Project Report Format

Date	18 November 2022
Team ID	PNT2022TMID49541
Project name	Smart fashion recommendation system

1.Introduction

1.1 project overview

The main aim of the project is to recommend the most appropriate clothes for a given occasion based on proposed system shows that it can process the user's clothes for the images. Identify the type and color of the outfit and finally recommend the most suitable outfit for the given occasion based ok the users existing clothes.

1.2 purpose

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.

2. Literature survey

2.1 Existing problem

Abstract: 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, and efficiently convey relevant product content or information to users. Image-based fashion recommendation systems (FRSs) have attracted a huge amount of attention from fast fashion retailers as they provide a personalized shopping experience to consumers. With the technological advancements, this branch of artificial intelligence exhibits a tremendous amount of potential in image processing, parsing, classification, and segmentation. Despite its huge potential, the number of academic articles on this topic is limited. The available studies do not provide a rigorous review of fashion recommendation systems and the corresponding filtering techniques. To the best of the authors' knowledge, this is the first scholarly article to review the state-of-the-art fashion recommendation systems and the corresponding filtering techniques. In addition, this review also explores various potential models that could be implemented to develop fashion recommendation systems in the future. This paper will help researchers, academics, and practitioners who are interested in machine learning, computer vision, and fashion retailing to understand the characteristics of the different fashion

recommendation systems. Keywords: fashion recommendation system; e-commerce; filtering techniques; algorithmic models; performance.

1. Introduction

Clothing is a kind of symbol that represents people's internal perceptions through their outer appearance. It conveys information about their choices, faith, personality, profession, social status, and attitude towards life. Therefore, clothing is believed to be a nonverbal way of communicating and a major part of people's outer appearance [1]. Recent technological advancements have enabled consumers to track current fashion trends around the globe, which influence their choices [2,3]. The fashion choices of consumers depend on many factors, such as demographics, geographic location, individual preferences, interpersonal influences, age, gender, season, and culture [4–8]. Moreover, previous fashion recommendation research shows that fashion preferences vary not only from country to country but also from city to city [9]. The combination of fashion preferences and the abovementioned factors associated with clothing choices could transmit the image features for a better understanding of consumers' preferences [7]. Therefore, analyzing consumers' choices and recommendations is valuable to fashion designers and retailers [9–11]. Additionally, consumers' clothing choices and product preference data have become available on the Internet Informatics 2021, 8, 49. https://doi.org/10.3390/informatics8030049 https://www.mdpi.com/journal/informatics Informatics 2021, 8, 49 2 of 34 in the form of text or opinions and images or pictures. Since these images contain information about people from all around the world, both online and offline fashion retailers are using these platforms to reach billions of users who are active on the Internet [10,12,13]. Therefore, e-commerce has become the predominant channel for shopping in recent years. The ability of recommendation systems to provide personalized recommendations and respond quickly to the consumer's choices has contributed significantly to the expansion of e-commerce sales [14]. According to different studies, e-commerce retailers, such as Amazon, eBay, and Shopstyle, and social networking sites, such as Pinterest, Snapchat, Instagram, Facebook, Chictopia, and Lookbook, are now regarded as the most popular media for fashion advice and recommendations [15–22]. Research on textual content, such as posts and comments [23], emotion and information diffusion [24], and images has attracted the attention of modernday researchers, as it can help to predict fashion trends and facilitate the development of effective recommendation systems [5,25–27]. An effective recommendation system is a crucial tool for successfully conducting an e-commerce business. Fashion recommendation systems (FRSs) generally provide specific recommendations to the consumer based on their browsing and previous purchase history. Social-network-based FRSs consider the user's social circle, fashion product attributes, image parsing, fashion trends, and consistency in fashion styles as important factors since they impact upon the user's purchasing decisions [28–38]. FRSs have the ability to reduce transaction costs for consumers and increase revenue for retailers. With the exception of a single study from 2016 that focuses only on apparel recommendation systems [10], no current research presents recent advances in research on fashion recommendation systems. Therefore, the purpose of this paper is to

present an integrative review of the research related to fashion recommendation systems. Moreover, Guan et al. cited research published until 2015. Therefore, the first objective of this paper is to review the most recent research published on this topic from 2010 to 2020. The previous study did not provide an in-depth analysis of the computational methods or algorithms corresponding to the fashion recommendation systems. This review study aims to fulfill this research gap and rigorously study the principles underlying, the methods used by, and the performance of the state-of-the-art fashion recommendation systems. To the best of our knowledge, this in-depth study is first of its kind. It includes research articles related to image parsing, clothing and body shape identification, and fashion attribute recognition, which are critical parts of fashion recommendation systems (FRSs). This review paper also provides a guideline for a research methodology to be used by future researchers in this field. The first section of this review discusses the history and background of FRSs. The second section presents a concise history and overview of recommendation systems. The third section aims to integrate the scholarly articles related to FRSs published in the last decade. The fourth section defines the metrics that are used by researchers to present and discuss recommendation results. The fifth section forms the major part of this review and focuses on various FRSs followed by different computational algorithmic models and recommendation filtering techniques used in fashion recommendation research. It will

2.2 References

1. Barnard, M. Fashion as Communication, 2nd ed.; Routledge: London, UK, 200835

2. Polania, L.F.; Gupte, S. Learning Fashion Compatibility Across Apparel Categories for Outfit Recommendation. In Proceedings of the 2019 IEEE International Conference on Image Processing (ICIP), Taipei, Taiwan, 22–25 September 2019; pp. 4489–4493.

3. Sun, G.-L.; Cheng, Z.-Q.; Wu, X.; Peng, Q. Personalized clothing recommendation combining user social circle and fashion style consistency. Multimed. Tools Appl. 2017, 77, 17731–17754.

4. Qian, X.; Feng, H.; Zhao, G.; Mei, T. Personalized recommendation combining user interest and social circle. IEEE Trans. Knowl.Data Eng. 2014, 26, 1763–1777. [CrossRef]

5. Wu, Q.; Zhao, P.; Cui, Z. Visual and Textual Jointly Enhanced Interpretable Fashion Recommendation. IEEE Access 2020, 8,68736–68746. [CrossRef]

6. Wu, S.; Ren, W.; Yu, C.; Chen, G.; Zhang, D.; Zhu, J. Personal recommendation using deep recurrent neural networks in NetEase.In Proceedings of the 2016 IEEE 32nd International Conference on Data Engineering (ICDE), Helsinki, Finland, 16–20 May 2016;pp. 1218–1229. [CrossRef]

7. Jaradat, S.; Dokoohaki, N.; Hammar, K.;Wara, U.; Matskin, M. Dynamic CNN Models for Fashion Recommendation in Instagram. In Proceedings of the 2018 IEEE Intl Conf on Parallel & Distributed Processing with Applications, Ubiquitous Computing &Communications, Big Data & Cloud Computing, Social Computing & Networking, Sustainable Computing & Communications (ISPA/IUCC/BDCloud/SocialCom/SustainCom), Melbourne, VIC, Australia, 11–13 December 2018; pp. 1144–1151. [CrossRef]

8. Ono, C.; Kurokawa, M.; Motomura, Y.; Asoh, H. A context-aware movie preference model using a bayesian network for recommendation and promotion. In User Modeling 2007; Conati, C., McCoy, K., Paliouras, G., Eds.; Springer: Berlin/Heidelberg, Germany, 2007; Volume 4511, pp. 247–257. [CrossRef]

9. Raffiee, A.H.; Sollami, M. GarmentGAN: Photo-realistic adversarial fashion transfer. arXiv 2020, arXiv:2003.01894.

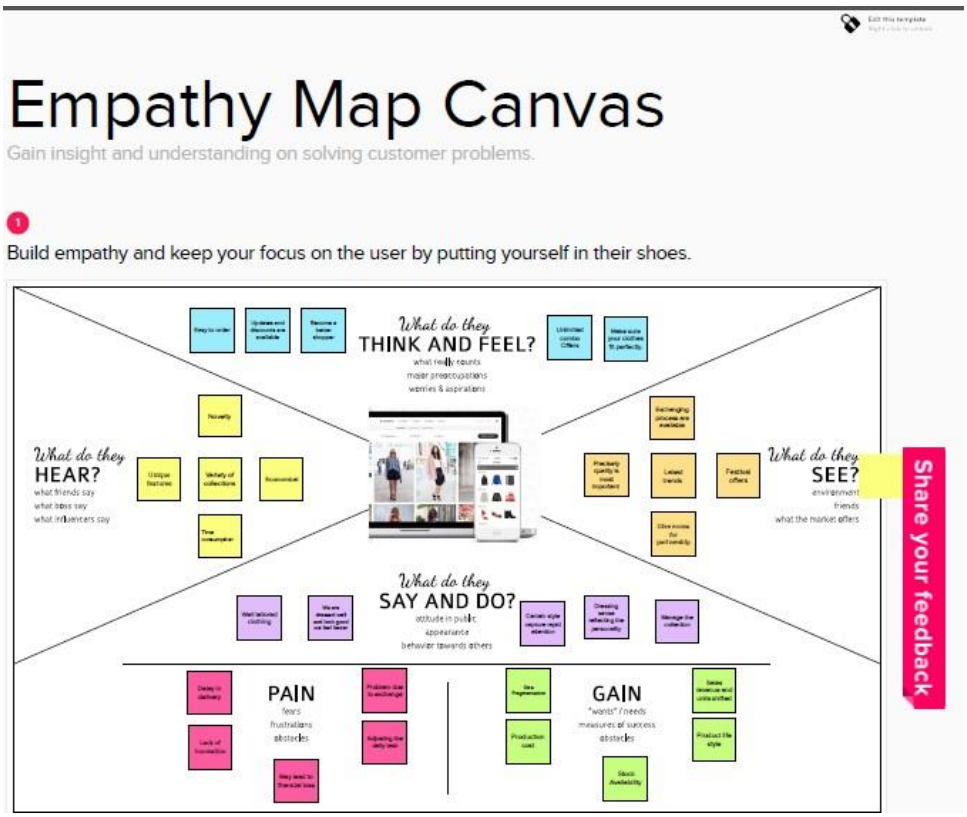
10. Viriato de Melo, E.; Nogueira, E.A.; Guliato, D. Content-Based Filtering Enhanced by Human Visual Attention Applied to Clothing Recommendation. In Proceedings of the 2015 IEEE 27th International Conference on Tools with Artificial Intelligence (ICTAI), Vietri sul Mare, Italy, 9–11 November 2015; pp.
644–651. [CrossRef]

2.3 problem statement definition

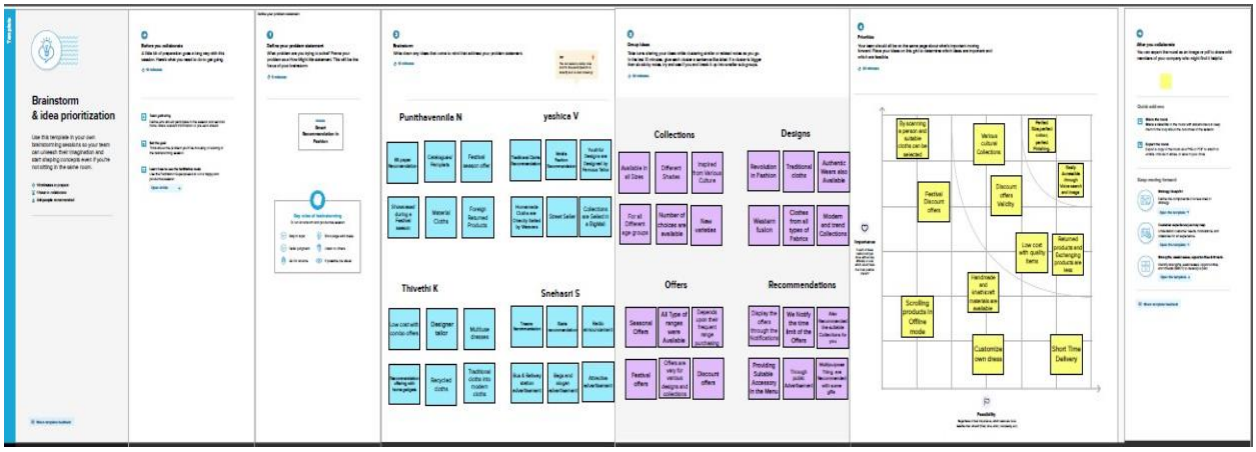
The problem statement should address not only what the problem is, but why it's a problem and why it's important to solve it. Here We are trying to forecast the products to each customer .but due to colour and size variation the exchanging of products are increased . This cause major defects in online shopping.

3. Ideation and proposed solution

3.1 Empathy map



3.2 Ideation and brainstroming



3.3 proposed solution

Project Design Phase-I
Proposed Solution Template

Date	24 September 2022
Team ID	PNT2022TMID49541
Project Name	Project - Smart Fashion Recommender Application
Maximum Marks	2 Marks

Proposed Solution Template:

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

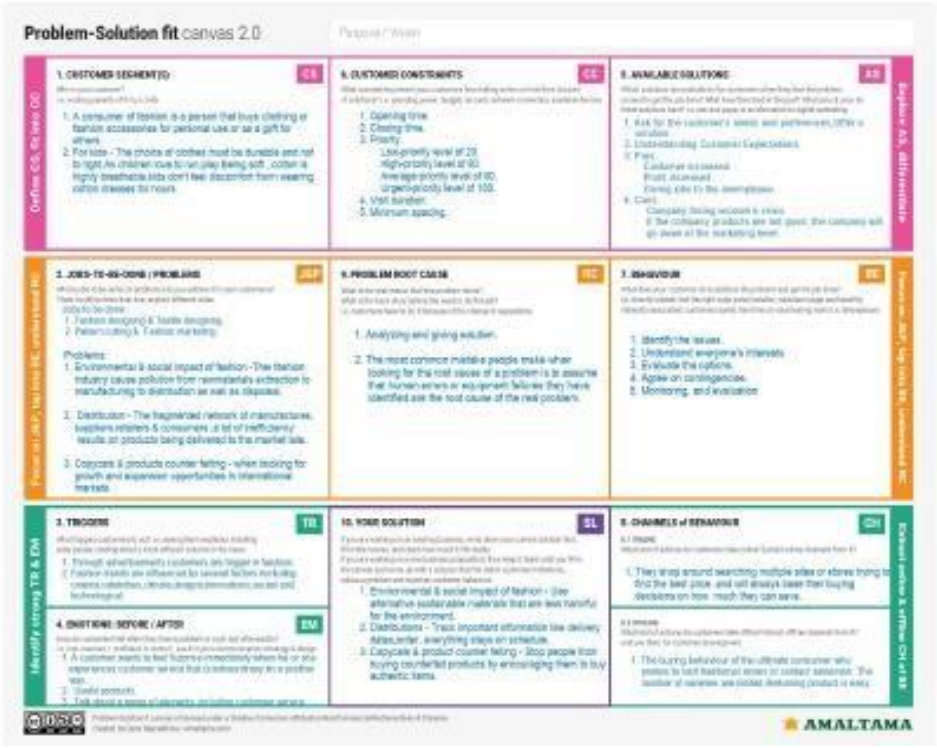
S. No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	We are trying to forecast the products to each customer. But due to colour & size variation the exchanging of products are increased. This cause major defects in online shopping.
2.	Idea / Solution description	Idea: starts with people recommendation, The ordered products are perfectly delivered to the customers as soon as possible.
3.	Novelty / Uniqueness	Novelty : listen to customers wish list, smart budget, products are delivered as soon as possible, All people's can access.
4.	Social Impact / Customer Satisfaction	People's gets better prices and more varieties, Online shopping can save time for both the buyer and retailer, reducing phone calls about availability.
5.	Business Model (Revenue Model)	In-app Advertising. In-App Purchases. Data Monetization. Affiliate Marketing and Lead Generation. SMS and Email Marketing. Sponsorships. Paid Apps.
6.	Scalability of the Solution	Fill in a Market Gap. Perfect our Signature Product. Offer Exclusive Items in Limited Quantities. Further Distinguish our Brand With Easy Returns. Based on business profit and loss

3.4 problem solution fit

Project Design Phase - 1
Problem - Solution Fit Template

Date	04 October 2022
Team ID	PNT2022TMID49541
Project Name	Smart Fashion Recommender Application
Maximum Marks	2 Marks

Example - Solution ArchitectureDiagram:



4 Requirement analysis

4.4 functional Requirements

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	How memorable and intuitive the design is How easily a user can achieve their goal in a single page visit.
NFR-2	Security	Only the system data administrator can assign roles and change access permissions to the system. Taking the first step to ecommerce fraud prevention.
NFR-3	Reliability	It provides conscious consume with buying advice and shopping suggestions to make better choice when purchasing fashion items.
NFR-4	Performance	The website homepage should load in less than 4 seconds on display. setup the speed bence mark.
NFR-5	Availability	Fashion are available in market trends include forecasting services ,trade magazines, newspapers, advertising material and fashion magazines.
NFR-6	Scalability	Our main goal for the next two years is internationalization so the website shall have multiple storeviews for each country we are selling to.

4.5 Non functional requirements

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	How memorable and intuitive the design is How easily a user can achieve their goal in a single page visit.
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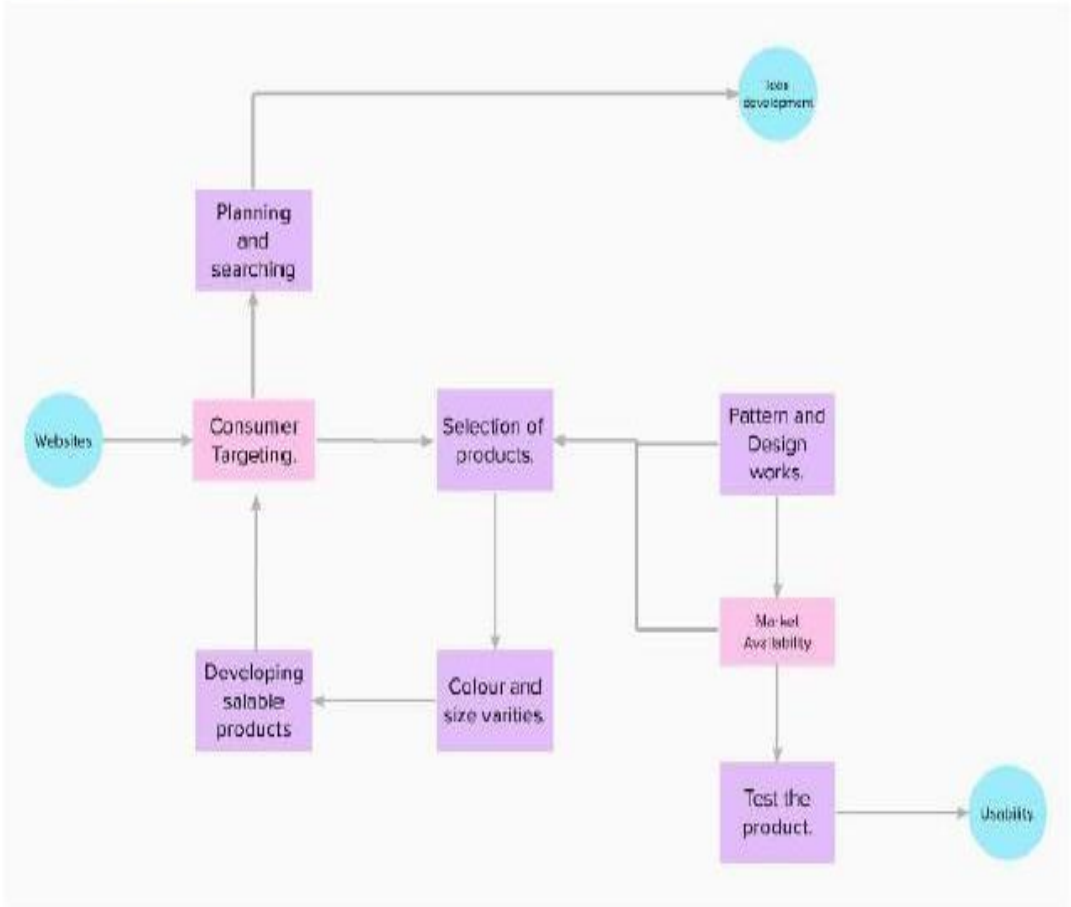
5 **project design**

5.4 dataflow diagrams

Data Flow Diagram:

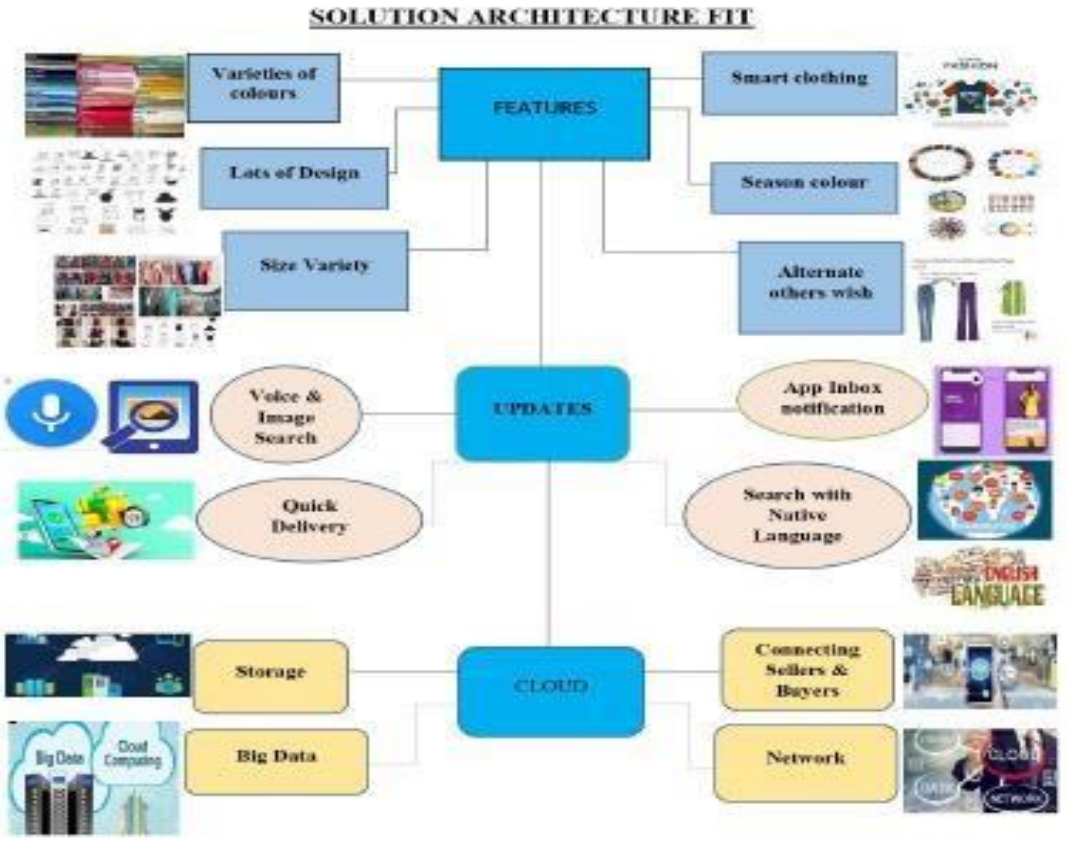


5.5 solution and technical architecture

Project Design Phase - 1
Solution Architecture

Date	04 October 2022
Team ID	PNT2022TMID49541
Project Name	Smart Fashion Recommender Application
Maximum Marks	4 Marks

Example - Solution ArchitectureDiagram:



5.6 user stories

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 social media.	I can register & access the dashboard with social media.	Low	Sprint-2
		USN-4	As a user, I can register for the application through Gmail	I can register through Gmail	Medium	Sprint-1
	Login	USN-5	As a user, I can log into the application by entering email & password	I can successfully login into app.	High	Sprint-1
	Dashboard	USN-6	As a user I can access the dashboard.	I can refer dashboard for my clarification	Medium	Sprint-1
Customer (Web user)	Customer services	USN-7	As a user I can contact to the customer care department on 1800 xxxx xxxx.	I can defund related query	Medium	Sprint-1
Customer Care Executive	Feedback, comment section	USN-8	As a user I can write a fashion review as both positive and negative.	I can choose the platform to write my content.	Low	Sprint-2

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Administrator	Supervising	USN-9	As a user I can apply the fashion apparel application.	I can ensure that privileges and permission in account.	High	Sprint-1
Customer behaviour	Fashion sector	USN-10	As a user I can behave differs according to the type of need.	I can buy some thing based on how useful and functional it is.	High	Sprint-1
Types of customer	Classic rules and dresscodes	USN-11	As a user I can uses a mix of classic and innovative they are more upto date	I can more connected with the latest trends and technology	Medium	Sprint-1
Attributes valued by consumer	Quality, design, price	USN-12	As a user I can evoluate attributes throughout their buying process.	I have a good fabrics and good design and choose which brands are they able to buy.	High	Sprint-1

6 project planning & scheduling

6.4 sprint planning & estimation

6.5 sprint delivery schedule

Project Planning Phase

Project Planning Template (Product Backlog, Sprint Planning, Stories, Story points)

Date	21 October 2022
Team ID	PNT2022TMID49541
Project Name	Project- Smart fashion Recommendation system
Maximum Marks	8 Marks

Product Backlog, Sprint Schedule, and Estimation (4 Marks)

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-1	Registration	USN-1	As a user, I can register for the application by entering my email, password, and confirming my password	2	High	Punithavennila.N, Thivethi K
Sprint-1	Verification	USN-2	As a user I will receive confirmation email once I have registered for the application.	2	High	Yashica V, Snehasri. S
Sprint-1	Login process	USN-3	As a user I can login into the application by entering email &password.	2	Medium	Punithavennila.N, Yashica. V
Sprint -2	Customer services	USN-4	As a user I can contact to the customer care department on 1800 xxxx xxxx	2	High	Snehasri.S, Thivethi. K
Sprint-3	Feedback, comment section.	USN-5	As a user I can write a fashion review as both positive and negative.	2	High	Punithavennila.N, Snehasri.S
Sprint-4	Fashion sector	USN-6	As a user I can behave differently according to the type of need.	2	High	Yashica.V, Thivethi. K

Project Tracker, Velocity & Burndown Chart: (4 Marks)

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	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

6.6 Reports from jira

7 . coding and solutioning

7.1 feature 1

1. **Convenience to Shoppers**

Users can easily shop from the convenience of their homes without even having to step out. They can simply download an app, make their account, and start using it directly from the first day itself.

2. **Offers & Discounts**

Users are intimated well in advance about any offers or discounts that they will run in the coming time. This will help them save their time, effort, and price that they might have spent on commuting to the store, looking for a product, and purchasing it at the same cost.

3. **Useful Filters**

Customers do not have to browse a lot through all categories but jump directly to the category they want to see through the filters provided on the app. This helps them save a lot of time shopping.

7.2 features 2

1. No Competition

Since only your brand products are going to be displayed on the app, the users are likely to be less distracted and shop only what they see. This will help you increase sales and get direct and loyal customers. Also, this doesn't give them a chance to look at similar products on the platform.

2. Audience Feedback

The brands that have their presence in the app world are always open to opinions and feedback, as it helps them serve their customers better. A support team is always there to assist the customers and help them make purchasing an easy task.

3. Product Details and Care Guide

Each product is different and the details of each one of them vary according to the material used in making and the stitching, etc. Therefore, each item that is displayed on the app should carry ample information about the product making it easier for the buyers to understand the product better. This will help the users be clear about the product they are buying and special instructions for taking care of it if required.

7.3 database schema

Some basic requirements for the shop, which I'm trying to make a schema of:

The shop has an inventory of products. Each product has a price, but this price should vary depending on sales. Customers can make orders for multiple products at a time, and should be able to see their order history. When the order has been completed, there should be a track and trace number.

8. Testing

8.1 Testcases

			Date	18-Nov-22								
			Team ID	PNT2022TMID49541								
			Project Name	Project -Smart Fashion Recommendation Syste								
			Maximum Marks	4 marks								
Feature Type	**Component**	**Test Scenario**	**Pre-Requisite**	**Steps To Execute**	**Test Data**	**Expected Result**	**Actual Result**	**Status**	**Commnets**	**TC for Automation(Y/N)**	**BUG ID**	**Executed By**
Functional	Home Page	Product Page Test Case	Product Attributes.	Enable Self -Services.	https://shopenzer.com/	Login/Signup popup should display	Working as expected	Pass	The user should be be able to navigate to all the pages in the website.			
UI	Home Page	Search Functionality Test Cases	Order and Checkout Flow.	Personalize Requirements.	https://shopenzer.com/	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	Search results should be displayed with the most relevant item being shown first.		BUG-1234	
Functional	Home page	Shopping Smart Card Test Cases	Social Sharing.	Provide more information.	Username: chalam@gmail.com password: Testing123	User should navigate to user account homepage	Working as expected	Pass	Test that all added items have at least a quantity, price, and delete option associated with it.			
Functional	Login page	Payment Gateway Test Cases	Mobile-Friendlines.	Make your Website mobile-friendly.	Username: chalam@gmail password: Testing123	Application should show 'Incorrect email or password ' validation message.	Working as expected	Pass	Perform security testing if in case the user's credit card details need			
Functional	Login page	Enter Mail ID,Enter User Name,Enter Password,Enter Wrong Password,Enter correct Password	Security and Performance.	Use Customer data.	Username: chalam@gmail.com password: Testing1236786867868768	Application should show 'Incorrect email or password ' validation message.	Working as expected	Pass	Verify that all the links and banners work properly.			
Functional	Login page	Check that the app does not log out the user before the end of a session	Third-Party Integration.	Use a cross-selling Strategy.	Username: chalam password: Testing12367868678876	Make it Reusable.	Working as expected	pass	They include comment threading, email notifications, a separate profile for each commenter, reputation and voting system.			

8.2 user acceptance

Acceptance Testing
UAT Execution & Report Submission

Date	18 November 2022
Team ID	PNT2022TMID49541
Project Name	Project – smart fashion recommendation systems
Maximum Marks	4 Marks

1. Purpose of Document

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

2. 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	11	2	3	2	18
Duplicate	1	0	4	0	5
External	4	2	0	2	8
Fixed	10	3	2	9	24
Not Reproduced	0	0	2	0	2
Skipped	0	0	2	1	3
Won't Fix	0	4	1	1	6
Totals	26	11	14	15	66

3. Test Case Analysis

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

Section	Total Cases	Not Tested	Fail	Pass
Print Engine	6	0	0	6
Client Application	41	0	0	41
Security	4	0	0	4
Outsource Shipping	5	0	0	5
Exception Reporting	6	0	0	6
Final Report Output	3	0	0	3
Version Control	2	0	0	2

9. Results

9.1 performance testing

Project Development Phase

Date	18 November 2022
Team ID	PNT2022 TMID49541
Project Name	Project – Smart Fashion Recommendation Application
Maximum Marks	10 Marks

			NFT - Risk Assessment						
S. No	Project Name	Scope\ feature	Functional Changes	Hardware Changes	Software Changes	Impact of Downtime	Load/ Volume Changes	Risk Score	Justi-fication
1	Smart fashion recommen-dation application	New	Moderate	No Changes	Moderate	low	>5 to 10%	ORANGE	we have improve the scalability, stability and speed of the system.

10. Advantages and disadvantage

Advantages

1. People can purchase their products from the comfort of their sofas.
2. Product images on the product detail page should have the option to zoom in.
3. Shows the following order statuses such as confirmed, processing ,shipping, returned .
4. They should receive extra warranty and festival offers and gifts on the purchased order.
5. Our product should share on social medias.

Disadvantages

1. Decreases face to face communication skills.
2. Facilities Laziness.
3. Trend following is lagging.
4. Insufficient supply chain and distribution process.
5. Privacy concerns and security risk in relation to data and fraud.

11. Conclusion

In this project we create a images and containerized the images .The trend of fashion is constantly changing. Though we like wearing clothes as per the latest fashion ,but before blindly following any trend we should make sure that the particular style suits us.

12.future code

Sustainability and digitization are the two major categories that will determine and change fashion trends in the future. No brand or retailer will be able to avoid them. Sustainability and digitization are anything but opposites. In fact, many sustainable developments can only be implemented through digital processes.

13. Appendix

Source code

1. Functional Requirements: Registration.

User story: USN-1.

Solution:

<html>

```
<head>
<title>
Example of required attribute with input element
</title>
<style> div
{
padding: 10px 0;
}
</style>
<head>
<body>
<form>
<div>
<label>Name</label>
<input type="text" placeholder="Enter Name" name="name" required>
</div>
<div>
<label> E-mail </label>
<input type="email" placeholder="Enter email ID" name="email" required>
</div>
<div>
<label> Mobile No. </label>
<input type="text" placeholder="Enter Your Mobile No." name="mobileno"
required> </div>
<div>
```

<label>Password</label>

<input type="password" placeholder="Enter Password" name="psw" required>

<button type="submit" VALUE="SUBMIT"> SUBMIT </button>

</form>

</body>

</html>

2. Functional Requirements: Verification.

User story: USN-2.

Solution:

<!DOCTYPE html>

<!-- Coding by CodingLab | www.codinglabweb.com-->

<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> Responsive Login and Signup Form </title>--

<!-- CSS -->

<link rel="stylesheet" href="css/style.css"

<!-- Boxicons CSS -->

<link href='https://unpkg.com/boxicons@2.1.2/css/boxicons.min.css'
rel='stylesheet'

</head>

```
<body>
<section class="container forms">
<div class="form login">
<div class="form-content">
<header>Login</header>
<form action="#">
<div class="field input-field">
<input type="email" placeholder="Email" class="input">
</div>
<div class="field input-field">
<input type="password" placeholder="Password" class="password">
<i class='bx bx-hide eye-icon'></i>
</div>
<div class="form-link">
<a href="#" class="forgot-pass">Forgot password?</a>
</div>
<div class="field button-field">
<button>Login</button>
</div>
</form> <div class="form-link">
<span>Don't have an account? <a href="#" class="link
signuplink">Signup</a></span>
</div>
</div>
<div class="line"></div>
```

```
<div class="media-options">
<a href="#" class="field facebook">
<i class='bx bxl-facebook facebook-icon'></i>
<span>Login with Facebook</span>
</a>
</div>
<div class="media-options">
<a href="#" class="field google">
<img src="#" alt="" class="google-img">
<span>Login with Google</span>
</a>
</div> </div>
<!-- Signup Form -->
<div class="form signup">
<div class="form-content">
<header>Signup</header>
<form action="#">
<div class="field input-field">
<input type="email" placeholder="Email" class="input">
</div>
<div class="field input-field">
<input type="password" placeholder="Create password" class="password">
</div>
<div class="field input-field">
```

```
<input type="password" placeholder="Confirm password" class="password">
<i class='bx bx-hide eye-icon'></i>
</div>
<div class="field button-field"> <button>Signup</button>
</div>
</form>
<div class="form-link">
<span>Already have an account? <a href="#" class="link
loginlink">Login</a></span>
</div>
</div>
<div class="line"></div>
<div class="media-options">
<a href="#" class="field facebook">
<i class='bx bxl-facebook facebook-icon'></i>
<span>Login with Facebook</span>
</a>
</div>
<div class="media-options">
<a href="#" class="field google">
<img src="#" alt="" class="google-img"> <span>Login with Google</span>
</a>
</div>
</div>
</section>
```

```
<!-- JavaScript -->
<!--<script src="js/script.js"></script>-->
</body>
</html> 3. Functional Requirements: login Process.
User story: USN-3.
Solution:
<!DOCTYPE html>
<!-- Coding by CodingLab | www.codinglabweb.com-->
<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>Email and Password Validation</title>-->
<!-- CSS -->
<link rel="stylesheet" href="css/style.css" />
<!-- Boxicons CSS -->
<link
href="https://unpkg.com/boxicons@2.1.2/css/boxicons.min.css" rel="stylesheet"
/> 3. Functional Requirements: login Process.
User story: USN-3.
Solution:
<!DOCTYPE html>
<!-- Coding by CodingLab | www.codinglabweb.com-->
```

```
<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>Email and Password Validation</title>-->
<!-- CSS -->
<link rel="stylesheet" href="css/style.css" />
<!-- Boxicons CSS -->
<link
href="https://unpkg.com/boxicons@2.1.2/css/boxicons.min.css" rel="stylesheet"
/> </head>
<body>
<div class="container">
<header>Signup</header>
<form action="https://www.codinglabweb.com/">
<div class="field email-field">
<div class="input-field">
<input type="email" placeholder="Enter your email" class="email" />
</div>
<span class="error email-error">
<i class="bx bx-error-circle error-icon"></i>
<p class="error-text">Please enter a valid email</p>
</span>
```

```
</div>
<div class="field create-password">
<div class="input-field">
<input
type="password" placeholder="Create password" class="password"
/>
<i class="bx bx-hide show-hide"></i>
</div>
<span class="error password-error">
<i class="bx bx-error-circle error-icon"></i>
<p class="error-text">
Please enter atleast 8 charatcer with number, symbol, small and capital
letter.
</p>
</span>
</div>
<div class="field confirm-password">
<div class="input-field">
<input type="password"
placeholder="Confirm password" class="cPassword"
/>
<i class="bx bx-hide show-hide"></i>
</div>
<span class="error cPassword-error">
```

```
<i class="bx bx-error-circle error-icon"></i>
<p class="error-text">Password don't match</p>
</span>
</div>
<div class="input-field button">
<input type="submit" value="Submit Now" />
</div>
</form>
</div>
<!-- JavaScript -->
<!--<script src="js/script.js"></script>-->
</body>
</html>
```

1. Functional Requirements: Customer Services

User Story Number: USN-4 Program:

```
<div class="container">
<form action="action_page.php">
<label for="fname">First Name</label>
<input type="text" id="fname" name="firstname" placeholder="Your name..">
<label for="lname">Last Name</label>
<input type="text" id="lname" name="lastname" placeholder="Your last name..">
<label for="country">Country</label>
<select id="country" name="country">
<option value="australia">Australia</option>
```

<option value="canada">Canada</option>

<option value="usa">USA</option>

</select>

<label for="subject">Subject</label>

<textarea id="subject" name="subject" placeholder="Write something.." style="height:200px"></textarea>

<input type="submit" value="Submit">

</form>

1. Functional Requirements: Feedback and Comment Section.

User Story Number: USN-5.

Feedback Program:

<!DOCTYPE html>

<html>

<head>

<meta name="viewport" content="width=device-width, initial-scale=1">

<style>

* {

box-sizing: border-box;

}

input[type=text], select, textarea {

width: 100%; padding: 12px;

border: 1px solid rgb(70, 68, 68);

border-radius: 4px; resize:

vertical;

```
}
input[type=email], select, textarea { width:
100%;
padding: 12px; border: 1px solid
rgb(70, 68, 68); border-radius:
4px; resize: vertical;
}
label { padding: 12px 12px
12px 0; display: inline-
block;
}
input[type=submit] { background-
color: rgb(37, 116, 161); color:
white; padding: 12px 20px; border:
none; border-radius: 4px; cursor:
pointer; float: right;
}
input[type=submit]:hover { background-color:
#45a049;
}
.container { border-radius:
5px; background-color:
#f2f2f2; padding: 20px;
}
```

```
.col-25 { float:
left;
width: 25%; margin-top:
6px;
}
.col-75 { float:
left;
width: 75%; margin-top:
6px;
}
/* Clear floats after the columns */
.row:after    {
content:    "";
display: table;
clear: both;
}
/* Responsive layout - when the screen is less than 600px wide, make the two
columns stack on top of each other instead of next to each other */
</style>
</head>
<body>
<h2>FEED BACK FORM</h2>
<div class="container">
<form>
```

```
<div class="row">
<div class="col-25">
<label for="fname">First Name</label>
</div>
<div class="col-75">
<input type="text" id="fname" name="firstname" placeholder="Your name..">
</div>
</div>
<div class="row">
<div class="col-25">
<label for="lname">Last Name</label>
</div>
<div class="col-75">
<input type="text" id="lname" name="lastname" placeholder="Your last name..">
</div> </div>
<div class="row">
<div class="col-25">
<label for="email">Mail Id</label>
</div>
<div class="col-75">
<input type="email" id="email" name="mailid" placeholder="Your mail id..">
</div>
</div>
<div class="row">
```

```
<div class="col-25">
<label for="country">Country</label>
</div>
<div class="col-75">
<select id="country" name="country">
<option value="none">Select Country</option>
<option value="australia">Australia</option>
<option value="canada">Canada</option>
<option value="usa">USA</option>
<option value="russia">Russia</option>
<option value="japan">Japan</option>
<option value="india">India</option>
<option value="china">China</option>
</select>
</div>
</div>
<div class="row">
<div class="col-25">
<label for="feed_back">Feed Back</label>
</div>
<div class="col-75">
<textarea id="subject" name="subject" placeholder="Write something.."
style="height:200px"></textarea>
</div>
</div>
```

```
<div class="row">
<input type="submit" value="Submit">
</div>
</form>
</div>
</body>
</html>
```

Comment Section Program:

```
<form action="/html/tags/html_form_tag_action.cfm" method="post">
<div> COMMENT ABOUT OUR PRODUCT
</div>
<div>
<textarea name="comments" id="comments" style="font-family:sans-serif;fontsize:1.2em;">
Hey... say something!
</textarea>
</div>
<input type="submit" value="Submit">
</form>
```

2.Functional Requirements: Fashion Sector.

User Story Number: USN-6.

Fashion Sector Program:

```
<header>
<div class="logo"><a href="#">ShoPperZ</a></div>
<div class="search">
```

```
<a href=""><input type="text" placeholder="search products" id="input">
<ion-icon class="s" name="search"></ion-icon>
</a>
</div>
<div class="heading">
<ul>
<li><a href="#" class="under">HOME</a></li>
<li><a href="#" class="under">COLOUR</a></li>
<li><a href="#" class="under">SIZE</a></li>
<li><a href="#" class="under">GENDER</a></li>
<li><a href="#" class="under">NEW COLLECTIONS</a></li>
</ul>
</div>
</header>
```

2.Functional Requirements: Fashion Sector.

User Story Number: USN-6.

Fashion Sector Program:

```
<header>
<div class="logo"><a href="#">ShoPperZ</a></div>
<div class="search">
<a href=""><input type="text" placeholder="search products" id="input">
<ion-icon class="s" name="search"></ion-icon>
</a>
</div>
```

```
<div class="heading">
<ul>
<li><a href="#" class="under">HOME</a></li>
<li><a href="#" class="under">COLOUR</a></li>
<li><a href="#" class="under">SIZE</a></li>
<li><a href="#" class="under">GENDER</a></li>
<li><a href="#" class="under">NEW COLLECTIONS</a></li>
</ul>
</div> </header>
```

Github link https://github.com/IBM-EPBL/IBM-Project-20762-1659762173

Project demo link

https://drive.google.com/file/d/1VzRSqiZoBA9JCkOIZaxktgzEcdLnGW4c/view?usp=share_link