr-only">Next</span>
</a>
</div>

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

<!-- end slider section -->
</div>

<!-- category section -->

<section class="category_section ">
<div class="container">
<div class="category_container">
<div class="box">

<div class="img-box">
<img src="images/fashion.png" alt="" class="img-1">
<img src="images/fashion-yellow.png" alt="" class="img-2">
```

```
</div>
<h6>
New Fashion
</h6>

</div>
<div class="box">

<div class="img-box">
<img src="images/clothing.png" alt="" class="img-1">
<img src="images/clothing-yellow.png" alt="" class="img-2">
</div>
<h6>
Clothing
</h6>

</div>
<div class="box">

<div class="img-box">
<img src="images/watch.png" alt="" class="img-1">
<img src="images/watch-yellow.png" alt="" class="img-2">
</div>
<h6>
Watches
</h6>

</div>
<div class="box">
<a href="">
<div class="img-box">
<img src="images/accessory.png" alt="" class="img-1">
<img src="images/accessory-yellow.png" alt="" class="img-2">
</div>
<h6>
```

```
Accessories
</h6>
</a>
</div>
<div class="box">
<a href="">
<div class="img-box">
<img src="images/jacket.png" alt="" class="img-1">
<img src="images/jacket-yellow.png" alt="" class="img-2">
</div>
<h6>
Sweaters & Jackets
</h6>
</a>
</div>
</div>
</div>
</section>
<!-- end category section -->

<!-- shop section -->

<section class="shop_section layout_padding-top layout_padding2-bottom">
<div class="container-fluid">
<div class="custom_heading">
<h4>
01
</h4>
<hr>
<h3>
Shop The Latest
</h3>
</div>
<div class="shop_content">
<div class="shop_heading">
```

```
<h4>
Man Fashions
</h4>
<a href="">
See More
</a>
</div>
<div class="shop_container">
<div class="box">

<div class="img-box">
<img src="images/m-1.png" alt="">
</div>
<div class="detail-box">
<h6>
Man Corut
</h6>
<h6>
Price
<span>
₹10000
</span>
</h6>
</div>

<input type="submit" value="Buy now"/>

</div>
<div class="box">

<div class="img-box">
<img src="images/m-2.png" alt="">
</div>
<div class="detail-box">
<h6>
```

```
Man Pent -shirt
</h6>
<h6>
Price
<span>
₹7000
</span>
</h6>
</div>
<div class="new">
<span>
<input type="submit" value="Buy now"/>
</span>
</div>

</div>
<div class="box">
<a href="">
<div class="img-box">
<img src="images/m-3.png" alt="">
</div>
<div class="detail-box">
<h6>
Man Corut
</h6>
<h6>
Price
<span>
₹4000
</span>
</h6>
</div>
<div class="new">
<span>
New
```

```
</span>
</div>
</a>
</div>
<div class="box">
<a href="">
<div class="img-box">
<img src="images/m-4.png" alt="">
</div>
<div class="detail-box">
<h6>
Man Pent -shirt
</h6>
<h6>
Price
<span>
₹6000
</span>
</h6>
</div>
<div class="new">
<span>
New
</span>
</div>
</a>
</div>
</div>
</div>
<div class="shop_content">
<div class="shop_heading">
<h4>
Woman Fashions
</h4>
<a href="">
```

```
See More
</a>
</div>
<div class="shop_container">
<div class="box">

<div class="img-box">
<img src="images/w-1.png" alt="">
</div>
<div class="detail-box">
<h6>
Woman
</h6>
<h6>
Price
<span>
₹6000
</span>
</h6>
</div>
<input type="submit" value="Buy now"/>


</div>
<div class="box">

<div class="img-box">
<img src="images/w-2.png" alt="">
</div>
<div class="detail-box">
<h6>
Woman
</h6>
<h6>
Price
```

```
<span>
₹4000
</span>
</h6>
</div>
<div class="new">
<span>
New
</span>
</div>

</div>
<div class="box">

<div class="img-box">
<img src="images/w-3.png" alt="">
</div>
<div class="detail-box">
<h6>
Woman
</h6>
<h6>
Price
<span>
₹2000
</span>
</h6>
</div>
<div class="new">
<span>
<input type="submit" value="Buy now"/>
</span>
</div>

</div>
```

```
<div class="box">

<div class="img-box">
<img src="images/w-4.png" alt="">
</div>
<div class="detail-box">
<h6>
Woman
</h6>
<h6>
Price
<span>
₹2000
</span>
</h6>
</div>

<span>
<input type="submit" value="Buy now"/>
</span>



</div>
</div>
</div>
<div class="shop_content">
<div class="shop_heading">
<h4>
Man and woman watches
</h4>

See More

</div>
<div class="shop_container">
```

```
<div class="box">
<a href="">
<div class="img-box">
<img src="images/watch-1.png" alt="">
</div>
<div class="detail-box">
<h6>
Man
</h6>
<h6>
Price
<span>
₹2000
</span>
</h6>
</div>
<div class="new">
<span>
<input type="submit" value="Buy now"/>
</span>
</div>

</div>
<div class="box">

<div class="img-box">
<img src="images/watch-2.png" alt="">
</div>
<div class="detail-box">
<h6>
Woman
</h6>
<h6>
Price
<span>
```

```
₹4000
</span>
</h6>
</div>
<div class="new">
<span>
New
</span>
</div>

</div>
<div class="box">

<div class="img-box">
<img src="images/watch-3.png" alt="">
</div>
<div class="detail-box">
<h6>
Woman
</h6>
<h6>
Price
<span>
₹5000
</span>
</h6>
</div>
<div class="new">
<span>
New
</span>
</div>

</div>
<div class="box">
```

```
<div class="img-box">
<img src="images/watch-4.png" alt="">
</div>
<div class="detail-box">
<h6>
Man
</h6>
<h6>
Price
<span>
₹4000
</span>
</h6>
</div>
<div class="new">
<span>
New
</span>
</div>

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

<!-- end shop section -->

<!-- loading box -->

<div class="loading_box">
<div class="img-box">
<img src="images/loader.png" alt="">
</div>
```

```
<div class="detail-box">
<h6>
Loading More
</h6>
</div>
</div>

<!-- end loading box -->

<!-- get section -->

<section class="get_section">
<div class="container-fluid">
<div class="row">
<div class="col-md-6 offset-md-1">
<div class="detail-box">
<h2>
Get <span>50%</span> off on Every Iteams
</h2>
<p>
"what I Find most intersting in fashion is that it has to refleet our have to witness your own moment"
</p>
<a href="">
Buy Now

</div>
</div>
<div class="col-md-5">
<div class="img-box">
<img src="images/get-img.jpg" alt="">
</div>
</div>
</div>
</div>
</section>
```

```
<!-- end get section -->


<!-- client section -->

<section class="client_section layout_padding">
<div class="container">
<div class="custom_heading">
<h4>
02
</h4>
<hr>
<h3>
What is says our customer
</h3>
</div>
</div>
<div class="client_container layout_padding2-top">
<div id="carouselExample2Controls" class="carousel slide" data-ride="carousel">
<div class="carousel-inner">
<div class="carousel-item active">
<div class="container">
<div class="box">
<div class="detail-box">
<p>
I found various brands here with exciting offers and all new collections available love it
</p>
<p>
its really awesome and good quality products and seen only orginal items

</p>
</div>
<div class="client-id">
<div class="img-box">
```

```
<img src="" alt="">
</div>
<div class="name">
<h5>
jisholin
</h5>
<h6>
student
</h6>
</div>
</div>
</div>
</div>
</div>
<div class="carousel-item">
<div class="container">
<div class="box">
<div class="detail-box">
<p>
come up with ur money and get back our fashion here

</p>
<p>
five star *****
</p>
</div>
<div class="client-id">
<div class="img-box">
<img src="images/client.jpg" alt="">
</div>
<div class="name">
<h5>
SIDHU
</h5>
<h6>
```

```
enterpruner
</h6>
</div>
</div>
</div>
</div>
</div>
<div class="carousel-item">
<div class="container">
<div class="box">
<div class="detail-box">
<p>
chet it out only orginal products available
</p>
<p>
nice quality and many collections
</p>
</div>
<div class="client-id">
<div class="img-box">
<img src="" alt="">
</div>
<div class="name">
<h5>
THENNI
</h5>
<h6>
student
</h6>
</div>
</div>
</div>
</div>
</div>
```

```
<div class="carousel-item">
<div class="container">
<div class="box">
<div class="detail-box">
<p>
Many brand they have it
</p>
<p>
I such love it
</p>
</div>

<div class="client-id">
<div class="img-box">
<img src="" alt="">
</div>
<div class="name">
<h5>
Rakul
</h5>
<h6>
student
</h6>
</div>
</div>
</div>
</div>
</div>
</div>
<a class="carousel-control-prev" href="#carouselExample2Controls" role="button" data-slide="prev">
<span class="sr-only">Previous</span>
</a>
<a class="carousel-control-next" href="#carouselExample2Controls" role="button" data-slide="next">
<span class="sr-only">Next</span>
```

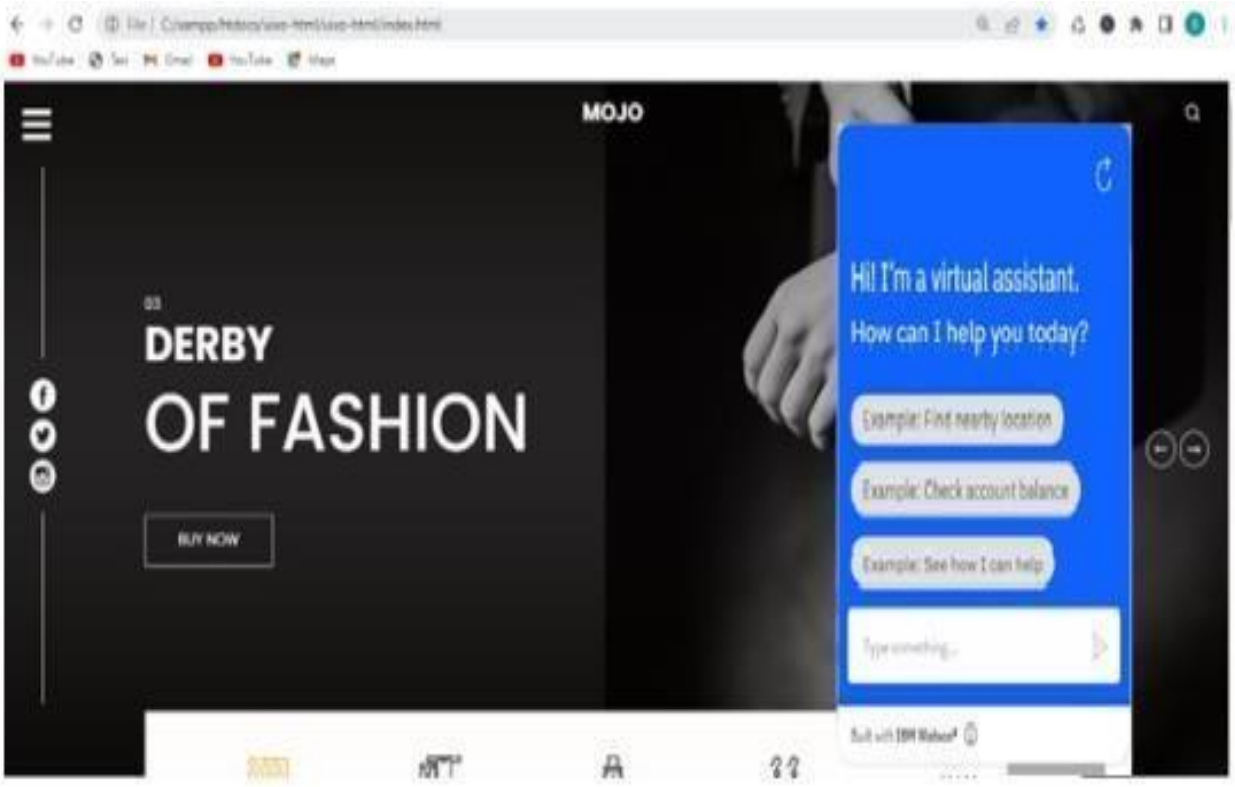
```
</a>
</div>

</div>
</div>
</section>
<!-- end client section -->


<!-- footer section -->
<footer class="footer_section layout_padding2">
<div class="social_container">
<h4>
Follow Us
</h4>
<div class="social-box">
<hr>
<div>
<a href="https://www.facebook.com/people/Sidhes-War/100005779697839/">
<img src="images/fb.png" alt="">
</a>
</div>
<hr>
<div>
<a href="">
<img src="images/twitter.png" alt="">
</a>
</div>
<hr>
<div>
<a href="https://www.instagram.com/sidhes007/">
<img src="images/insta.png" alt="">
</a>
</div>
<hr>
```

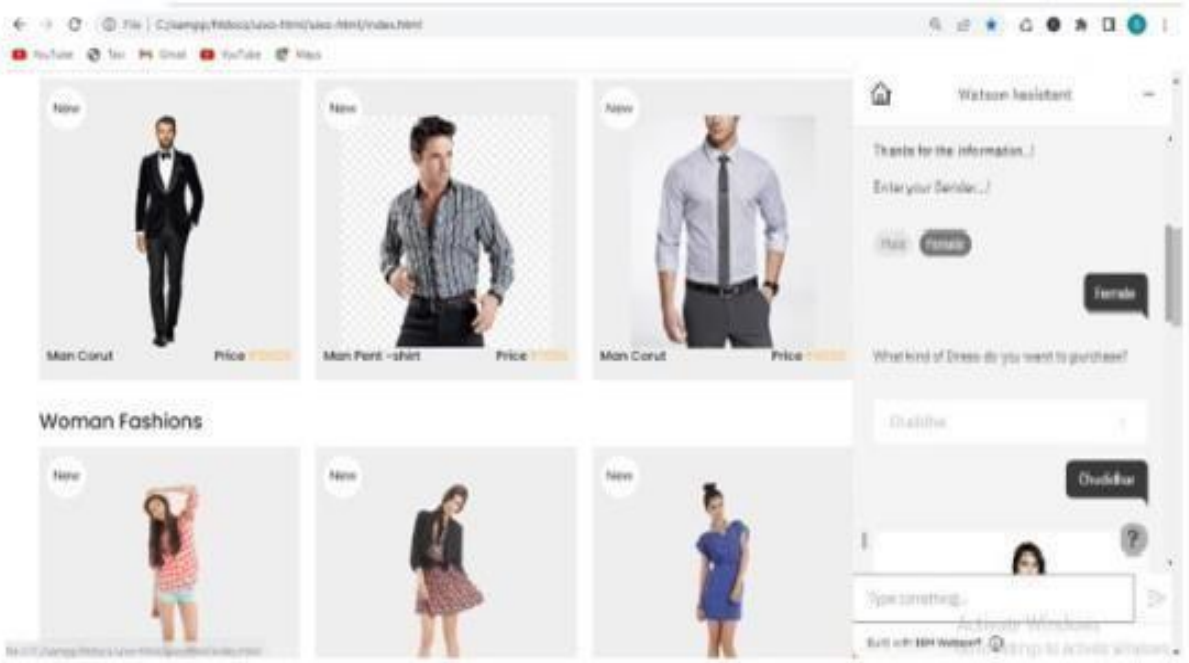
```
</div>
</div>

</footer>
<!-- footer section -->

<script src="js/jquery-3.4.1.min.js"></script>
<script src="js/bootstrap.js"></script>
</script>
<script>
function openNav() {
document.getElementById("myNav").classList.toggle("menu_width");
document
.querySelector(".custom_menu-btn")
.classList.toggle("menu_btn-style");

}
</script>
</form>
</body>

</html>
```

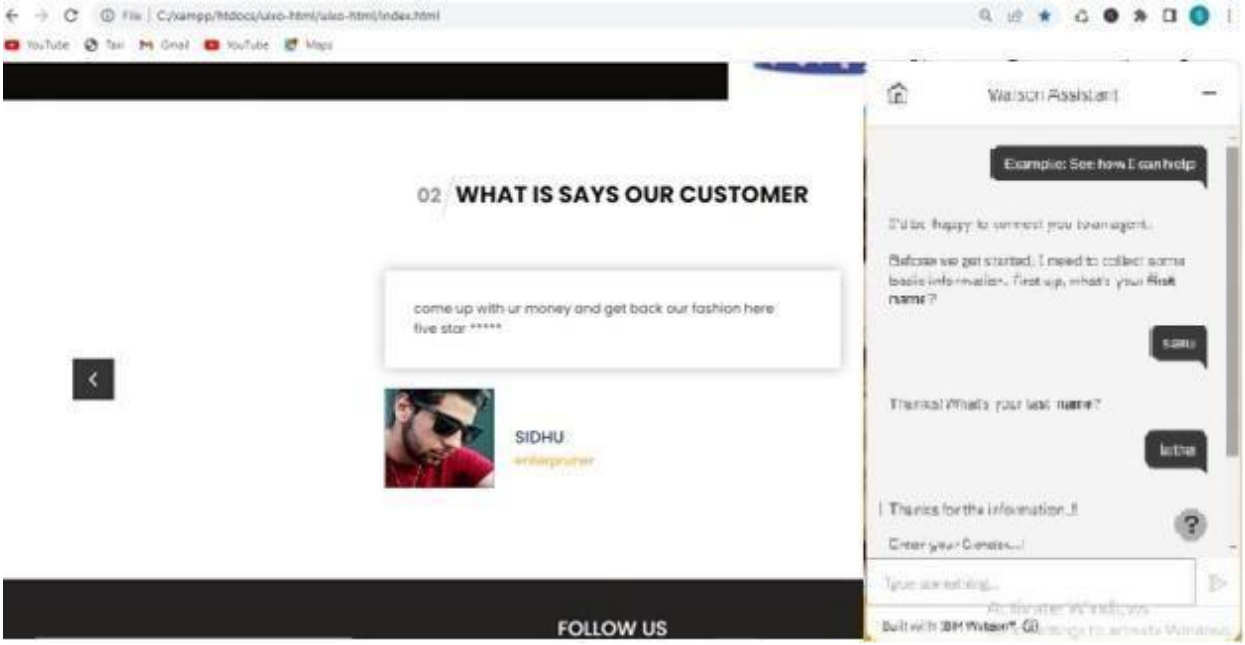
7.2CHATBOT (SOURCE CODE) : [SMARTY ASSISTANT]

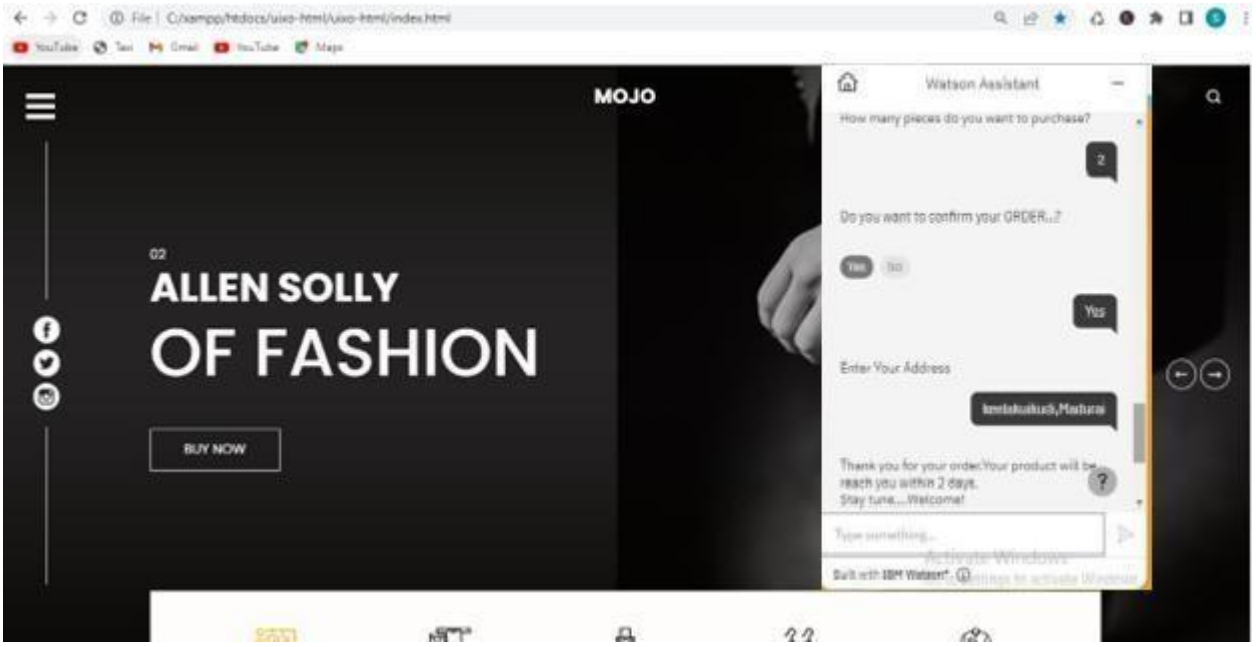
Code:

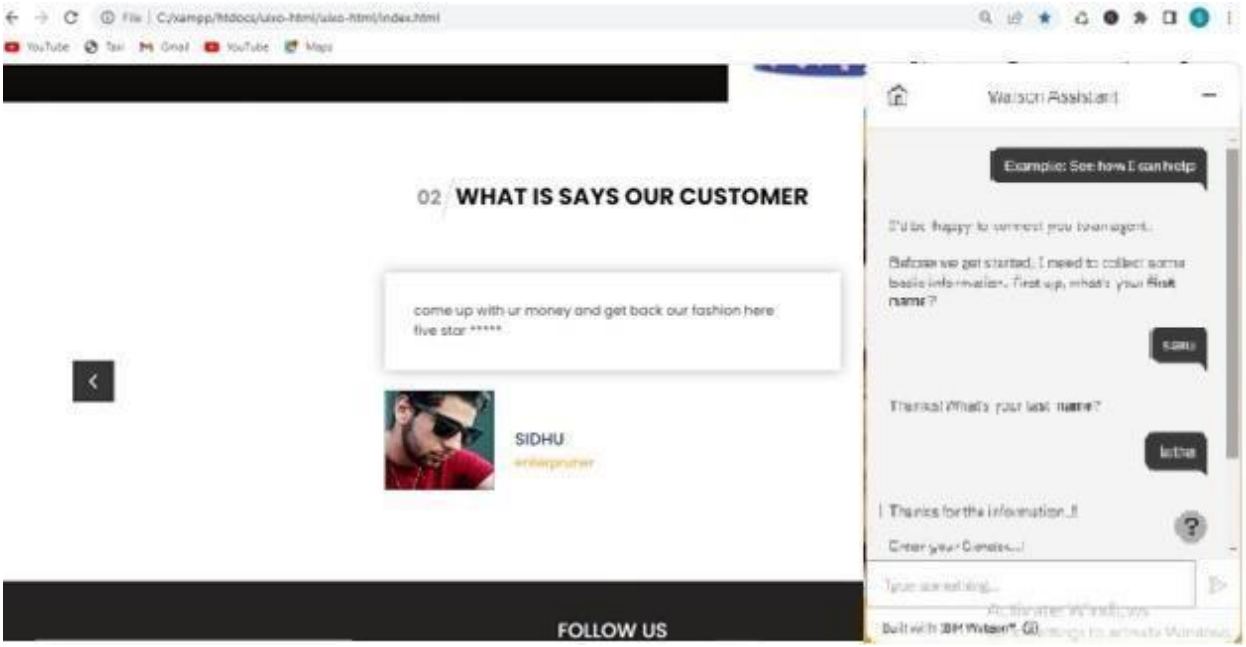
```
<script> window. watsonAssistantChatOptions = { integrationID: "f575ccb9-7f1a4cebb32b-23f9d2a71c7a", // The ID of this integration. region: "au-syd", // The region
your integration is hosted in.
serviceInstanceID: "c8db2a25-708c-4bac-bb36-d9b5b790d6d3", // The ID of your service
instance.
onLoad: 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>
```




Man Corut
Man Pent -shirt
Man Corut
Woman Fashions
Watson Assistant
Female
Ovalidhar


02 WHAT IS SAYS OUR CUSTOMER
come up with ur money and get back our fashion here five star *****
SIDHU
FOLLOW US
Watson Assistant
Example: See how I can help
sanu
latha


MOJO
02
ALLEN SOLLY
OF FASHION
BUY NOW
Watson Assistant
How many pieces do you want to purchase?
2
Do you want to confirm your ORDER..?
Yes
Enter Your Address
Thank you for your order,Your product will be reach you within 2 days.
Stay tune....Welcome!
Type something...


02 WHAT IS SAYS OUR CUSTOMER
come up with ur money and get back our fashion here
five star *****
SIDHU
FOLLOW US
Example: See how I can help
Before we get started, I need to collect some basic information. First up, what's your first name ?
saru
Thanks! What's your last name?
latha
Thanks for the information !!

4 .Shop.html

```
<title>MOJO</title>

<!-- bootstrap core css -->
<link rel="stylesheet" type="text/css" href="css/bootstrap.css" />

<!-- fonts style -->
<link
href="https://fonts.googleapis.com/css?family=Open+Sans:400,700|Poppins:400,500,700&display=swap"
rel="stylesheet" />

<!-- Custom styles for this template -->
<link href="css/style.css" rel="stylesheet" />
<!-- responsive style -->
<link href="css/responsive.css" rel="stylesheet" />
</head>

<body class="sub_page">
<div class="hero_area">
<!-- header section strats -->
<header class="header_section">
<div class="container-fluid">
<nav class="navbar navbar-expand-lg custom_nav-container">
<div class="fk_width" id="">
<div class="custom_menu-btn">
<button onclick="openNav()">
<span class="s-1"> </span>
<span class="s-2"> </span>
<span class="s-3"> </span>
</button>
</div>
<div id="myNav" class="overlay">
<div class="overlay-content">
<a href="index.html">HOME</a>
```

```
<a href="shop.html">SHOP</a>
</div>
</div>
</div>
<a class="navbar-brand" href="index.html">
<span>
MOJO
</span>
</a>
<div>
<form class="form-inline my-2 my-lg-0  mb-3 mb-lg-0">
<button class="btn  my-2 my-sm-0 nav_search-btn" type="submit"></button>
</form>
</div>
</nav>
</div>
</header>
<!-- end header section -->

</div>

<!-- category section -->

<section class="category_section ">
<div class="container">
<div class="category_container">
<div class="box">
<a href="" class="active">
<div class="img-box">
<img src="images/fashion.png" alt="" class="img-1">
<img src="images/fashion-yellow.png" alt="" class="img-2">
</div>
<h6>
New Fashion
</h6>
```

```
</a>
</div>
<div class="box">
<a href="">
<div class="img-box">
<img src="images/clothing.png" alt="" class="img-1">
<img src="images/clothing-yellow.png" alt="" class="img-2">
</div>
<h6>
Clothing
</h6>
</a>
</div>
<div class="box">
<a href="">
<div class="img-box">
<img src="images/watch.png" alt="" class="img-1">
<img src="images/watch-yellow.png" alt="" class="img-2">
</div>
<h6>
Watches
</h6>
</a>
</div>
<div class="box">
<a href="">
<div class="img-box">
<img src="images/accessory.png" alt="" class="img-1">
<img src="images/accessory-yellow.png" alt="" class="img-2">
</div>
<h6>
Accessories
</h6>
</a>
</div>
```

```
<div class="box">
<a href="">
<div class="img-box">
<img src="images/jacket.png" alt="" class="img-1">
<img src="images/jacket-yellow.png" alt="" class="img-2">
</div>
<h6>
Sweaters & Jackets
</h6>
</a>
</div>
</div>
</div>
</section>
<!-- end category section -->

<!-- shop section -->

<section class="shop_section layout_padding-top layout_padding2-bottom">
<div class="container-fluid">
<div class="custom_heading">
<h4>
01
</h4>
<hr>
<h3>
Shop The Latest
</h3>
</div>
<div class="shop_content">
<div class="shop_heading">
<h4>
Man Fashions
</h4>
<a href="">
```

```
See More
</a>
</div>
<div class="shop_container">
<div class="box">
<a href="">
<div class="img-box">
<img src="images/m-1.png" alt="">
</div>
<div class="detail-box">
<h6>
Man Corut
</h6>
<h6>
Price
<span>
₹10000
</span>
</h6>
</div>
<div class="new">
<span>
New
</span>
</div>
</a>
</div>
<div class="box">
<a href="">
<div class="img-box">
<img src="images/m-2.png" alt="">
</div>
<div class="detail-box">
<h6>
Man Pent -shirt
```

```
</h6>
<h6>
Price
<span>
₹7000
</span>
</h6>
</div>
<div class="new">
<span>
New
</span>
</div>
</a>
</div>
<div class="box">
<a href="">
<div class="img-box">
<img src="images/m-3.png" alt="">
</div>
<div class="detail-box">
<h6>
Man Corut
</h6>
<h6>
Price
<span>
₹4000
</span>
</h6>
</div>
<div class="new">
<span>
New
</span>
```

```
</div>
</a>
</div>
<div class="box">
<a href="">
<div class="img-box">
<img src="images/m-4.png" alt="">
</div>
<div class="detail-box">
<h6>
Man Pent -shirt
</h6>
<h6>
Price
<span>
₹6000
</span>
</h6>
</div>
<div class="new">
<span>
New
</span>
</div>
</a>
</div>
</div>
</div>
<div class="shop_content">
<div class="shop_heading">
<h4>
Woman Fashions
</h4>
<a href="">
See More
```

```
</a>
</div>
<div class="shop_container">
<div class="box">
<a href="">
<div class="img-box">
<img src="images/w-1.png" alt="">
</div>
<div class="detail-box">
<h6>
Woman
</h6>
<h6>
Price
<span>
₹6000
</span>
</h6>
</div>
<div class="new">
<span>
New
</span>
</div>
</a>
</div>
<div class="box">
<a href="">
<div class="img-box">
<img src="images/w-2.png" alt="">
</div>
<div class="detail-box">
<h6>
Woman
</h6>
```

```
<h6>
Price
<span>
₹4000
</span>
</h6>
</div>
<div class="new">
<span>
New
</span>
</div>
</a>
</div>
<div class="box">
<a href="">
<div class="img-box">
<img src="images/w-3.png" alt="">
</div>
<div class="detail-box">
<h6>
Woman
</h6>
<h6>
Price
<span>
₹2000
</span>
</h6>
</div>
<div class="new">
<span>
New
</span>
</div>
```

```
</a>
</div>
<div class="box">
<a href="">
<div class="img-box">
<img src="images/w-4.png" alt="">
</div>
<div class="detail-box">
<h6>
Woman
</h6>
<h6>
Price
<span>
₹2000
</span>
</h6>
</div>
<div class="new">
<span>
New
</span>
</div>
</a>
</div>
</div>
</div>
<div class="shop_content">
<div class="shop_heading">
<h4>
Man and woman watches
</h4>
<a href="">
See More
</a>
```

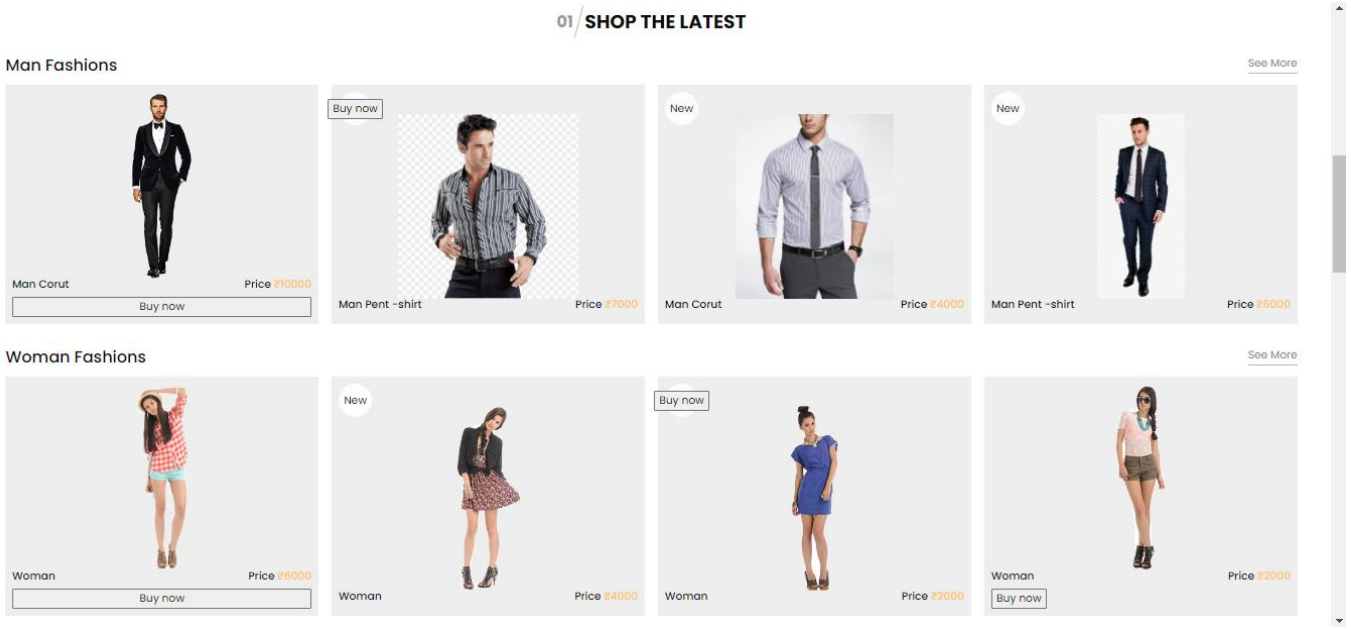
```
</div>
<div class="shop_container">
<div class="box">
<a href="">
<div class="img-box">
<img src="images/watch-1.png" alt="">
</div>
<div class="detail-box">
<h6>
Man
</h6>
<h6>
Price
<span>
₹2000
</span>
</h6>
</div>
<div class="new">
<span>
New
</span>
</div>
</a>
</div>
<div class="box">
<a href="">
<div class="img-box">
<img src="images/watch-2.png" alt="">
</div>
<div class="detail-box">
<h6>
Woman
</h6>
<h6>
```

```
Price
<span>
₹4000
</span>
</h6>
</div>
<div class="new">
<span>
New
</span>
</div>
</a>
</div>
<div class="box">
<a href="">
<div class="img-box">
<img src="images/watch-3.png" alt="">
</div>
<div class="detail-box">
<h6>
Woman
</h6>
<h6>
Price
<span>
₹5000
</span>
</h6>
</div>
<div class="new">
<span>
New
</span>
</div>
</a>
```

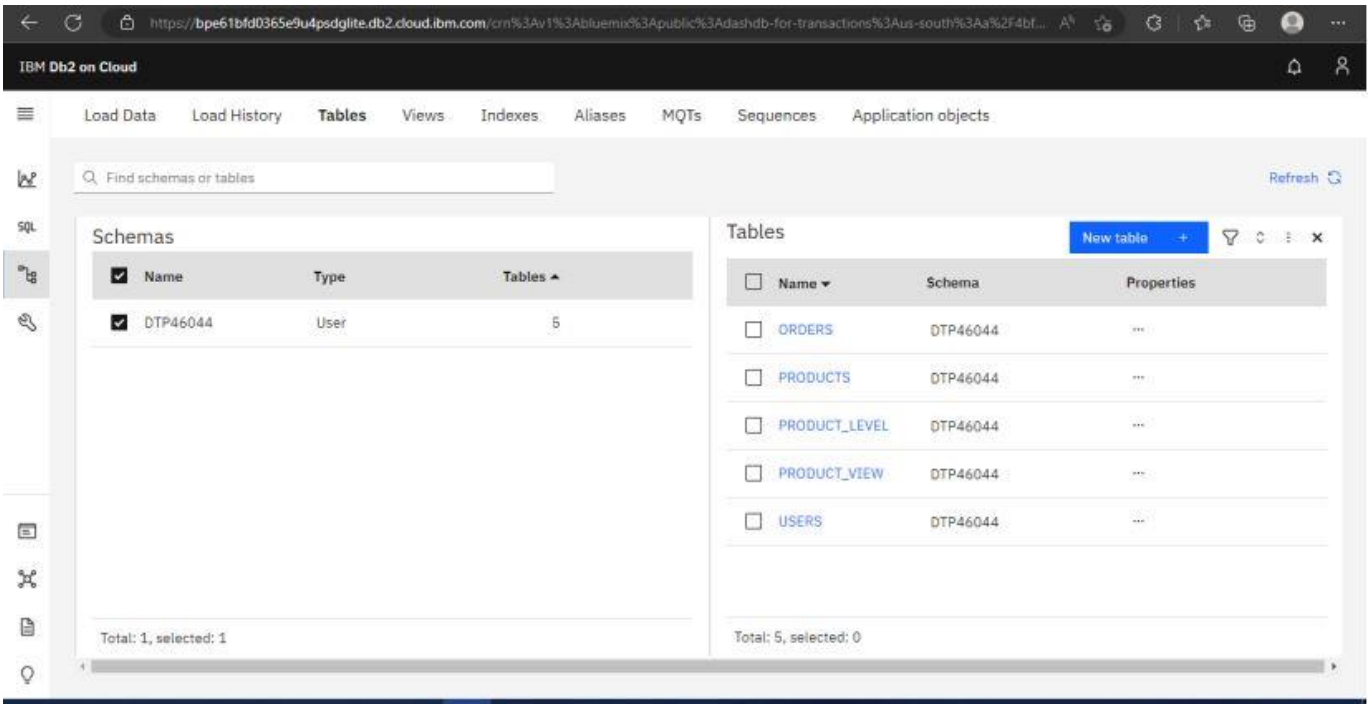
```
</div>
<div class="box">
<a href="">
<div class="img-box">
<img src="images/watch-4.png" alt="">
</div>
<div class="detail-box">
<h6>
Man
</h6>
<h6>
Price
<span>
₹4000
</span>
</h6>
</div>
<div class="new">
<span>
New
</span>
</div>
</a>
</div>
</div>
</div>
</div>
</section>

<!-- end shop section -->

<!-- loading box -->

<div class="loading_box">
<div class="img-box">
```

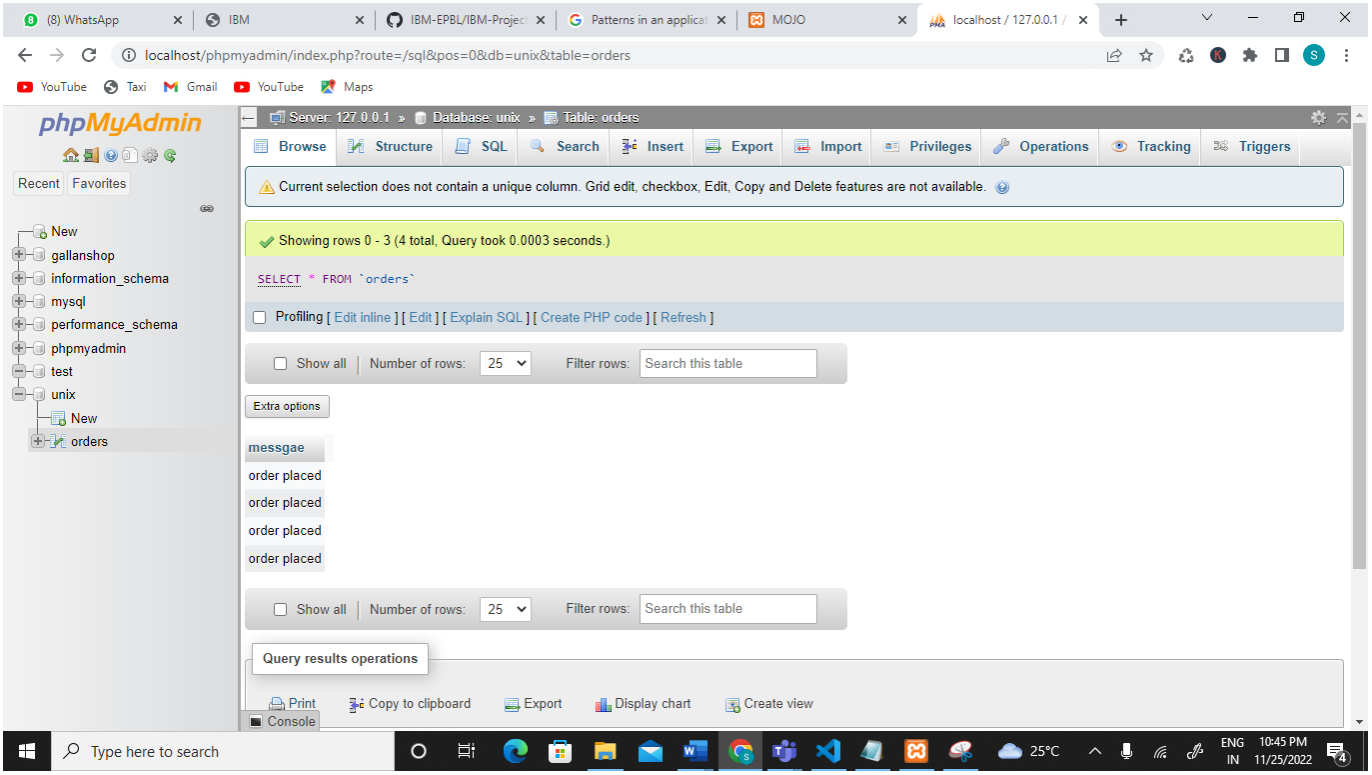
```
<img src="images/loader.png" alt="">
</div>
<div class="detail-box">
<h6>
Loading More
</h6>
</div>
</div>

<!-- end loading box -->

<!-- footer section -->
<footer class="footer_section layout_padding2">
<div class="social_container">
<h4>
Follow Us
</h4>
<div class="social-box">
<hr>
<div>
<a href="">
<img src="images/fb.png" alt="">
</a>
</div>
<hr>
<div>
<a href="">
<img src="images/twitter.png" alt="">
</a>
</div>
<hr>
<div>
<a href="">
<img src="images/insta.png" alt="">
</a>
```

```
</div>
<hr>
</div>
</div>
</footer>
<!-- footer section -->

<script src="js/jquery-3.4.1.min.js"></script>
<script src="js/bootstrap.js"></script>
</script>
<script>
function openNav() {
document.getElementById("myNav").classList.toggle("menu_width");
document
.querySelector(".custom_menu-btn")
.classList.toggle("menu_btn-style");

}
</script>
</body>
</html>
```



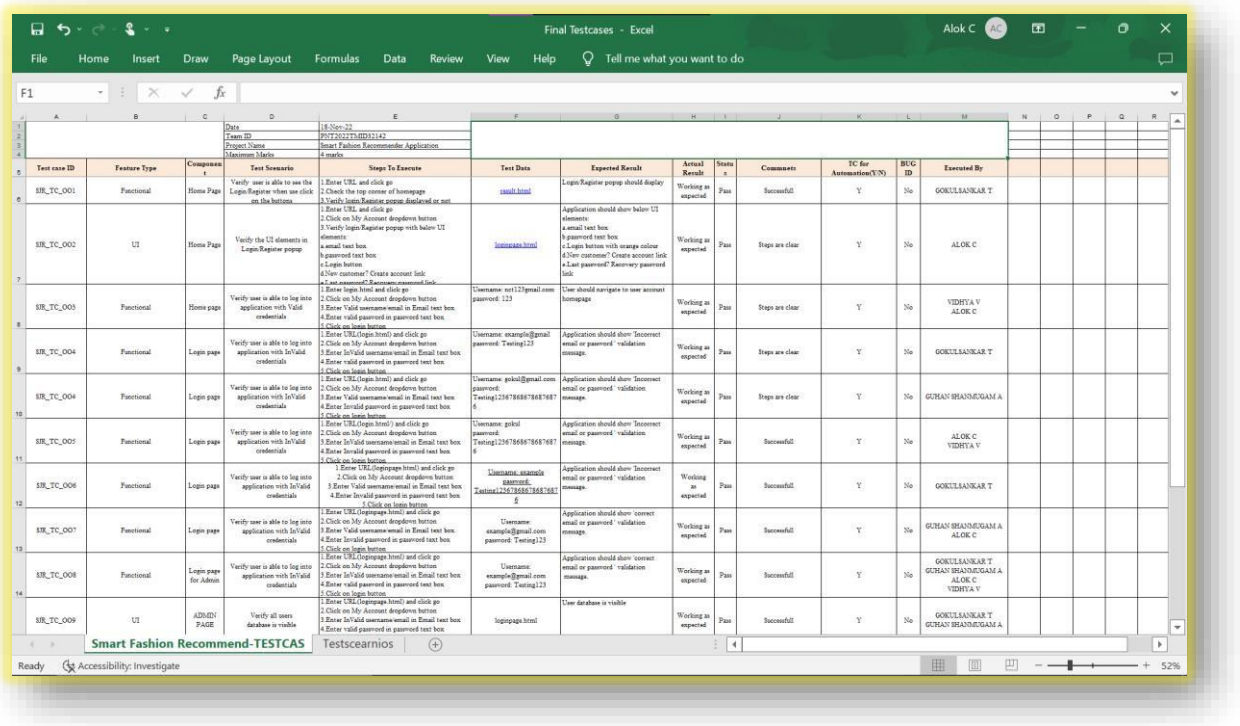
7.3 DATABASE SCHEMA:





8.TESTING

8.1 TEST CASES:



Final Testcases - Excel

Test case ID	Feature Type	Component	Test Scenario	Steps To Execute	Test Data	Expected Result	Actual Result	Status	Comments	TC for Automation(Y/N)	BUG ID	Executed By
SR_TC_001	Functional	Home Page	Verify user is able to see the Login/Register when use click on the buttons	1.Enter URL and click go 2.Check the top corner of homepage 3.Verify login/Register popup displayed or not	result.html	Login/Register popup should display	Working as expected	Pass	Successfull	Y	No	GOKULSANKAR T
SR_TC_002	UI	Home Page	Verify the UI elements in Login/Register popup	1.Enter URL and click go 2.Click on My Account dropdown button 3.Verify login/Register 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	loginpage.html	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	Steps are clear	Y	No	ALOK C
SR_TC_003	Functional	Home page	Verify user is able to log into application with Valid credentials	1.Enter login.html 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: nrt123@gmail.com password: 123	User should navigate to user account homepage	Working as expected	Pass	Steps are clear	Y	No	VIDHYA V ALOK C
SR_TC_004	Functional	Login page	Verify user is able to log into application with InValid credentials	1.Enter URL(login.html) 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: example@gmail password: Testing123	Application should show 'Incorrect email or password ' validation message.	Working as expected	Pass	Steps are clear	Y	No	GOKULSANKAR T
SR_TC_004	Functional	Login page	Verify user is able to log into application with InValid credentials	1.Enter URL(login.html) 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: gokul@gmail.com password: Testing12367868678687687 6	Application should show 'Incorrect email or password ' validation message.	Working as expected	Pass	Steps are clear	Y	No	GUHAN SHANMUGAM A
SR_TC_005	Functional	Login page	Verify user is able to log into application with InValid credentials	1.Enter URL(login.html) 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: gokul password: Testing12367868678687687 6	Application should show 'Incorrect email or password ' validation message.	Working as expected	Pass	Successfull	Y	No	ALOK C VIDHYA V
SR_TC_006	Functional	Login page	Verify user is able to log into application with InValid credentials	1.Enter URL(loginpage.html) 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: example password: Testing12367868678687687 6	Application should show 'Incorrect email or password ' validation message.	Working as expected	Pass	Successfull	Y	No	GOKULSANKAR T
SR_TC_007	Functional	Login page	Verify user is able to log into application with InValid credentials	1.Enter URL(loginpage.html) 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: example@gmail.com password: Testing123	Application should show 'correct email or password ' validation message.	Working as expected	Pass	Successfull	Y	No	GUHAN SHANMUGAM A ALOK C
SR_TC_008	Functional	Login page for Admin	Verify user is able to log into application with InValid credentials	1.Enter URL(loginpage.html) 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: example@gmail.com password: Testing123	Application should show 'correct email or password ' validation message.	Working as expected	Pass	Successfull	Y	No	GOKULSANKAR T GUHAN SHANMUGAM A ALOK C VIDHYA V
SR_TC_009	UI	ADMIN PAGE	Verify all users database is visible	1.Enter URL(loginpage.html) 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	loginpage.html	User database is visible	Working as expected	Pass	Successfull	Y	No	GOKULSANKAR T GUHAN SHANMUGAM A

Smart Fashion Recommend-TESTCAS | Testscearnios

8.2 USER ACCEPTANCE TESTING (UAT) :

1. PURPOSE OF DOCUMENT :

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

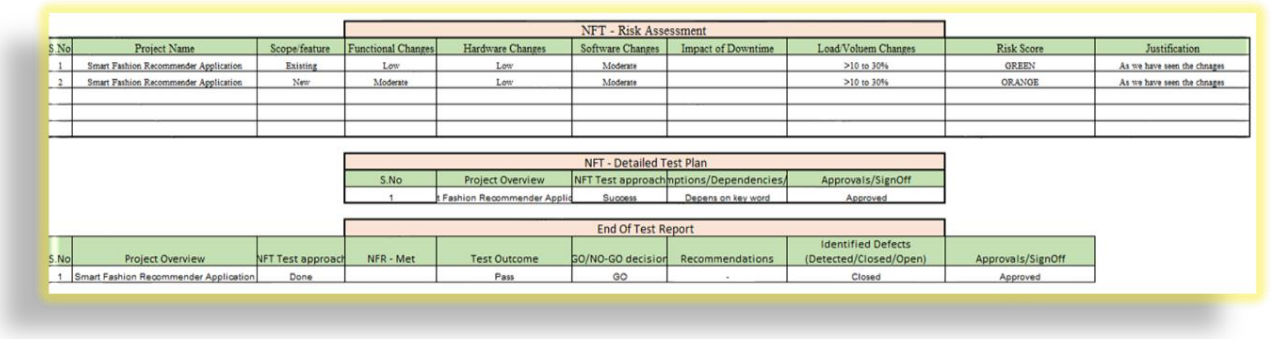
2. DEFECT ANALYSIS DEFECT ANALYSIS :

Resolution	Severity 1	Severity 2	Severity 3	Severity 4	Sub Total
By Design	12	5	0	5	20
Duplicate	4	0	4	65	58
External	2	3	0	1	7
Fixed	7	5	4	16	35
Not Reproduced	6	0	2	0	7
Skipped	0	7	0	8	15
Won't Fix	1	8	0	2	8
Totals	29	14	6	30	70

3. TEST CASES ANALYSIS :

Section	Total Cases	Not Tested	Fail	Pass
Print Engine	12	0	0	12
Client Application	45	0	0	45
Security	2	0	0	2
Outsource Shipping	2	0	0	2
Exception Reporting	6	0	0	6
Final Report Output	5	0	0	5
Version Control	2	0	0	2

8.3 PERFORMANCE TESTING :



NFT - Risk Assessment

S.No	Project Name	Scope/feature	Functional Changes	Hardware Changes	Software Changes	Impact of Downtime	Load/Volum Changes	Risk Score	Justification
1	Smart Fashion Recommender Application	Existing	Low	Low	Moderate		>10 to 30%	GREEN	As we have seen the chnages
2	Smart Fashion Recommender Application	New	Moderate	Low	Moderate		>10 to 30%	ORANGE	As we have seen the chnages

NFT - Detailed Test Plan

S.No	Project Overview	NFT Test approach	nptions/Dependencies/	Approvals/SignOff
1	t Fashion Recommender Applic	Success	Depens on key word	Approved

End Of Test Report

S.No	Project Overview	NFT Test approach	NFR - Met	Test Outcome	GO/NO-GO decision	Recommendations	Identified Defects (Detected/Closed/Open)	Approvals/SignOff
1	Smart Fashion Recommender Application	Done		Pass	GO	-	Closed	Approved

9.RESULTS

9.1 PERFORMANCE METRICS:

The performance of a recommendation algorithm is evaluated by using some specific metrics that indicate the accuracy of the system. The type of metric used depends on the type of filtering technique. Root Mean Square Error (RMSE), Receiver Operating Characteristics (ROC), Area Under Cover (AUC), Precision, Recall and F1 score is generally used to evaluate the performance or accuracy of the recommendation algorithms.

Root-mean square error (RMSE). RMSE is widely used in evaluating and comparing the performance of a recommendation system model compared to other models. A lower RMSE value indicates higher performance by the recommendation model. RMSE, as mentioned by [61], can be as represented as follows:

$$RMSE = \sqrt{\frac{1}{N_p}\sum_{u,i}(p_{ui} - r_{ui})^2} \quad (1)$$

where, N_p is the total number of predictions, p_{ui} is the predicted rating that a user u will select an item i and r_{ui} is the real rating.

Precision. Precision can be defined as the fraction of correct recommendations or predictions (known as True Positive) to the total number of recommendations provided, which can be as represented as follows:

$$Precision = \frac{True\ Positive\ (TP)}{True\ Positive\ (TP) + False\ Positive\ (FP)} \quad (2)$$

It is also defined as the ratio of the number of relevant recommended items to the number of recommended items expressed as percentages. ***Recall***. Recall can be defined as the fraction of correct recommendations or predictions (known as True Positive) to the total number of correct relevant recommendations provided, which can be as represented as follows:

$$Recall = \frac{True\ Positive\ (TP)}{True\ Positive\ (TP) + False\ Negative\ (FN)} \quad (3)$$

It is also defined as the ratio of the number of relevant recommended items to the total number of relevant items expressed as percentages.

F1 Score. F1 score is an indicator of the accuracy of the model and ranges from 0 to 1, where a value close to 1 represents higher recommendation or prediction accuracy. It represents precision and recall as a single metric and can be as represented as follows:

$$F1\ score = 2 \times \frac{Precision * Recall}{Precision + Recall} \quad (4)$$

Coverage. Coverage is used to measure the percentage of items which are recommended by the algorithm among all of the items.

Accuracy. Accuracy can be defined as the ratio of the number of total correct recommendations to the total recommendations provided, which can be as represented as follows:

$$Accuracy = \frac{TP + FN}{TP + FN + TN + FP} \tag{5}$$

Intersection over union (IoU). It represents the accuracy of an object detector used on a specific dataset [62].

$$IoU = \frac{TP}{TP + FN + FP} \tag{6}$$

ROC. ROC curve is used to conduct a comprehensive assessment of the algorithm's performance [57].

AUC. AUC measures the performance of recommendation and its baselines as well as the quality of the ranking based on pairwise comparisons [5].

Rank aware top-N metrics. The rank aware top-N recommendation metric finds some of the interesting and unknown items that are presumed to be most attractive to a user [63]. Mean reciprocal rank (MRR), mean average precision (MAP) and normalized discounted cumulative gain (NDCG) are three most popular rank aware metrics.

MRR. MRR is calculated as a mean of the reciprocal of the position or rank of first relevant recommendation [64][65]. MRR as mentioned by [64][65] can be expressed as follows:

$$MRR = \frac{1}{N_u} \sum_{u \in N_u} \frac{1}{L_u^n [k] \in R_u} \tag{7}$$

where u, N_u and R_u indicate specific user, total number of users and the set of items rated by the user, respectively. L indicates list of ranking length (n) for user (u) and k represents the position of the item found in the he lists *L.MAP:* MAP is calculated by determining the mean of average precision at the points where relevant products or items are found. MAP as mentioned by [65] can be expressed as follows.

$$MAP = \frac{1}{N_u |R_u|} \sum_{k=1}^{n} \mathbb{1}(L_u^n [k] \in R_u) P_u @k \tag{8}$$

where P_u represents precision in selecting relevant item for the user. NDCG: NDCG is calculated by determining the graded relevance and positional information of the recommended items, which can be expressed as follows [65].

$$NDCG_u = \frac{\sum_{k=1}^{n} G(u, n, k) D(k)}{\sum_{k=1}^{n} G^*(u, n, k) D(k)} \tag{9}$$

where $D(k)$ is a discounting function, $G(u, n, k)$ is the gain obtained recommending an item found at k-th position from the list L and $G^*(u, n, k)$ is the gain related to k-th item in the ideal ranking of n size for u user.

10.ADVANTAGES & DISADVANTAGES

10.1 ADVANTAGES :

- Smart fashion recommender application is the user friendly.
- With the help of chatbot user cand find the products very easily.
- This application used to discover the product based on the user's choice , very easily and quickly.
- It have ability to reduce transaction costs for consumers,and increase revenue for retailers.

10.2 DISADVANTAGES :

- It need active internet connection.
- Privacy concerns.
- Too many choices.
- Cold-start problem.

11 CONCLUSION

The Fashion Recommendation System is mainly used to recommend the best possible outfit combinations to a user who has no fashion sense based on their wardrobe . It may not always provide the best possible outfit to wear for an occasion as the system is dependent completely on the clothes present in the user's wardrobe. Also another reason is that fashion is highly dependent on the time period. However the system does a great job in inculcating a fashion sense among the users and can provide the best recommendations based on the user's wardrobe. Since the system is implemented as a website, it is very easy for the end users to access as well as use. The scope of this system can be expanded by including the ability to detect the various design and patterns on clothing, and to increase the number of occasions.

Recommendation systems have the potential to explore new opportunities for retailers by enabling them to provide customized recommendations to consumers based on information retrieved from the Internet. They help consumers to instantly find the products and services that closely match with their choices.

12 FUTURE SCOPE

In the future, to implement this recommendation system to be extended to include male and non-binary fashion items including apparel, footwear, accessories etc. This work can further be enhanced to predict fashion items based on the skin colour and weather conditions.

Future research should concentrate on including time series analysis and accuratecategorization of product images based on the variation in colour, trend and clothing style in order to develop an effective recommendation system. The proposed model will follow brand specific personalization campaigns and hence it will ensure highly curated and tailored. offerings for users. Hence, this research will be highly beneficial for researchers interested in using augmented and virtual reality features to develop recommendation systems.

For different markets, it could split in short-term and long-term recommendations in the future research. Current discussions and reviews are all based on short-term recommendations toward apparel retailing markets. It delivers real-time recommendations straight to the online shoppers as shopping advice and suggestions. Apart from online shopping, recommendations could also be utilized in design and manufacture by providing long term recommendations, such as predicting new trends through years and seasons.

GitHub Repository Link :

https://github.com/IBM-EPBL/IBM-Project-8882-1658935848

Project Demo Link:

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THANKING YOU