SMART FASHION RECOMMENDER APPLICATION

PROJECT REPORT

Submitted by

KARTHIK V	**LEADER**
KARUN S	**MEMBER 1**
PRADEEP S	**MEMBER 2**
SIVABALAN V	**MEMBER 3**

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Mahendhirapuri,Mallasamudram

Namakkal- 637503

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ABSTRACT

Fashion is perceived as a meaningful way of self-expressing that people use for different purposes 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 invest in fashion-related sectors, it also faces different challenges in answereing their customer needs. Fashion recommender systems have been introduced to address these needs.

In recent years, the huge amount of information and users of the internet service, it is hard to know quickly and accurately what the user wants. This phenomenon leads to an extremely low utilization of information, also known as the information overload problem. Traditionally, keywords are used to retrieve images, but such methods require a lot of annotations on the image data, which will lead to serious problems such as inconsistent, inaccurate, and incomplete descriptions, and a huge amount of work.

The fashion industry is rapidly expanding and playing a critical role in driving global economies. Due to this ever-growing industry, application of computer science is rising rapidly to solve different problems in this industry. Many e-commerce sites around the world allow their customers to purchase clothing items over the internet predominantly using recommender systems for shoppers based on the customer's purchase history, similar buying patterns of other shoppers, items in the wish lists and latest trends.

The rapid progress of computer vision, cloud computing and artificial intelligence combined with the current growing urge for online shopping systems opened an excellent opportunity for the fashion industry. As a result, many studies worldwide are dedicated to modern fashion related applications such as virtual try-on and fashion synthesis. However, the accelerated evolution speed of the field makes it hard to track these many research branches in a structured framework. Such hierarchical application-based multi-label classification of studies increases the visibility of current research, promotes the field, provides research directions, and facilitates access to related studies.

LIST OF FIGURES

LIST OF ABBREVIATIONS

ACRONYM	ABBREVIATION
CBIR	Content Based Information Retrieval
LUM	Lazy User Model
RMSE	Root Mean Square Error
ROC	Receiver Operating Characteristics
AUC	Area Under Cover
IOU	Intersection over union
TP	True Positive
FP	False Positive
MRR	Mean reciprocal rank
MAP	Mean Average Precision
NDCG	Normalized Discounted Cumulative Gain

TABLE OF CONTENTS

GitHub & Project Demo Link

1. INTRODUCTION

During the last few years, online shopping has been growing. In 2013, the total turnover for e-commerce in Europe expanded by 17% in contrast to the 12 months before and huge organizations can have hundreds and hundreds of products or even more from which we can select on websites. Both the customer and the business enterprise desire the client to easily discover applicable products or items both throughout the search and when they are searching, and this is where recommender systems come into the picture. The greater part (62%) of US buyers with Web access presently shop online, to some degree, at least a month, and 1% say they do not buy from the internet, as indicated by a current report by Walker Sands. Of all the clients looking for items on the web, 63% of them buy garments (Burke, 2002), these being, quite possibly, the most purchased items.

The information uncover that women are more likely to buy online, with 71% of ladies doing this, contrasted with 52% of men (Reshma & Patil, 2012). Studies on clothing are in a growing development in general as a result of the tremendous market related to dress. In China, the serviceable market crushed 20 billion US dollars in 2016 (Jannah & Friedrich, 2013). Such huge market prospects impressively energize clothing applicable exploration. Being one of the new studies in progress both at the national and international level, recommender systems have proved to be a large solution for e-commerce (Beetle al., 2013), but the internet options yet pose many strong and weak points.

Some of these weaknesses consist of a lack of accuracy regarding information, which is the more important weakness among others (Massa & Bhattacharjee,2004). To decrease some of these weaknesses, collaborative filtering methods have been combined with content-based methods to come up with hybrid recommender systems (Massa & Bhattacharjee, 2004). Moreover, explicit, and implicit remarks have also been mixed to enhance the accuracy of recommenders (Massa & Bhattacharjee, 2004; Guo et al., 2014). The absence of precision is basically because of errors coming with the use of contradicting algorithms, incapable to realize contrasting issues between having distrust and faith, putting into consideration the web of having faith (Massa & Bhattacharjee, 2004; Abadi et al., 2016). Picture recovery can be depicted as the errand of looking out for pics in a picture data set. This is present not an astute thought, considering

everything. It has been explored on account of the way that the 1970s joined informational collection associations with PC vision, looking into the issue as indicated through two uncommon perspectives, the first being text-based and the second one being visual-based.

1.1 Project Overview

In recent years, with the huge amount of information and users of the internet service, it is hard to know quickly and accurately what the user wants. This phenomenon leads to extremely low utilization of information, also known as the information overload problem. Traditionally, keywords are used to retrieve images, but such methods require a lot of annotations on the image data, which will lead to serious problems such as inconsistent, inaccurate, and incomplete descriptions, and a huge amount of work. To solve this problem, Content Based Information Retrieval (CBIR) has gradually become a research hotspot.

CBIR retrieves picture objects based entirely on the content. The content of an image needs to be represented by features that represent its uniqueness. Any picture object can be represented by its specific shapes, colors, and textures. These visual characteristics of the image are used as input conditions for the query system, and as a result, the system will recommend the nearest images and data set. This research designs and implements a two-stage deep learning-based model that recommends a clothing fashion style. This model can use a deep learning approach to extract various attributes from images with clothes to learn the user's clothing style and preferences. These attributes are provided to the correspondence model to retrieve the contiguous related images for the recommendation. Based on data-driven, this thesis uses a convolutional neural network as a visual extractor of image objects. This experimental model shows and achieves better results than the ones of the previous schemes.

1.2 Purpose

The combination of fashion preferences and the above-mentioned factors associated with clothing choices could transmit the image features for a better understanding of consumers' preferences. Therefore, analyzing consumers' choices and recommendations is valuable to fashion designers and retailers. A recommendation system is an artificial intelligence or AI algorithm, usually associated with machine learning, that uses Big Data to suggest or recommend additional products to consumers. These can be based on various criteria, including past purchases, search history, demographic information, and other factors. A recommender system aims **to** estimate the utility of a set of objects belonging to a given domain, starting from the information available about users and objects.

Product recommendation engines are an excellent way to deliver customers with an improved user experience. Leveraging advanced algorithms such as machine learning and AI, a recommendation system can help bring customers the relevant products they want or need. Product recommendations are part of an e-Commerce personalization strategy wherein products are dynamically populated to a user on a webpage, app, or

email based on data such as customer attributes, browsing behavior, or situational context—providing a personalized shopping experience.

2. LITERATURE SURVEY

Recommender Systems are typically characterized by their way to deal with the estimation of ratings. Here, we study different types of recommender systems. The definition was expressed in [27], [28] for the first time and has been considered widely.

Additionally, recommender systems are normally arranged into these categories, considering how suggestions are made:
1. **Content-based**: Recommendation of items happens based on how the user favored items previously.
2. **Collaborative-based**: In this case, we look for users with similar preferences and tastes, and based on this, the user will be suggested items.

S.No.	Name of the Journal	Author/Publisher	Year of Publication	Theme	Inference
1.	A Review of Modern Fashion Recommender Systems	Yashar Deldjoo, et al.	2022	The textile and apparel industries have grown tremendously over the last years. Customers no longer have to visit many stores, stand in long queues, or try on garments in dressing rooms as millions of products are now available in online catalogs.	In this survey, we have analyzed and classified the recommender systems that function in a specific vertical market. This domain presents a unique collection of challenges and sub-problems pertinent to the development of successful recommender systems.
2.	Fashion Recommendation System	Aneesh K, et al.	2022	Fashion Recommendation System is used in order to classify the user's clothes and recommend the most suitable outfit for a given occasion using a recommendation algorithm	The proposed system shows that it can process the user's clothes from the images, identify the type and color of the outfit and finally recommend the most suitable outfit for the given occasion based on the user's existing clothes.
3.	Product Recommender Chatbot	Neera Sanjay Agashe	2021	This research will recommend the perfumes according to customers moods, likings, etc. Customer just has to write description of perfume which he/she wants to buy.	This system tries to recognise customers behaviour and then recommend the products according to their interest. Each shopping website has their own way of recommending products and follow different recommender system.
4.	Image-based fashion recommender systems	Shaghayegh Shirkhani	2021	This idea aims to provide deeper insight into the fashion recommender system domain by focusing on image-based fashion recommender systems considering computer vision advancements.	We can conclude that developing fashion recommender systems a necessity for the fashion domain, in this contemporary society, as a competitive advantage leveraging the power of data within employing machine learning methods and AI solutions for different purposes.
5.	A Survey on Conversational Recommender Systems	Dietmar Jannach, Ahtsham Manzoor	2021	A complete knowledge on Conversational Recommender Systems (CRS)	They support a task-oriented, multi-turn dialogue with their users. During such a dialogue, the system can elicit the detailed and current preferences of the user, provide explanations for the item suggestions, or process feedback by users on the made suggestions.

Fig 2.1) Literature Survey

3. **Hybrid-based:** These are methods that club together both "content-based and collaborative-based methods".

Apart from the ideas we discussed above recommender systems predict the ratings which a person would give to a not yet-seen item, there are several other works done in the field of recommender systems which we call preference-based filtering. This filtering estimates the preference of the users for items. Consider movie recommenders. Here, preference filtering would help in ranking the movies based on ranking for the customers or users. These methods make use of similarity metrics to evaluate the

distance between items and between users. Model-based: The recommendation system in this creates a model based on the information provided to them. "Among the most broadly utilized models, we have matrix factorization, neural networks, latent features, fuzzy systems, Bayesian classifiers, genetic algorithms, and among others."

2.1 Existing problem:

It is a process of collecting and interpreting facts, identifying the problems, and decomposition of a system into its components. It is a problem-solving technique that improves the system and ensures that all the components of the system work efficiently to accomplish their purpose.

2.2 REFERENCE:
1. Park, D. H., Choi, I. Y., Kim, H. K. & Kim, J. K. (2011). A review and classification of recommender systems research. International Proceedings of Economics Development & Research.
2. Schafer, J. B., Konstan, J. & Riedl, J. (1999). Recommender systems in ecommerce. Proceedings of the 1st ACM conference on electronic commerce, 1999.
3. Beel, J., Langer, S., Genzmehr, M., Gipp, B., Breitinger, C. & Nürnberger (2013). A. Research paper recommender system evaluation: a quantitative literature survey , 2013.
4. Chakraborty, S.; Hoque, S.M.A.; Kabir, S.M.F. Predicting fashion trend using runway images: Application of logistic regression in trend forecasting. *Int. J. Fash. Des. Technol. Educ.* **2020**,
5. Garude, D.; Khopkar, A.; Dhake, M.; Laghane, S.; Maktum, T. Skin-tone and occasion oriented outfit recommendation system. *SSRN Electron. J.* **2019**.
6. Kang, W.-C.; Fang, C.; Wang, Z.; McAuley, J. Visually-aware fashion recommendation and design with generative image models. In Proceedings of the 2017 IEEE International Conference on Data Mining (ICDM), New Orleans, LA, USA, 18–21 November 2017.
7. Guan, C.; Qin, S.; Ling, W.; Ding, G. Apparel recommendation system evolution: An empirical review. *Int. J. Cloth. Sci. Technol.* **2016**, *28*, 854–879.
8. Liu, Y.; Gao, Y.; Feng, S.; Li, Z. Weather-to-garment: Weather-oriented clothing recommendation. In Proceedings of the 2017 IEEE International Conference on Multimedia and Expo. (ICME), Hong Kong, China, 31 August 2017; pp. 181–186.
9. Yamaguchi, K.; Kiapour, M.H.; Ortiz, L.E.; Berg, T.L. Parsing clothing in fashion photographs. In Proceedings of the 2012 IEEE Conference on Computer Vision and Pattern Recognition, Providence, RI, USA, 16–21 June 2012; pp. 3570–3577.
10. 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.

11. Akabane, T.; Kosugi, S.; Kimura, S.; Arai, M. Method to consider familiarity in clothing coordination recommender systems. In Proceedings of the 2011 3rd International Conference on Computer Research and Development, Shanghai, China, 11–13 March 2011
12. Suganeshwari, G.; Syed Ibrahim, S.P.A. Survey on collaborative filtering based recommendation system. In *Proceedings of the 3rd International Symposium on Big Data and Cloud Computing Challenges (ISBCC–16')*; Vijayakumar, V., Neelanarayanan, V., Eds.; Springer International Publishing: New York, NY, USA, 2016; Volume 49, pp. 503–518.
13. Song, S., & Mei, T. (2018). When multimedia meets fashion. IEEE MultiMedia, 25(3), 102-108.
14. Guan, C., Qin, S., Ling, W., & Ding, G. (2016). Apparel recommendation system evolution: an empirical review. International Journal of Clothing Science and Technology.
15. Lu, J., Wu, D., Mao, M., Wang, W., & Zhang, G. (2015). Recommender system application developments: a survey. Decision Support Systems, 74, 1232.
16. Adomavicius, G., & Tuzhilin, A. (2005). Toward the next generation of recommender systems: A survey of the state-of-the-art and possible extensions. IEEE transactions on knowledge and data engineering, 17,
17. Al-Halah, Z., Stiefelhagen, R., & Grauman, K. (2017). Fashion forward: Forecasting visual style in fashion. In Proceedings of the IEEE international conference on computer vision .
18. Fan, W., Qiyang, Z., & Baolin, Y. (2014, October). Refined clothing texture parsing by exploiting the discriminative meanings of sparse codes. In 2014 IEEE International Conference on Image Processing (ICIP)
19. Yamaguchi, K., Hadi Kiapour, M., & Berg, T. L. (2013). Paper doll parsing: Retrieving similar styles to parse clothing items. In Proceedings of the IEEE international conference on computer vision
20. Zhu, S., Urtasun, R., Fidler, S., Lin, D., & Change Loy, C. (2017). Be were own prada: Fashion synthesis with structural coherence. In Proceedings of the IEEE international conference on computer vision
21. Huang, J., Feris, R. S., Chen, Q., & Yan, S. (2015). Cross-domain image retrieval with a dual attributeaware ranking network. In Proceedings of the IEEE international conference on computer vision.
22. Kuang, Z., Gao, Y., Li, G., Luo, P., Chen, Y., Lin, L., & Zhang, W. (2019). Fashion retrieval via graph reasoning networks on a similarity pyramid. In Proceedings of the IEEE/CVF International Conference on Computer Vision
23. Zhao, B., Feng, J., Wu, X., & Yan, S. (2017). Memory-augmented attribute manipulation networks for interactive fashion search. In Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition
24. Wang, Z., Gu, Y., Zhang, Y., Zhou, J., & Gu, X. (2017, December). Clothing retrieval with visual attention model. In 2017 IEEE Visual Communications and Image Processing (VCIP)

25. Park, S., Shin, M., Ham, S., Choe, S., & Kang, Y. (2019). Study on fashion image retrieval methods for efficient fashion visual search. In Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition Workshop

26. Wu, Q., Zhao, P., & Cui, Z. (2020). Visual and textual jointly enhanced interpretable fashion recommendation

27. Song, X., Feng, F., Han, X., Yang, X., Liu, W., & Nie, L. (2018, June). Neural compatibility modeling with attentive knowledge distillation. In The 41st International ACM SIGIR Conference on Research & Development in Information Retrieval

28. Ding, Y., Ma, Y., Wong, W., & Chua, T. S. (2021). Modeling Instant User Intent and Content-level Transition for Sequential Fashion Recommendation. IEEE Transactions on Multimedia.

29. Stefani, M. A., Stefanis, V., & Garofalakis, J. (2019, July). CFRS: A TrendsDriven Collaborative Fashion Recommendation System. In 2019 10th International Conference on Information, Intelligence, Systems and Applications (IISA)

30. Gatys, L. A., Ecker, A. S., & Bethge, M. (2016). Image style transfer using convolutional neural networks. In Proceedings of the IEEE conference on computer vision and pattern recognition

31. Rodríguez, J. A. S., Wu, J. C., & Khandwawala, M. (2020). Two-Stage Session-Based Recommendations with Candidate Rank Embeddings. In Fashion Recommender System

32. Wen, J., Li, X., She, J., Park, S., & Cheung, M. (2016, December). Visual background recommendation for dance performances using dancer-shared images. In 2016 IEEE International Conference on Internet of Things (iThings) and IEEE Green Computing and Communications (GreenCom) and IEEE Cyber, Physical and Social Computing (CPSCom) and IEEE Smart Data (SmartData)

33. Chen, L. C., Yang, Y., Wang, J., Xu, W., & Yuille, A. L. (2016). Attention to scale: Scale-aware semantic image segmentation. In Proceedings of the IEEE conference on computer vision and pattern recognition

34. Limaksornkul, C., Nakorn, D. N., Rakmanee, O., & Viriyasitavat, W. (2014, March). Smart closet: Statistical-based apparel recommendation system. In 2014 Third ICT International Student Project Conference

35. Matzen, K.; Bala, K.; Snavely, N. StreetStyle: Exploring world-wide clothing styles from millions of photos. arXiv 2017

36. Guan, C.; Qin, S.; Ling, W.; Ding, G. Apparel recommendation system evolution: An empirical review. Int. J. Cloth. Sci. Technol. 2016

37. Sachdeva, H.; Pandey, S. Interactive Systems for Fashion Clothing Recommendation. In Emerging Technology in Modelling and Graphics; Mandal, J.K., Bhattacharya, D., Eds.; Springer: Singapore, 2020;

2.3 Problem Statement Definition:

A problem statement is a concise description of the problem or issues a project seeks to address. The problem statement identifies the current state, the desired future state and any gaps between the two. A problem statement is an important communication tool

that can help ensure everyone working on a project knows what the problem they need to address is and why the project is important.

Fig 2.2) Problem Statement Definition

A problem statement is important to a process improvement project because it helps clearly identify the goals of the project and outline the scope of a project. It also helps guide the activities and decisions of the people who are working on the project. The problem statement can help a business or organization gain support and buy-in for a process improvement project.

KEY ELEMENTS OF PROBLEM STATEMENT:

There are four key elements we should include when writing a problem state, Ideation situation:

This section identifies the goals and scope of the project section should create a clear understanding of what the ideal environment will be once the issue has been resolved.

Reality:

Problem statement should describe what the current reality is for were company or organization. Section will identify what the problem is, state why it is a problem and

identify who the problem is impacting. It will also describe when and where the problem was identified.

Consequences:

Problem statement should identify what the consequences of the problem are. section describes the effects of the problem by describing how the people affected by the problem are being impacted and quantifying how much the problem is impacting them. Common consequences can include the loss of time, money, resources, competitive advantage, productivity and more.

Proposal:

The proposal section of a problem statement may contain several possible solutions to the problem, but it is important to remember that it does not need to identify a specific solution. The purpose of the proposal section should be to guide the project team on how they can research, investigate and resolve the problem.

How to write problem statement?

A good problem statement can be created by identifying and answering several questions related to the problem,
- ✓ Identify the Problem
- ✓ Begin were statement with were ideal situation
- ✓ Describe current gaps
- ✓ State the consequence of the problem
- ✓ Propose addressing the problem

3. IDEATION & PROPOSED SOLUTION

3.1 Empathy Map Canvas

An empathy map canvas is a more in-depth version of the original empathy map, which helps identify and describe the user's needs and pain points. And this is valuable information for improving the user experience.

Teams rely on user insights to map out what is important to their target audience, what influences them, and how they present themselves. This information is then used to create personas that help teams visualize users and empathize with them as individuals, rather than just as a vague marketing demographic or account number.

Uses of empathy map canvas:

An empathy map canvas helps brands provide a better experience for users by helping teams understand the perspectives and mindsets of their customers. Using a template to

create an empathy map canvas reduces the preparation time and standardizes the process so we create empathy map canvases of similar quality.

Fig 3.1) Empathy Map Canvas

To identify user needs and enhance the overall experience

- Good canvases rely on insights from actual users, which help provide an accurate picture of how they feel about their experience with the product.
- This provides insight into which features are accessed the most often and how they are used.
- And this knowledge empowers teams to make the improvements that most benefit the user and increase the product's value.

To learn what motivates users to buy

- Revenue-driven design teams use an empathy map canvas to learn what factors most impact a user's decision to pay for the product or service.
- This can be particularly useful when teams want to push a new subscription plan and need to understand which features might prompt users to upgrade.

How to create an empathy map canvas?

Empathy maps are divided into segments, which are typically defined by questions that teams work to answere one by one to complete the map. Using MURAL's template allows we to add color-coded sticky notes to help categorize answeres visually.

What do users say and do?

- Answers to this question should come from interviews with customers, survey responses, or any other channel that provides direct feedback from customers.
- Try to include direct quotes from users in this section, such as, "I love this product; it saves me so much time every week."
- These objective metrics can help we measure and track improvements over time.

What do users think and feel?

- Brainstorm and identify user goals for the product.
- Consider any fears that might present a hurdle to the sales team, like if they worry about difficult-to-navigate interfaces that slow them down or make their job impossible.
- Understanding these nuances helps teams identify which features that users prioritize, which allows them to ensure what they offer aligns with users' needs.

What do users see and hear?

- To answer these questions, think about the person's environment and the outside influences that surround them, including friends, colleagues, and media outlets.
- For example, their friends might discuss products they use at work or read an industry publication that ranks best-in-class productivity tools
- It's also important to ask what a customer stands to gain from using the product. Determine what pain points it solves by asking questions like.

How to use the empathy map canvas template?

The empathy map canvas template provides an easy way for teams to visualize and better understand their target users. MURAL's customizable template provides features that allow us to maximize the map's effectiveness by tailoring it to were user base.

Create multiple persons

- User bases are varied, consisting of many individuals who might have different reasons for using the platform.
- Relying on a single persona won't provide an accurate picture of who the average users are or what they need.

- MURAL allows we to create were templates and easily duplicate them, which means we can create as many customized personas as we want.
- The more personas were team creates the better picture they'll have of what the user base looks like.

Use a photo to help visualize the user

- The center of the empathy map canvas template offers a space for a photo to represent the user persona, which helps team members identify with the user as an actual person.
- And MURAL helps fill this space by offering a variety of portrait options on its "image" tab, which allows users to search for the perfect photo to represent the user and bring the persona to life.

Edit instructions to better support were team

- This template allows the board's creator to edit the outline to provide clear and tailored instructions that help team members brainstorm and answer key questions.
- For example, instructions might include guidance like, "List industry publications that have mentioned our brand," or prompts like, "What do users think about the platform's interface?"

3.2 Ideation & Brainstorming

- Brainstorming provides a free and open environment that encourages everyone within a team to participate in the creative thinking process that leads to problem-solving.
- Prioritizing volume over value, out-of-the-box ideas are welcome and built upon, and all participants are encouraged to collaborate, helping each other develop a rich number of creative solutions.
- Use this template in were brainstorming sessions so were team can unleash their imagination and start shaping concepts even if we're not sitting in the same room.

The three -phased approach to brainstorming,
- Preparation.
- Facilitation.
- Follow Through.

Phase I: Preparation

Prepare a short executive summary that can be quickly scanned for the key points we need the team to focus on, Now decide whom to invite.

Choose a mix of colleagues with different work and life experiences. Diversity is fundamental to successful brainstorming.

Provide the executive summary with the meeting invitation and ask each invitee to bring three ideas to share during the session.
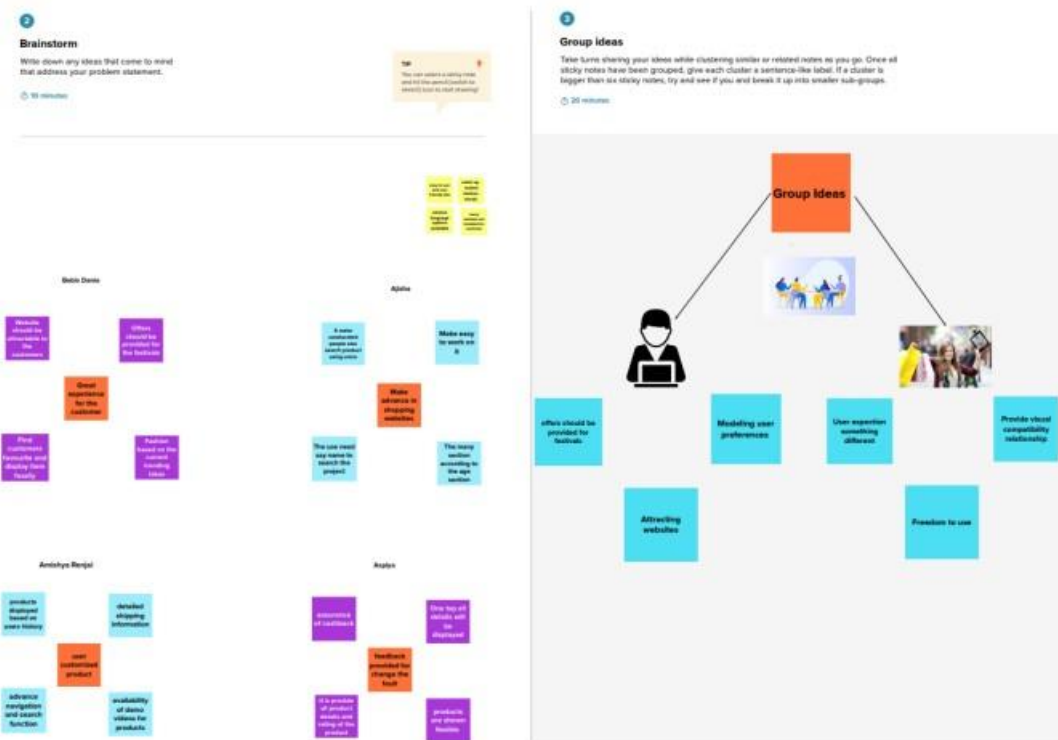
Fig 3.2) Preparation Chart Phase II: Facilitation

A brainstorming session needs structure and guidance. Designate a facilitator to encourage participation, act as a timekeeper, and play devil's advocate when needed. Keep track of where ideas on a whiteboard or with sticky notes on a wall. This will have one significant, positive consequence—visual proof of were progress will help keep the team motivated. And don't be afraid to scrap or table some ideas immediately.

Not every idea is a good one or even possible to execute. Be kind but don't waste valuable brainstorming time on ideas that have no chance of going anywhere. Before ending the session, make sure there are clear, agreed-upon expectations and takeaways. Everyone needs to leave the session knowing what's next and how or even if they will play a role in execution.

Phase III: Follow Through

After the session, prioritize and share the most viable ideas, separating them by those more easily implemented, those that would take more work, and those tabled for further discussion.

This takes time and is our responsibility. As we're doing this, start thinking about resources needed from the team, budget, and how we might test and pilot initiatives, as well as how we'll measure success. Take this seriously, and don't be afraid to make decisions.

We'll most likely get some pushback from colleagues, so it's okay to compromise or reprioritize the list as needed. If possible, act on one or two ideas immediately so that everyone can see the result of their hard work.

Benefits of Brainstorming

Outside Input: Brainstorms allow others to freely propose ideas. It can be extremely difficult to come up with new ideas being the person closest to the issue. Inviting others into the conversation to figure out new ways of doing things allows people less familiar with the issue to speak openly about

Idea Building: The concept of idea building is sharing ideas, which triggers new ideas, and creates a chain of new thoughts. The only way idea building can thrive in a brainstorming session is if no ideas are immediately shut down. This will discourage people from sharing and in turn, will limit the success of the session.

Breaks Routine: Another benefit of having a brainstorming session is getting out of a normal routine. Maybe there are no apparent issues to be solved with how things are operating. A brainstorming session over a project can still be beneficial because it can reveal improvements we didn't even know we needed.

List Generation: Each session should have at least one person writing ideas down so no idea are lost. One of the best parts of leaving a brainstorming session is the list of ideas we can take with we and build off in the future. Not everything may be applied immediately, but a list of ideas can help we think creatively for months after the actual session took place.

Teamwork: Last but not least, brainstorming sessions create a team atmosphere. Brainstorms don't happen without people. Inviting co-workers into a brainstorming session helps solidify that we are on the same team and opens the option to ask for help from others.

Concept of ideation: Ideation is the process where we generate ideas and solutions through sessions such as Sketching, Prototyping, Brainstorming, Brainwriting, Worst Possible Idea, and a wealth of other ideation techniques. Ideation is also the third stage in the Design Thinking process.
Ideation is the process where we generate ideas and solutions through sessions such as Sketching, Prototyping, Brainstorming, Brain writing, Worst Possible Idea, and a wealth of other ideation techniques. Ideation is also the third stage in the Design Thinking process.

Ideation Process:

Ideation is the creative process of generating, developing, and communicating ideas. It's important to note that these ideas don't have to be completely new. Specific problems, investigate new ways of implementing a solution, or even collect feedback and evaluate ideas.

As we can see, ideation is not just a one-time idea generation or a brainstorming session. We can divide ideation into these three stages: generation, selection, and development. Even though they might have similarities, idea management is not the same as ideation. Ideation is more focused and linked to a specific problem or opportunity, while idea management is done at the level of the organization.

Key success factors for ideation

Some of the greatest ideas had to wait for many years before implementation. For example, the idea of a mobile phone can be traced down to the early 1900s, but it took a lot of refinement, development, and other technologies to be invented before we had the first real mobile phone. Some of the major challenges of ideation to increase were odds of success.

    □ **Align ideation with strategic goals**

No matter what kind of solutions and ideas we're looking for, it's essential to set a quantifiable goal for were ideations. The goal we choose should be easy to reach, but also ambitious enough.

Is this goal pursuing a long-term agenda or is it a one-time thing? How will ideas move forwards, who's in charge, and so on? This step will also give some clarity on the problem or opportunity we're working to solve. A detailed plan that fits the strategic goals of the organization will make things easier along the way. □ **Structured and methodical approach**

Ideas alone can't make innovation happen and individual innovation activities won't bring long-term impactful results. We need a systematic approach to ideation, to make it part of the daily work. We should think of ideation as a mindset embedded in the culture of the organization.

The structure and methodical aspects are still essential. We must figure out how to turn raw ideas that are always bubbling on the surface, into something that can create value. For this, it's important to allocate resources in advance and have a safety net prepared for implementing these ideas.

    □ **Ask the right questions**

By asking the right question we can transition from identifying the right problem to creating the solution.

3.3 Proposed Solution

The proposed Solution means the data de-duplication system submitted by a Vendor as described in its Response, consisting of the Products and Services.

S.NO	Parameter	Description
1	Problem statement	Customer feel difficult when search many websites to find fashion clothes and accessories.
2	Idea/solution description	Customer directly make online shopping based on customer choice without any search.
3	Novelty/Uniqueness	The customer will talk to chat bot regarding the products.
4	Social impact/customer satisfaction	The user friendly, interface form chat bot finding dress makes customer satisfied.
5	Business model	The chat bot sells our products to customer.
6	Scalability of the solution	We can easily scalable our application by increases the items and products.

Fig 3.3) Proposed solution chart

The main goal of presenting a business proposal is to provide a solution to a problem faced by a potential buyer. This section should be as comprehensive as possible, and able to address all the needs that we have pointed out in the first section.

3.4 Problem Solution Fit:

- The Problem-Solution Fit canvas is based on the principles of Lean Startup, LUM (Lazy User Model) and User Experience design. It helps entrepreneurs, marketers and corporate innovators identify behavioral patterns.
- It is a template to help identify solutions with higher chances of solution adoption, reduce time spent on testing and get a better overview of the current situation.
- My goal was to create a tool that translates a problem into a solution, taking into account customer behavior and the context around it .
- With this template we will be able to take important information into consideration at an earlier stage and look at problem solving in depth.
- It increases were chances of finding problem-solution and product-market fit.

     STRUCTURE:
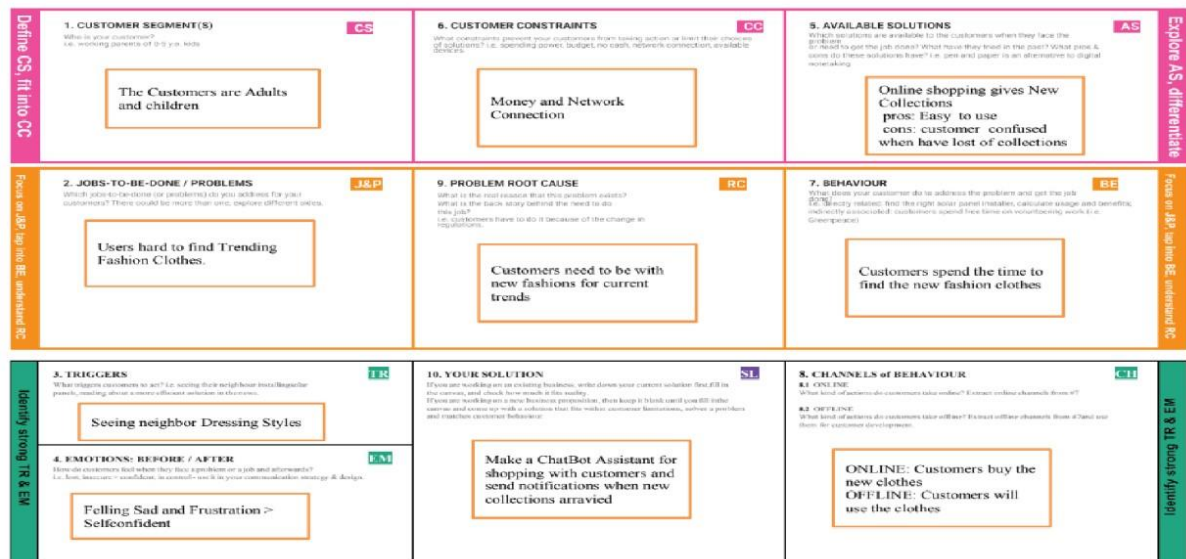
Fig 3.4) Structure of solution fit

1. **Customer State fit:** To make sure we understand were target group, their limitations and their currently available solutions, against which we are going to compete.
2. **Problem-Behavior fit:** to help we filter out the noise and identify the most urgent and frequent problems, understand the real reasons behind them and see which behavior supports it. Is this behavior weak or infrequent — is it a problem worth solving?
3. **Communication-Channel fit:** to help we sharpen were communication with strong triggers, emotional messaging and reaching customers via the right channels.
4. **Solution guess**: translate all the validated data we have gathered into a solution that fits the customer state and his/her limitations, solves a real problem and taps into the common behavior of were target group.

- Problem-Solution canvas is a tool for entrepreneurs, marketers and corporate innovators, which helps them identify solutions with higher chances for solution adoption, reduce time spent on solution testing and get a better overview of current situation.
- Such data is typically discovered "on the go", after rounds of iterations and customer interviews, but it's crucial for were success.
- This canvas is based on principles of Lean Startup, LUM and User Experience design, it combines everything we need to identify patterns and recognize what would work and why.
- Simply be where were customers are and solve a real problem, it's either the same done differently or something new, presented in a familiar way."

How can it increase my chances of solution adoption?

- We need to understand existing customer situation to design for improvement.
- Some problems that appear weak at first may have an intense related behavior, the real identifier of whether this problem is worth solving (eg. browsing, collecting and spending plenty of time on it) and, therefore, has a good chance to be adopted.
- Others seem very complex and unsolvable at first.
- Once we recognize the underlying reason of the problem and repeated pattern or annoyance related to it, we will be able to identify an easy solution to solve a part of the problem scope.
- This will build trust and increase touch-points with were customers, which helps we to level up later and solve the whole problem scope (Captable.io & Startuprunway.io of LTSE are good examples).

4. REQUIREMENT ANALYSIS

4.1 Function Requirement
Following are the functional requirements of the proposed solution.

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

Fig 4.1) Functional Requirements

4.2 Non-Functional Requirements

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

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

Fig 4.2) Non-Functional Requirements

5. PROJECT DESGIN

5.1 Data Flow Diagram
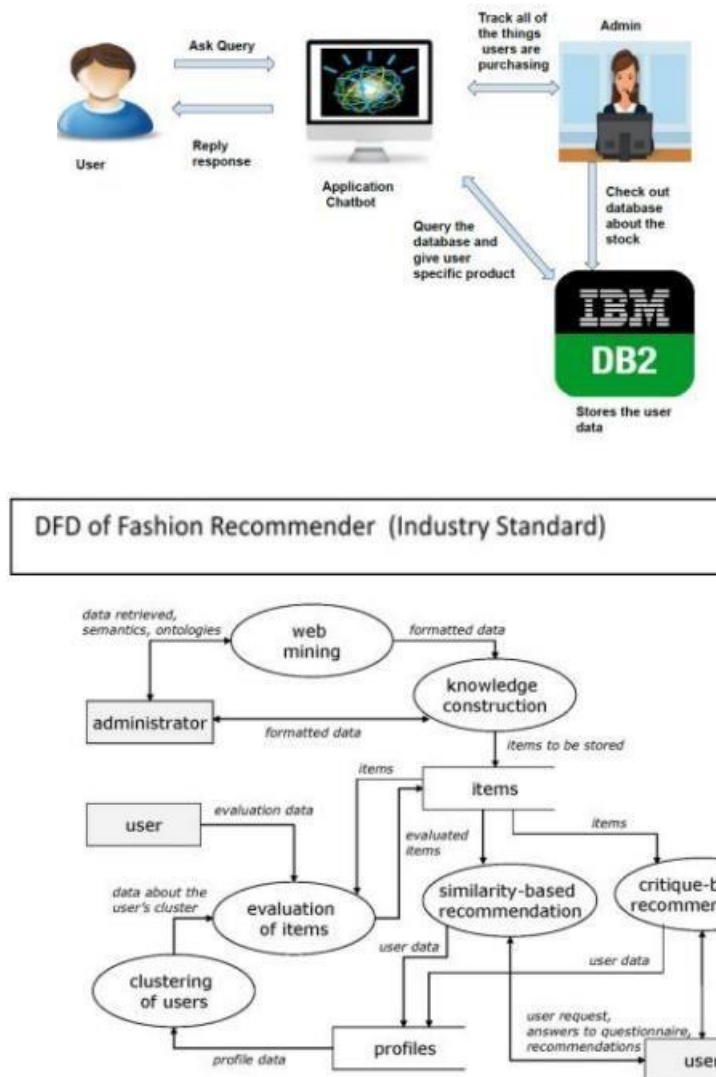
Fig 5.1) Data flow diagram

5.2 Solution & Technical Architecture
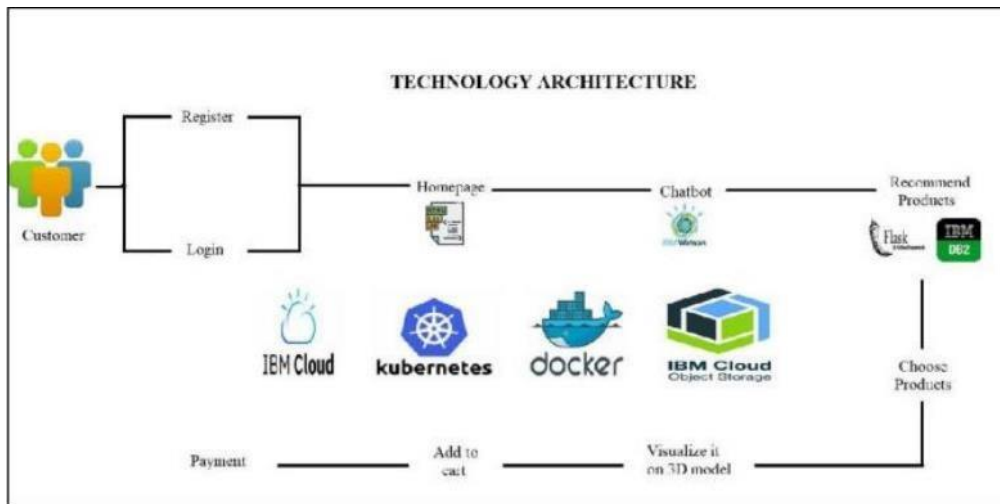
Fig 5.2) Solution Architecture

Components and Technology

S.NO	Component	Technology	Description
1.	User Interface	HTML, CSS, JavaScript/Angular JS / React JS.	User can interact with the application through chatbot for good Human-computer interface.
2.	Application Logic-1	Java Python	The application will have the login /signup page where the user can login into the main dashboard or they can register into the application.
3.	Application Logic-2	IBM Watson STT service	The application contains a Chatbot where the user needs to give their details like ✓ gender, ✓ age, ✓ type of product these were they wish to buy using Watson assistant through chatbot.
4.	Application Logic-3	IBM Watson Assistant	User's will get the recommendations based on their interests, can get the details about offers, discounts and chatbot will send a notification to customers if the order is confirmed.
5.	Database	MySQL, NoSQL,	Customer's details and order are stored in the database and whenever we can be fetch and retrieve data from database.
6.	Cloud Database	IBM DB2, IBM Cloud account	With use of Database Service on Cloud, user can access all the data stored in the cloud over a network from any device and user's data are stored in a well secure manner.
7.	File Storage	IBM Block Storage or Other Storage or Other Storage Service or Local Filesystem	Previously ordered product details and other customer details can be stored in the IBM Block Storage as the data kept inside are highly protected.
8.	Infrastructure (Server/Cloud)	Local, Cloud Foundry, Kubernetes, Docker	Chatbot with updated services can be deployed in an IBM cloud by using Watson assistant.

Fig 5.3) Components and Technology

S. No	Characteristics	Technology	Description
1.	Open-Source Frameworks	Python - Flask	• Flask is a web framework in Python is used in the implementation of smart fashion recommender application.
2.	Security Implementations	Container Registry, Kubernetes Cluster.	• This application uses Container Registry in IBM cloud so that the user details are kept as more secure and confidential. • User have to confirm the login while logging in to avoid any misuse of the credentials.
3.	Scalable Architecture	Container Registry, Kubernetes Cluster.	• The Smart Fashion Recommender Application is more useful whenever user's make online purchase and it's demand increase at festival season's to know about the available offers and discounts.
4.	Availability	Docker, Kubernetes Cluster.	• Docker helps to improve the network management so that the application can be accessed at anytime.
5.	Performance	Docker, Kubernetes Cluster.	• The performance of this application is high. • Efficient as the network traffic can be easily managed.

Fig 5.4) Architecture characteristics

5.3 User Stories:

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

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

Fig 5.5) User stories

6. PROJECT PLANNING & SCHEDULING

6.1 Sprint Planning & Estimation:

Sprint planning is an event in scrum that kicks off the sprint. The purpose of sprint planning is to define what can be delivered in the sprint and how that work will be achieved. Sprint planning is done in collaboration with the whole scrum team. A sprint is a time-boxed interval that defines the time allocated to complete a task. Note: No matter how accurately a business estimates the effort required to complete a user story in Agile, an estimate is still an estimate.

Fig 6.1) Sprint Planning

6.2 Sprint Delivery Schedule:

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story points	Priority	Team Members
Sprint-1	Setting up App environment	USN-1	As a user, I can register in ICTA Academy and create IBM cloudaccount.	2	High	Ajisha J Amishya Renjai R J
Sprint-1		USN-2	As a user, I will create a flaskproject	1	Low	Babis Dania T Aspiya S
Sprint-1		USN-3	As a user, I will install IBM CloudCLI	2	Medium	Ajisha J Amishya Renjai R J
Sprint-2	Setting up App environment	USN-4	As a user, I can install Docker CLI	1	Low	Babis Dania T Aspiya S
Sprint-2		USN-5	As a user, I will Create an accountin sendgrid	2	Medium	Ajisha J Amishya Renjai R J
Sprint-3	Implementing web application	USN-6	As a user, I Create UI to interact with the application	1	High	Babis Dania T Aspiya S
Sprint-3		USN-7	As a user, I Create IBM DB2 and connect with Python	3	High	Ajisha J Amishya Renjai R J
Sprint-3	Integrating sendgrid service	USN-8	As a user, I will be integrating sendgridwith python code	2	High	Babis Dania T Aspiya S
Sprint-3	Developing a chatbot	USN-9	As a user, I must build a chatbot and integrate to application	1	Medium	Ajisha J Amishya Renjai R J
Sprint-4	Development of App in IBM Cloud	USN-10	As a user, I will Containerize the App	1	Low	Babis Dania T Aspiya S
Sprint-4		USN-11	As a user, I will upload image to IBM Container registry	2	Medium	Ajisha J Amishya Renjai R J
Sprint-4		USN-12	As a user, I will deploy App in Kubernetes cluster	3	High	Babis Dania T Aspiya S
Sprint-4	User panel		As a user • Register, Login, Email, Verification • Manual Search • Order placement, Order Details	3	High	Ajisha J Amishya Renjai R J Babis Dania T Aspiya S

Fig 6.2) Spring delivery schedule

6.3 Reports from JIRA

28
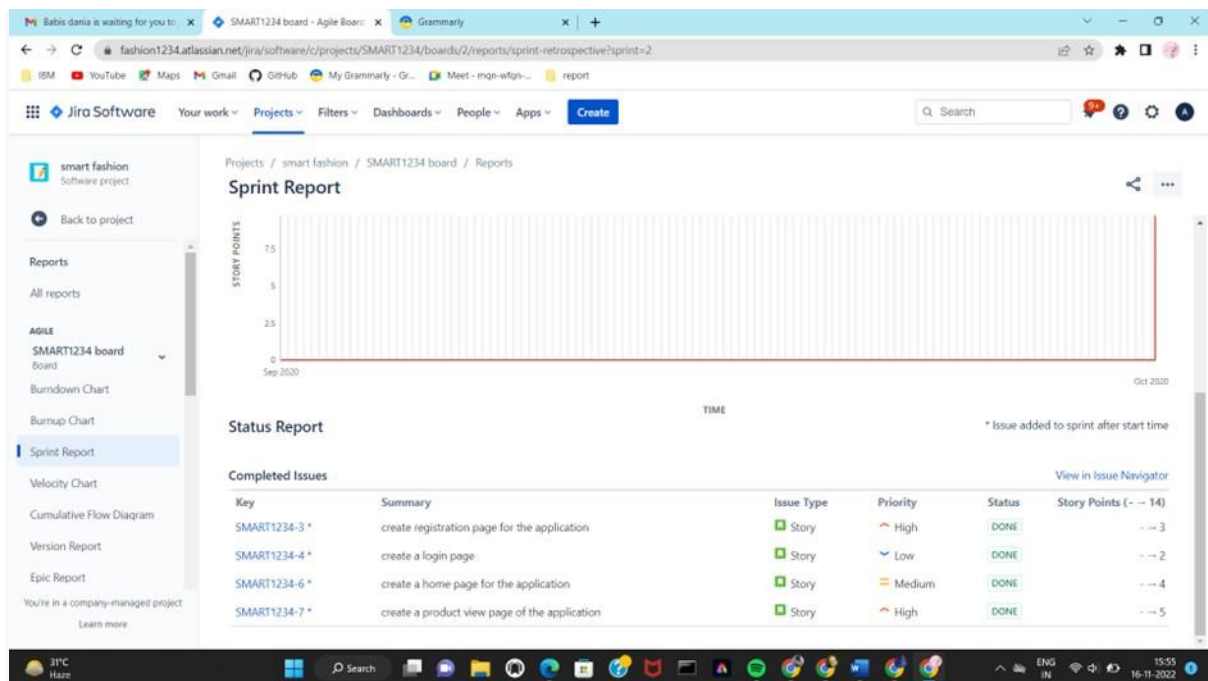
Fig 6.3) Sprint 1 Report
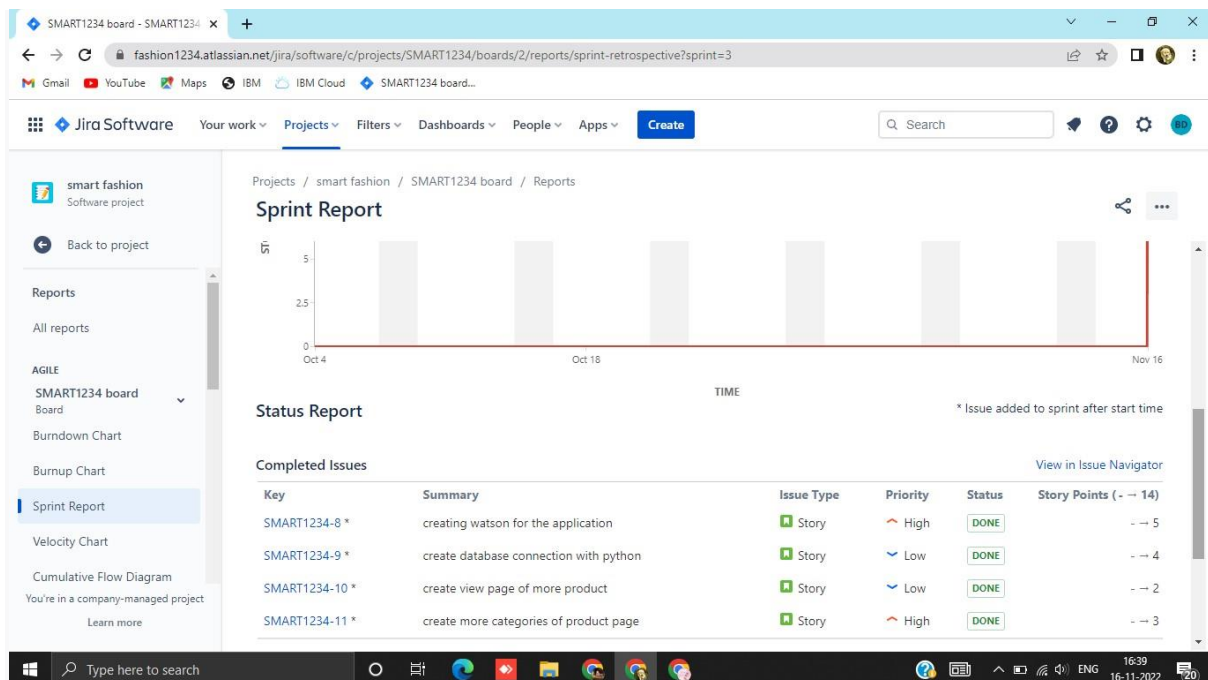
Fig 6.4) Sprint 2 Report
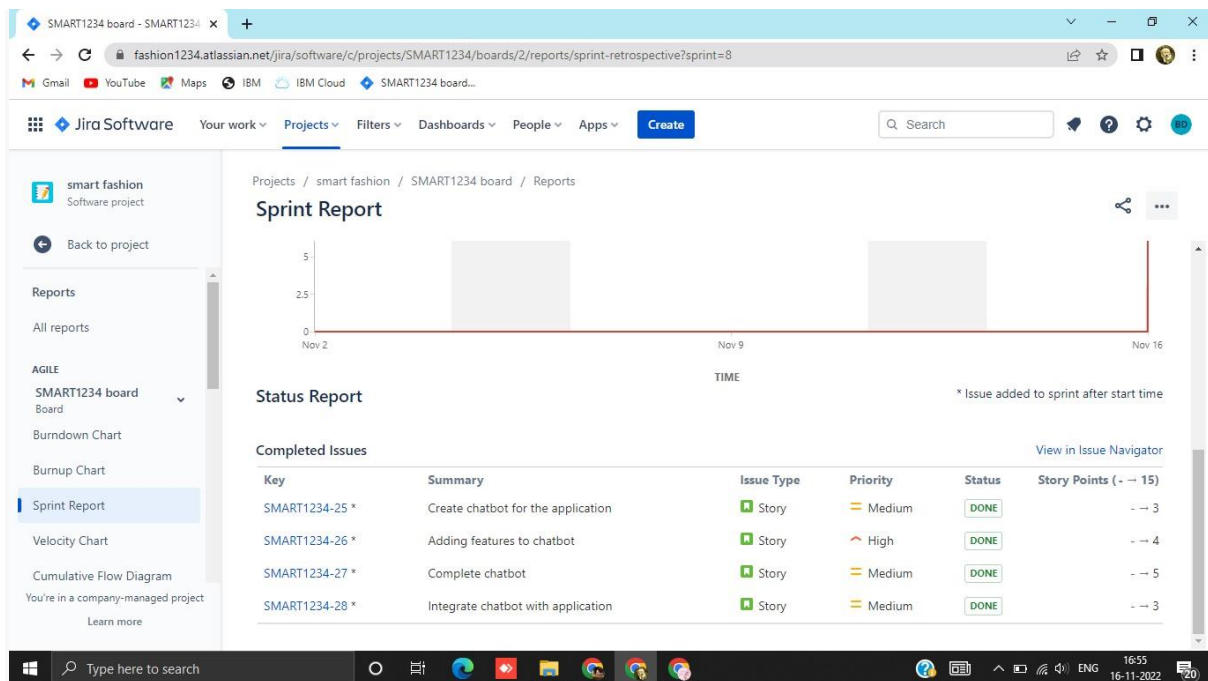
Fig 6.4) Sprint 3 Report
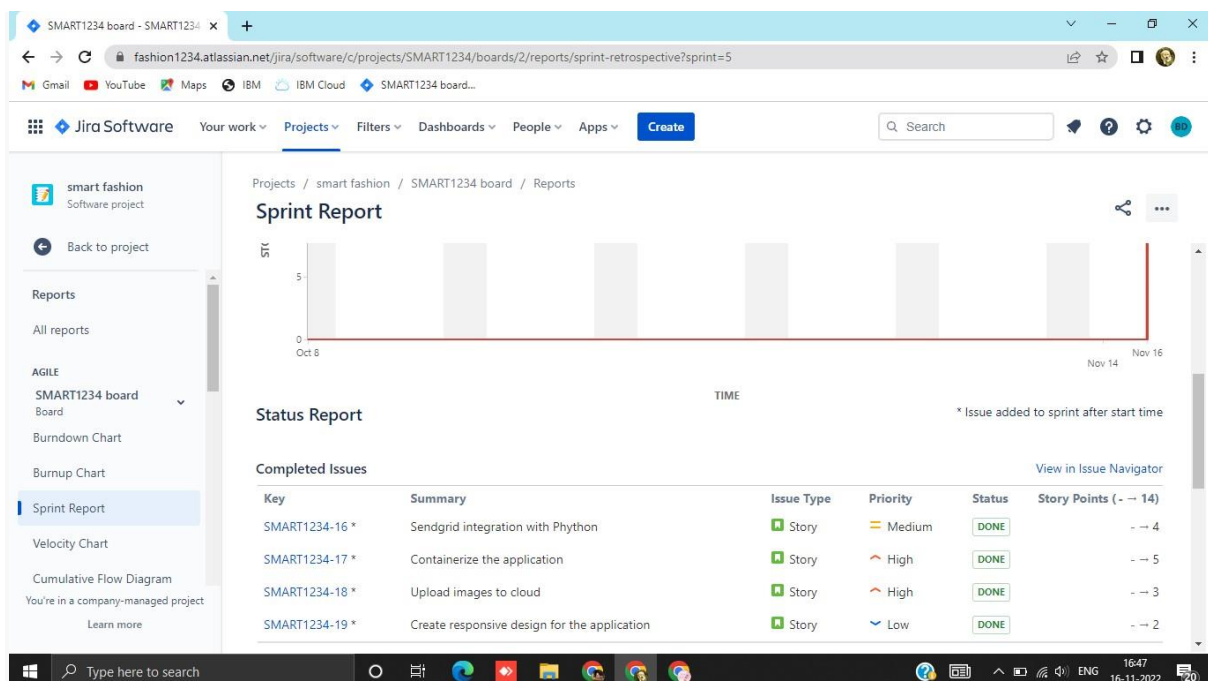
Fig 6.5) Sprint 4 Report

7. CODING & SOLUTIONING
7.1 Feature 1

Home page:

```html
<!DOCTYPE html>
<html>
<title>Trendy Fashion</title>
<link rel="icon" type="image/x-icon" href="images/download.jpg"> <meta
charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1">
<link rel="stylesheet" href="https://www.w3schools.com/w3css/4/w3.css">
<link rel="stylesheet" href="https://fonts.googleapis.com/css?family=Raleway">
<link rel="stylesheet"
href="https://cdnjs.cloudflare.com/ajax/libs/fontawesome/4.7.0/css/font-
awesome.min.css">
<link rel="stylesheet"
href="https://cdn.jsdelivr.net/npm/bootstrap@4.6.2/dist/css/bootstrap.min.css"
integrity="sha384xOolHFLEh07PJGoPkLv1IbcEPTNtaed2xpHsD9ESMhqIYd0nLMwNLD69Npy4H
I+N" crossorigin="anonymous">

<style>    body,    h1,    h2,    h3,
h4,   h5,    h6 {      font-family:
"Raleway", sans-serif
   }    body,    html {
height: 100%;
line-height: 1.8;
   }

  /* Full height image header */
  .bgimg-1 {      background-
position: center;      background-
size: cover;
    background-image: url("images/clothing-line.jpg");      min-
height: 100%;
   }

  .w3-bar .w3-button {
```

```html
    padding: 16px;
  }
</style>

<body>

  <!-- Navbar (sit on top) -->
  <div class="w3-top">
    <div class="w3-bar w3-white w3-card" id="myNavbar">
      <a href="#home" class="w3-bar-item w3-button w3-wide">LOGO</a>
      <!-- Right-sided navbar links -->
      <div class="w3-right w3-hide-small">
        <a href="#about" class="w3-bar-item w3-button">ABOUT</a>
<a href="#team" class="w3-bar-item w3-button"><i class="fa
fauser"></i> TEAM</a>
        <a href="#work" class="w3-bar-item w3-button"><i class="fa fa-th"></i>
WORK</a>
        <a href="#contact" class="w3-bar-item w3-button"><i class="fa
faenvelope"></i> CONTACT</a>
        <a href="login.html" class="w3-bar-item w3-button"><i class="fa
fasign-out" aria-hidden="true"></i> LOGOUT</a>

      </div>
      <!-- Hide right-floated links on small screens and replace them with a
menu icon -->

      <a href="javascript:void(0)" class="w3-bar-item w3-button w3-right
w3hide-large w3-hide-medium"      onclick="w3_open()">
        <i class="fa fa-bars"></i>
      </a>
    </div>
  </div>

  <!-- Sidebar on small screens when clicking the menu icon -->
  <nav class="w3-sidebar w3-bar-block w3-black w3-card w3-animate-left
w3hide-medium w3-hide-large"     style="display:none" id="mySidebar">
    <a href="javascript:void(0)" onclick="w3_close()" class="w3-bar-item
w3button w3-large w3-padding-16">Close ×</a>
    <a href="#about" onclick="w3_close()" class="w3-bar-item
w3button">ABOUT</a>
    <a href="#team" onclick="w3_close()" class="w3-bar-item
w3button">TEAM</a>
    <a href="#work" onclick="w3_close()" class="w3-bar-item
w3button">WORK</a>
    <a href="#contact" onclick="w3_close()" class="w3-bar-item
w3button">CONTACT</a>
```

```
</nav>
```

```html
  <!-- Header with full-height image -->
  <header class="bgimg-1 w3-display-container w3-grayscale-min" id="home">
    <div class="w3-display-left w3-text-white" style="padding:48px">
<span class="w3-jumbo w3-hide-small">Start something that
matters</span><br>
      <span class="w3-xxlarge w3-hide-large w3-hide-medium">Start something
that matters</span><br>
      <span class="w3-large">Stop wasting valuable time with projects that
just isn't you.</span>        <p><a href="#about"          class="w3-
button w3-white w3-padding-large w3-large w3-margin-top w3-opacity w3-
hover-opacity-off">Learn more           and start today</a></p>
    </div>
    <div class="w3-display-bottomleft w3-text-grey w3-large"
style="padding:24px 48px">
      <i class="fa fa-facebook-official w3-hover-opacity"></i>
      <i class="fa fa-instagram w3-hover-opacity"></i>
      <i class="fa fa-snapchat w3-hover-opacity"></i>
      <i class="fa fa-pinterest-p w3-hover-opacity"></i>
      <i class="fa fa-twitter w3-hover-opacity"></i>
      <i class="fa fa-linkedin w3-hover-opacity"></i>
    </div>
  </header>

  <!-- About Section -->
  <div class="w3-container" style="padding:128px 16px" id="about">
    <h3 class="w3-center">ABOUT THE COMPANY</h3>
    <p class="w3-center w3-large">Key features of our company</p>
    <div class="w3-row-padding w3-center" style="margin-top:64px">
<div class="w3-quarter">
        <i class="fa fa-desktop w3-margin-bottom w3-jumbo w3-center"></i>
        <p class="w3-large">Responsive</p>
        <p>"When we ground ourselves in the present moment, we spontaneously
connect better with others."</p>
      </div>
      <div class="w3-quarter">
        <i class="fa fa-heart w3-margin-bottom w3-jumbo"></i>
        <p class="w3-large">Passion</p>
        <p>"Believe in your heart that you're meant to live a life full of
passion, purpose, magic and miracles."</p>
      </div>
      <div class="w3-quarter">
        <i class="fa fa-diamond w3-margin-bottom w3-jumbo"></i>
```

```html
<p class="w3-large">Design</p> <p>"Design creates culture. Culture
shapes values. Values determine
```

```html
the future."</p>
      </div>
      <div class="w3-quarter">
        <i class="fa fa-cog w3-margin-bottom w3-jumbo"></i>
        <p class="w3-large">Support</p>
        <p>"There's a fine line between support and stalking and let's all
stay on the right side of that."</p>
      </div>
    </div>
  </div>

  <!-- Promo Section - "We know design" -->
  <div class="w3-container w3-light-grey" style="padding:128px 16px">
    <div class="w3-row-padding">
      <div class="w3-col m6">
        <h3>We know design.</h3>
        <p>"Make it simple, but significant."</p>
        <p><a href="#work" class="w3-button w3-black"><i class="fa fath">
</i> View Our Works</a></p>
      </div>
      <div class="w3-col m6">
        <img class="w3-image w3-round-large" src="images/clothing.jpg"
alt="Buildings" width="700" height="394">
      </div>
    </div>
  </div>

  <!-- Team Section -->
  <div class="w3-container" style="padding:128px 16px" id="team">
    <h3 class="w3-center">THE TEAM</h3>
    <p class="w3-center w3-large">The ones who runs this company</p>
    <div class="w3-row-padding w3-grayscale" style="margin-top:64px">
      <div class="w3-col l3 m6 w3-margin-bottom">
        <div class="w3-card">
          <img src="images/team2.jpg" alt="John" style="width:100%">
          <div class="w3-container">
            <h3>John Doe</h3>
            <p class="w3-opacity">CEO & Founder</p>
            <p>Manages and directs the company toward its primary goals
and objectives. Oversees employment decisions                 at the
executive level of the company. Leads a team of executives to consider
major decisions including                  acquisitions, mergers, joint
ventures, or large-scale expansion.</p>
```

```
<p><button class="w3-button w3-light-grey w3-block"><i class="fa
```

```
fa-envelope"></i> Contact</button></p>
        </div>
     </div>
```

```
    </div>
```

```html
    <div class="w3-col l3 m6 w3-margin-bottom">
      <div class="w3-card">
        <img src="Images/team1.jpg" alt="Jane" style="width:100%">
        <div class="w3-container">
          <h3>Anja Doe</h3>
          <p class="w3-opacity">Stylist</p>
          <p>Responsible for the visual style and images in
magazines, newspapers, product packaging.Inspire and guide
the vision             of the design team, oversee the work of
illustrators, graphic/visualdesigners, photographers, and others
who are             engaged in artwork or layout design.</p>
          <p><button class="w3-button w3-light-grey w3-block"><i class="fa
fa-envelope"></i> Contact</button></p>
        </div>
      </div>
    </div>
    <div class="w3-col l3 m6 w3-margin-bottom">
      <div class="w3-card">
        <img src="images/team3.jpg" alt="Mike" style="width:100%">
        <div class="w3-container">
          <h3>Mike Ross</h3>
          <p class="w3-opacity">Designer</p>
          <p>Plan, create and code internet sites and web pages, many of
which combine text with sounds, pictures,             graphics
and video clips.Responsible for creating the design and layout of a website
or web pages.
          It and can mean working on a brand new website or updating an
already existing site.</p>
          <p><button class="w3-button w3-light-grey w3-block"><i class="fa
fa-envelope"></i> Contact</button></p>
        </div>
      </div>
    </div>
    <div class="w3-col l3 m6 w3-margin-bottom">
      <div class="w3-card">
        <img src="images/team4.jpg" alt="Dan" style="width:100%">
        <div class="w3-container">
          <h3>Dan Star</h3>
          <p class="w3-opacity">Marketing Manager</p>
          <p>Conceptualize visuals based on requirements. Prepare rough
drafts and present ideas. Develop
```

illustrations, logos and other designs using software or by hand. Use the

```
appropriate colors and layouts for each
graphic.
              Work with copywriters and creative director to produce final
design.</p>
            <p><button class="w3-button w3-light-grey w3-block"><i class="fa
fa-envelope"></i> Contact</button></p>
          </div>
        </div>
      </div>
    </div>
  </div>

  <!-- Promo Section "Statistics" -->
  <div class="w3-container w3-row w3-center w3-dark-grey w3-padding-64">
    <div class="w3-quarter">
      <span class="w3-xxlarge">7+</span>
      <br>Partners
    </div>
    <div class="w3-quarter">
      <span class="w3-xxlarge">5K+</span>
      <br>Designers
    </div>
    <div class="w3-quarter">
      <span class="w3-xxlarge">10K+</span>
      <br>Happy Clients
    </div>
    <div class="w3-quarter">
      <span class="w3-xxlarge">150+</span>
      <br>Awards
    </div>
  </div>

  <!-- Work Section -->
  <div class="w3-container" style="padding:128px 16px" id="work">
    <h3 class="w3-center">OUR WORK</h3>
    <p class="w3-center w3-large">What we've done for people</p>
    <div style="margin-left: 40px;">

      <a href="view/view1.html">
        <img        src="https://fashionimages.s3.us-south.cloud-
objectstorage.appdomain.cloud/fashion1.jpg"
alt="womenfashion" srcset=""></a>
      <a href="view/view2.html">
```

```
<img src="https://fashionimages.s3.us-south.cloud-object-
```

```
storage.appdomain.cloud/fashion2.jpg"
alt="womenfashion" srcset=""></a>
```

```
<a href="view/view3.html">
```

```html
        <img src="https://fashionimages.s3.us-south.cloud-
objectstorage.appdomain.cloud/c1.jpg"
        alt="womenfashion"srcset=""></a>
     <a href="view/view4.html">
        <img              src="https://fashionimages.s3.us-south.cloud-
objectstorage.appdomain.cloud/fashion4.jpg"          alt="womenfashion"
srcset=""></a>
     <a href="view/view5.html">
        <img              src="https://fashionimages.s3.us-south.cloud-
objectstorage.appdomain.cloud/f1.jpg"              alt="womenfashion"
srcset=""></a>
     <a href="view/view6.html">
        <img src="https://fashionimages.s3.us-south.cloud-
objectstorage.appdomain.cloud/tr9.jpg"
alt="womenfashion"srcset=""></a>
     <a href="view/view7.html">
        <img src="https://fashionimages.s3.us-south.cloud-
objectstorage.appdomain.cloud/a1.jpg"
        alt="womenfashion"srcset=""></a>
   </div>

   <div class="list-group"style="text-align:center" >
     <a  class="list-group-item list-group-item-action"><h1>Find yourself more
in:</h1></a>
     <a href="category/womenformals.html" class="list-group-item list-groupitem-action
list-group-item-primary"><h1>Women formals</h1></a>
     <a href="category/menformals.html" class="list-group-item list-groupitem-action
list-group-item-secondary"><h1>Men formals</h1></a>
     <a href="category/kidsfashion.html" class="list-group-item list-groupitem-action
list-group-item-success"><h1>Kids fashion</h1></a>
     <a href="category/fashionsilks.html" class="list-group-item list-groupitem-action
list-group-item-danger"><h1>Fashion silks</h1></a>
     <a href="category/chappels.html" class="list-group-item list-group-itemaction
list-group-item-warning"><h1>Chappels</h1></a>
     <a href="category/bags.html" class="list-group-item list-group-itemaction
list-group-item-info"><h1>Bags</h1></a>
   </div>


   <script>         window.watsonAssistantChatOptions =
{
     integrationID: "271c9517-d9d6-417b-a76c-1d8578385dee", // The ID of this
integration.         region: "us-south", // The region your integration is hosted
in.
     serviceInstanceID: "20470815-619a-40f1-8c14-816220ff2257", // The ID of your
service instance.
     onLoad: function (instance) { instance.render(); }
```

```
    };        setTimeout(function () {        const t =
```

```html
document.createElement('script');          t.src =
"https://webchat.global.assistant.watson.appdomain.cloud/versions/"
+
(window.watsonAssistantChatOptions.clientVersion || 'latest') +
"/WatsonAssistantChatEntry.js";          document.head.appendChild(t);
      });
    </script>
  </div>

  <!-- Modal for full size images on click-->    <div
id="modal01" class="w3-modal w3-black"
onclick="this.style.display='none'">
    <span class="w3-button w3-xxlarge w3-black w3-padding-large w3-displaytopright"
title="Close Modal Image">×</span>
    <div class="w3-modal-content w3-animate-zoom w3-center w3-transparent w3padding-64">
      <img id="img01" class="w3-image">
      <p id="caption" class="w3-opacity w3-large"></p>
    </div>
  </div>

  <!-- Skills Section -->
  <div class="w3-container w3-light-grey w3-padding-64">
    <div class="w3-row-padding">
      <div class="w3-col m6">
        <h3>Our Skills.</h3>
        <p>Sketching designs <br>
          Selecting fabrics and embellishments and sourcing suppliers<br>
          Sewing and creating physical pieces<br>
          Hosting model fittings and making necessary alterations<br>
          Participating in fashion shows<br>
          Communicating with clients and the media<br>
          Marketing designs<br>
          Promoting designs to creative directors and merchandisers<br>
        </p>
      </div>
      <div class="w3-col m6">
        <p class="w3-wide"><i class="fa fa-camera w3-marginright"></i>Styling</p>
        <div class="w3-grey">
          <div class="w3-container w3-dark-grey w3-center" style="width:90%">90%</div>
        </div>
        <p class="w3-wide"><i class="fa fa-desktop w3-margin-
```

right"></i>Designing</p>   <div class="w3-grey">
```

```html
        <div class="w3-container w3-dark-grey w3-center"
style="width:85%">85%</div>
        </div>
        <p class="w3-wide"><i class="fa fa-photo w3-
marginright"></i>Marketing</p>
        <div class="w3-grey">
        <div class="w3-container w3-dark-grey w3-center"
style="width:75%">80%</div>
        </div>
      </div>
    </div>
  </div>


  <!-- Contact Section -->
  <div class="w3-container w3-light-grey" style="padding:128px 16px"
id="contact">
    <h3 class="w3-center">CONTACT</h3>
    <p class="w3-center w3-large">Lets get in touch. Send us a message:</p>
    <div style="margin-top:48px">
      <p><i class="fa fa-map-marker fa-fw w3-xxlarge w3-
marginright"></i>kaniyakumari, India.</p>
      <p><i class="fa fa-phone fa-fw w3-xxlarge w3-margin-right"></i> Phone:
+919876543210</p>
      <p><i class="fa fa-envelope fa-fw w3-xxlarge w3-margin-right"> </i>
Email: trendyfashion@gmail.com</p>
      <br>
      <form action="/action_page.php" target="_blank">
        <p><input class="w3-input w3-border" type="text" placeholder="Name"
required name="Name"></p>
        <p><input class="w3-input w3-border" type="text" placeholder="Email"
required name="Email"></p>
        <p><input class="w3-input w3-border" type="text" placeholder="Subject"
required name="Subject"></p>
        <p><input class="w3-input w3-border" type="text" placeholder="Message"
required name="Message"></p>
        <p>
        <button class="w3-button w3-black" type="submit" input type="reset">
<i class="fa fa-paper-plane"><a style="text-decoration: none;"
href="submit.html"> SEND MESSAGE </a></i>
        </button>
        </p>
      </form>
      <!-- Image of location/map -->
      <img src="images/map.jpg" class="w3-image w3-greyscale"
style="width:100%;margin-top:48px">
    </div>
```

```
    </div>
```

```html
  <!-- Footer -->
  <footer class="w3-center w3-black w3-padding-64">
    <a href="#home" class="w3-button w3-light-grey"><i class="fa fa-arrow-up
w3-margin-right"></i>To the top</a>
    <div class="w3-xlarge w3-section">
      <i class="fa fa-facebook-official w3-hover-opacity"></i>
      <i class="fa fa-instagram w3-hover-opacity"></i>
      <i class="fa fa-snapchat w3-hover-opacity"></i>
      <i class="fa fa-pinterest-p w3-hover-opacity"></i>
      <i class="fa fa-twitter w3-hover-opacity"></i>
      <i class="fa fa-linkedin w3-hover-opacity"></i>
    </div>
  </footer>

  <script>
    // Modal Image Gallery     function onClick(element) {
document.getElementById("img01").src = element.src;
document.getElementById("modal01").style.display = "block";
var captionText = document.getElementById("caption");
captionText.innerHTML = element.alt;
    }


    // Toggle between showing and hiding the sidebar when clicking the menu
icon     var mySidebar = document.getElementById("mySidebar");
    function w3_open() {        if
(mySidebar.style.display === 'block') {
mySidebar.style.display = 'none';
    } else {
       mySidebar.style.display = 'block';
}
    }

    // Close the sidebar with the close button
function            w3_close()              {
mySidebar.style.display = "none";
    }
  </script>

</body>
</html>
```

7.2 Feature 2

```html
<html>
<title>Casual Wears-trendyfashion.com</title>
<link rel="icon" type="image/x-icon" href="../images/download.jpg">
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1">
<link rel="stylesheet" href="https://www.w3schools.com/w3css/4/w3.css">
<link rel="stylesheet" href="https://fonts.googleapis.com/css?family=Raleway">
<link rel="stylesheet"
href="https://cdnjs.cloudflare.com/ajax/libs/fontawesome/4.7.0/css/font-
awesome.min.css">
<style>     body,     h1,     h2,     h3,
h4,     h5,     h6 {          font-family:
"Raleway", sans-serif
    }
    .checked {
color: orange;
}
</style>

<body class="w3-light-grey w3-content" style="max-width:1600px">
    <!-- Sidebar/menu -->
    <nav class="w3-sidebar w3-collapse w3-white w3-animate-left"
style="zindex:3;width:300px;" id="mySidebar"><br>
        <div class="w3-container">
            <a  href="#"  onclick="w3_close()"  class="w3-hide-large  w3-right
w3jumbo w3-padding w3-hover-grey"                    title="close menu">
                <i class="fa fa-remove"></i>
            </a>

            <h4><b>Trendy Fashion</b></h4>
            <p  class="w3-text-grey">!!!Explore   the   fashion   in   you!!!</p>
</div>
        <div class="w3-bar-block">
            <a href="../action_page.html" onclick="w3_close()" class="w3-
baritem w3-button w3-padding w3-text-teal"><i                    class="fa
fa-th-large fa-fw w3-margin-right"></i>Home</a>
```

```
<a href="#contact" class="w3-bar-item w3-button w3-padding
```

```html
w3-text-teal"><i class="fa fa-th-large fa-fw w3-margin-right"></i> Product
Details</a>
        </div>
        <div class="w3-panel w3-large">
            <i class="fa fa-facebook-official w3-hover-opacity"></i>
            <i class="fa fa-instagram w3-hover-opacity"></i>
            <i class="fa fa-snapchat w3-hover-opacity"></i>
            <i class="fa fa-pinterest-p w3-hover-opacity"></i>
            <i class="fa fa-twitter w3-hover-opacity"></i>
            <i class="fa fa-linkedin w3-hover-opacity"></i>
        </div>
    </nav>

    <!-- Overlay effect when opening sidebar on small screens -->
<div class="w3-overlay w3-hide-large w3-animate-opacity"
onclick="w3_close()" style="cursor:pointer"
        title="close side menu" id="myOverlay"></div>

    <!-- !PAGE CONTENT! -->
    <div class="w3-main" style="margin-left:300px">
        <!-- Header -->
        <header id="home">

            <div class="w3-container">
                <h1><b>Casual Wears</a>
                    <!-- <i class="fa fa-shopping-cart"
style="fontsize:48px;color:rgb(8, 8, 8);padding-left: 850px;"></i> --
>
                </b></h1>
                <div class="row ">
                    <div class="col-md-12">
                        <img         style='float:left;width:200px;height:300px;
margin-right:10px;'
                        src="https://fashionimages.s3.us-south.cloud-
objectstorage.appdomain.cloud/fashion1.jpg"
alt="womenfashion" srcset="" >
                        <p class="font-weight-bolder" style="font-size:
200%;font-family:verdana; ">WhatIf casuals trench coat oufit
                        <p class="text-monospace"
style="color:#22a2d7;">16,480 ratings | 195 answered questions |
                        #1 Best Seller in Women's Formal Dresses</p>
                        <hr
style="height:2px;borderwidth:0;color:gray;background-color:gray">
                        <p style="color:rgb(168, 142,
142)">Price:<b style='font-size:20px; color:#cc3939;'>&#8377;
1699</b></p>                <p>Good Stretch,
Comfortable</p>
```

```
<p>A Solid Color,Long Length,Perfecyly Fit For All The
```

```
Occasions--Formal, Evening Prom, Vacation, etc.</p>
                          <button style="color:rgb(255, 255,
255);backgroundcolor: rgb(169, 169, 169);"type="button"
onclick="alert('Product added to cart')">Add to cart</button>
                          <button style="color:rgb(255, 255,
255);backgroundcolor: rgb(169, 169, 169);"type="button">Buy Now</button>
                          </div>
              </div>
        </header>
<br>
        <!-- First Photo Grid-->
        <div class="w3-row-padding">
            <div class="w3-third w3-container w3-margin-bottom">
                <img src="https://fashionimages.s3.us-south.cloud-
objectstorage.appdomain.cloud/wool%201.jpg" alt="Norway" style="width:60%"
class="w3-hover-opacity">
                <div class="w3-container w3-white">
                    <p class="font-weight-bolder" style="font-size:
150%;fontfamily:verdana; ">WhatIf casuals trnch coat oufit
<p class="text-monospace" style="color:#22a2d7;">16,300 ratings</p>
                        <p style="color:rgb(168, 142, 142)">Price:<b
style='font-size:20px; color:#cc3939;'>&#8377; 1589</b></p>
                </div>
            </div>
            <div class="w3-third w3-container w3-margin-bottom">
                <img src="https://fashionimages.s3.us-south.cloud-
objectstorage.appdomain.cloud/wool%202.jpg" alt="Norway" style="width:50%"
class="w3-hover-opacity">
                <div class="w3-container w3-white">
                    <p class="font-weight-bolder" style="font-size:
150%;fontfamily:verdana; ">WhatIf casuals trench coat oufit
<p class="text-monospace" style="color:#22a2d7;">16,320 ratings</p>
                        <p style="color:rgb(168, 142, 142)">Price:<b
style='font-size:20px; color:#cc3939;'>&#8377; 1549</b></p>
                </div>
            </div>
            <div class="w3-third w3-container">
                <img src="https://fashionimages.s3.us-south.cloud-
objectstorage.appdomain.cloud/wool%203.jpg" alt="Norway" style="width:60%"
class="w3-hover-opacity">
                <div class="w3-container w3-white">
                    <p class="font-weight-bolder" style="font-size:
150%;fontfamily:verdana; ">WhatIf casuals trench coat oufit
```

```html
            <p class="text-monospace"
style="color:#22a2d7;">16,000 ratings</p>
                        <p style="color:rgb(168, 142, 142)">Price:<b
style='font-size:20px; color:#cc3939;'>&#8377; 1290</b></p>
                </div>
            </div>
        </div>


        <!-- Second Photo Grid-->
        <div class="w3-row-padding">
            <div class="w3-third w3-container w3-margin-bottom">
<img src="https://fashionimages.s3.us-south.cloud-
objectstorage.appdomain.cloud/wool%204.jpg" alt="Norway" style="width:60%"
class="w3-hover-opacity">
                <div class="w3-container w3-white">
                    <p class="font-weight-bolder" style="font-size:
150%;fontfamily:verdana; ">WhatIf casuals trench coat oufit
<p class="text-monospace" style="color:#22a2d7;">16,980 ratings</p>
                        <p style="color:rgb(168, 142, 142)">Price:<b
style='font-size:20px; color:#cc3939;'>&#8377; 7499</b></p>
                </div>
            </div>
            <div class="w3-third w3-container w3-margin-bottom">
<img src="https://fashionimages.s3.us-south.cloud-
objectstorage.appdomain.cloud/wool%205.jpg" alt="Norway" style="width:60%"
class="w3-hover-opacity">
                <div class="w3-container w3-white">
                    <p class="font-weight-bolder" style="font-size:
150%;fontfamily:verdana; ">WhatIf casuals trench coat oufit
<p class="text-monospace" style="color:#22a2d7;">18,700 ratings</p>
                        <p style="color:rgb(168, 142, 142)">Price:<b
style='font-size:20px; color:#cc3939;'>&#8377; 9799</b></p>
                </div>
            </div>
            <div class="w3-third w3-container">
                <img src="https://fashionimages.s3.us-south.cloud-
objectstorage.appdomain.cloud/wool%206.jpg" alt="Norway" style="width:60%"
class="w3-hover-opacity">
                <div class="w3-container w3-white">
                    <p class="font-weight-bolder" style="font-size:
150%;fontfamily:verdana; ">WhatIf casuals trench coat oufit
<p class="text-monospace" style="color:#22a2d7;">16,608 ratings</p>
                        <p style="color:rgb(168, 142, 142)">Price:<b
style='font-size:20px; color:#cc3939;'>&#8377; 5899</b></p>
```

```html
                </div>
            </div>
        </div>
    <!-- Pagination -->

        <hr style="height:2px;border-width:0;color:gray;backgroundcolor:gray">
</hr>

        <div  class="w3-container">
            <div class="w3-bar">
                <a href="../casuals/casual.html" style="text-decoration:
none;font-size: medium;color: blue;padding: 350px;">
                    Click here for more casual wears </a>

            </div>
        </div>

        <hr style="height:2px;border-width:0;color:gray;backgroundcolor:gray">
</hr>

        <h4><b>Top Reviews</h4>

        <!-- Pricing Tables -->
        <div class="w3-row-padding" style="margin:0 -16px">
            <div class="w3-third w3-margin-bottom">
                <ul class="w3-ul w3-border w3-white w3-center w3-opacity
w3-hover-opacity-off">

                    <li class="w3-black w3-xlarge w3-padding-32" > <span
class="fa fa-star checked"></span>
                        <span class="fa fa-star checked"></span>
                        <span class="fa fa-star checked"></span>
                        <span class="fa fa-star"></span>
                        <span class="fa fa-star"></span>Amazing Dress
</li>
                    <li class="w3-padding-16">The dress is soft and warm.
The turtle neck doesn't make me feel choked like other turtle
necks do, this one is more slouchy. The light pink color is a bit more "peach-
y" than I expected,
                        (I was picturing more of a dusty rose color) but
that isn't a problem for me. Loved it so much I
                        immediately ordered another in grey....still
considering getting more colors </li>
```

```
                    <li class="w3-light-grey w3-padding-24">
                        <button class="w3-button w3-teal w3-padding-large
w3-hover-black">Helpful</button>
                    </li>
                </ul>
            </div>
            <div class="w3-third w3-margin-bottom">
```

```
                        <ul class="w3-ul w3-border w3-white w3-center w3-opacity
w3-hover-opacity-off">
                            <li class="w3-black w3-xlarge w3-padding-32" > <span
class="fa fa-star checked"></span>
                                <span class="fa fa-star checked"></span>
                                <span class="fa fa-star checked"></span>
                                <span class="fa fa-star checked"></span>
                                <span class="fa fa-star"></span>Fantastic and cute
 </li>
                            <li class="w3-padding-16">Very pleased when I
received this coat. I am 5'4, 36D, waist 29.5 and hippy at 40. I definitely
wanted a flare or swing coat for the feminine look it gives and for comfort.
I ordered a large which is big especially                           around
the waist but I wanted enough room to layer up if I needed extra warmth for
those extremely ice cold winters.
                                The Coat has good weight to it, nicely tailored
, wool blend and very soft.  </li>
                            <li class="w3-light-grey w3-padding-24">
                                <button class="w3-button w3-teal w3-padding-large
w3-hover-black">Helpful</button>
                                </li>
                        </ul>
                    </div>

                    <div class="w3-third">
                        <ul class="w3-ul w3-border w3-white w3-center w3-opacity
w3-hover-opacity-off">
                            <li class="w3-black w3-xlarge w3-padding-32" > <span
class="fa fa-star checked"></span>
                                <span class="fa fa-star checked"></span>
                                <span class="fa fa-star checked"></span>
                                <span class="fa fa-star checked"></span>
                                <span class="fa fa-star checked"></span>Awesome
Product</li>
                            <li class="w3-padding-16"> I need snow gear for
hiking, snow shoeing, just living in the mountains 😂 As a tall, plus
sized woman Columbia really delivers. The arms are long enough the cuts are
flattering and this long coat has room                            in the
hips. Amazing! I truly love Columbia's fit.The sweater was chunky just like
I was hoping and even a little bit                          long (past
my butt), which I like. The sweater is snuggly soft too. </li>
                            <li class="w3-light-grey w3-padding-24">
                                <button class="w3-button w3-teal w3-padding-large
w3-hover-black">Helpful</button>
```

```html
        </li>
```

```html
            </ul>
          </div>
        </div>
      </div>


      <!-- Contact Section -->
      <div class="w3-container w3-padding-large w3-
grey"style="marginleft:300px" id="contact">
          <h3>Product details</h3>
          <p>Is Discontinued By Manufacturer : No</p>
          <p>Package Dimensions : 13.07 x 10.55 x 2.13 inches; 1.12 Pounds</p>
          <p>Item model number : WS63161-1</p>
          <p> Department : womens</p>
          <p>Date First Available : September 17, 2022</p>
          <p>ASIN : B07HFSQBX8</p>
          <p>Best Sellers Rank: #372 in Clothing, Shoes & Jewelry (See Top
100 in Clothing, Shoes & Jewelry)</p>
          <p>#1 in Women's Formal Dresses</p>
          <p>Customer Reviews: 4.4 out of 5 stars    16,480 ratings</p>


      </div>


      <!-- Footer -->
      <footer class="w3-center w3-black w3-padding-64">
          <a href="#home" class="w3-button w3-light-grey"><i class="fa
faarrow-up w3-margin-right"></i>To the top</a>
          <div class="w3-xlarge w3-section">
              <i class="fa fa-facebook-official w3-hover-opacity"></i>
              <i class="fa fa-instagram w3-hover-opacity"></i>
              <i class="fa fa-snapchat w3-hover-opacity"></i>
              <i class="fa fa-pinterest-p w3-hover-opacity"></i>
              <i class="fa fa-twitter w3-hover-opacity"></i>
              <i class="fa fa-linkedin w3-hover-opacity"></i>
          </div>
      </footer>
      <script>
          // Script to open and close sidebar            function
w3_open() {
document.getElementById("mySidebar").style.display = "block";
document.getElementById("myOverlay").style.display = "block";            }
          function w3_close() {
document.getElementById("mySidebar").style.display = "none";
document.getElementById("myOverlay").style.display = "none";
          }
      </script>
```

```
</body>
</html>
```

8. TESTING

8.1 Test Cases

A test case is a set of actions performed on a system to determine if it satisfies software requirements and functions correctly. The purpose of a test case is to determine if different features within a system are performing as expected and to confirm that the system satisfies all related standards, guidelines and customer requirements. The process of writing a test case can also help reveal errors or defects within the system.

Test cases are typically written by members of the quality assurance (QA) team or the testing team and can be used as step-by-step instructions for each system test. Testing begins once the development team has finished a system feature or set of features. A sequence or collection of test cases is called a test suite.

A test case document includes test steps, test data, preconditions and the post conditions that verify requirements.

Why test cases are important:

Test cases define what must be done to test a system, including the steps executed in the system, the input data values that are entered into the system and the results that are expected throughout test case execution. Using test cases allows developers and testers to discover errors that may have occurred during development or defects that were missed during ad hoc tests.

The benefits of an effective test case include:
- Guaranteed good test coverage.
- Reduced maintenance and software support costs.
- Reusable test cases.
- Confirmation that the software satisfies end-user requirements.
- Improved quality of software and user experience.
- Higher quality products lead to more satisfied customers. ☐ More satisfied customers will increase company profits.

Overall, writing and using test cases will lead to business optimization. Clients are more satisfied, customer retention increases, the costs of customer service and fixing products decreases, and more reliable products are produced, which improves the company's reputation and brand image.

8.2 User Acceptance Testing

User acceptance testing (UAT), also called application testing or end-user testing, is a phase of software development in which the software is tested in the real world by its intended audience.

User Acceptance Testing (UAT) is a type of testing performed by the end user or the client to verify/accept the software system before moving the software application to the production environment. UAT is done in the final phase of testing after functional, integration and system testing is done.
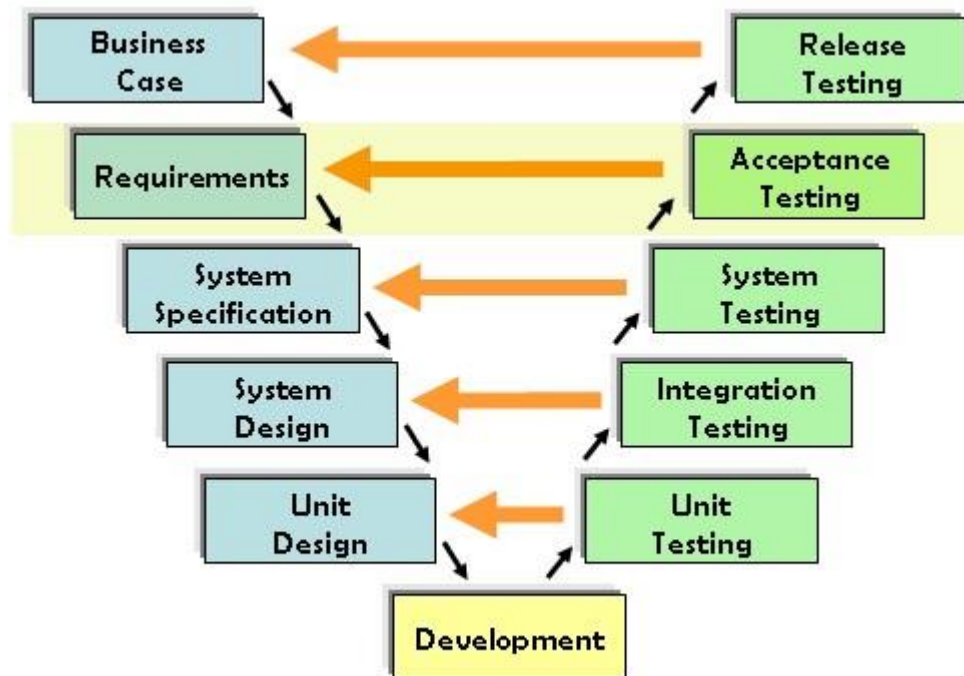
Fig 7.1) Testing architecture

UAT testing meaning can also be defined as the user methodology where the developed software is tested by the business user to validate if the software is working as per the specifications defined. This type of testing is also known as beta testing, application testing, or more commonly end-user testing. The main **Purpose of UAT** is to validate end to end business flow. It does not focus on cosmetic errors, spelling mistakes or system testing. User Acceptance Testing is carried out in a separate testing environment with production-like data setup. It is kind of black box testing where two or more end-users will be involved.

UAT is performed by:
* Client
* End users

Need of User Acceptance Testing:

Need of User Acceptance Testing arises once software has undergone Unit, Integration and System testing because developers might have built software based on requirements document by their own understanding and further required changes during

66

development may not be effectively communicated to them, so for testing whether the final product is accepted by client/end-user, user acceptance testing is needed.
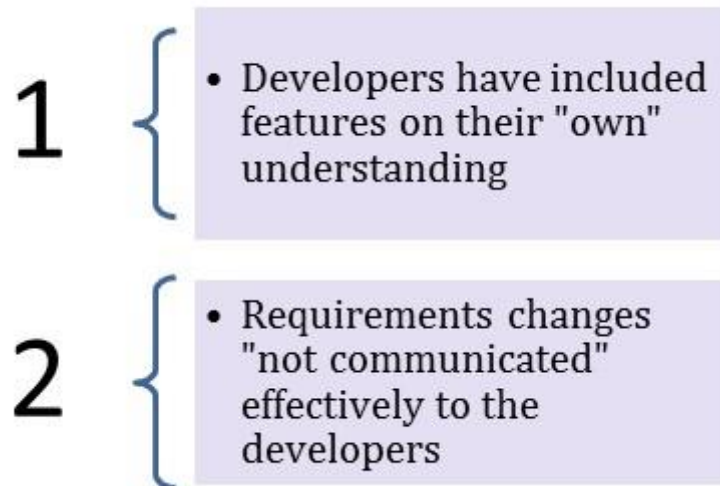
- Developers code software based on requirements document which is their "own" understanding of the requirements and **may not actually be what the client needs from the software**.
- Requirements changes during the course of the project may not be communicated effectively to the developers.

Prerequisites of User Acceptance Testing:

Following are the entry criteria for User Acceptance Testing:

- Business Requirements must be available.
- Application Code should be fully developed
- Unit Testing, Integration Testing & System Testing should be completed
- No Showstoppers, High, Medium defects in System Integration Test Phase –
- Only Cosmetic error is acceptable before UAT
- Regression Testing should be completed with no major defects
- All the reported defects should be fixed and tested before UAT
- Traceability matrix for all testing should be completed
- UAT Environment must be ready
- Sign off mail or communication from System Testing Team that the system is ready for UAT execution.

9. RESULTS:
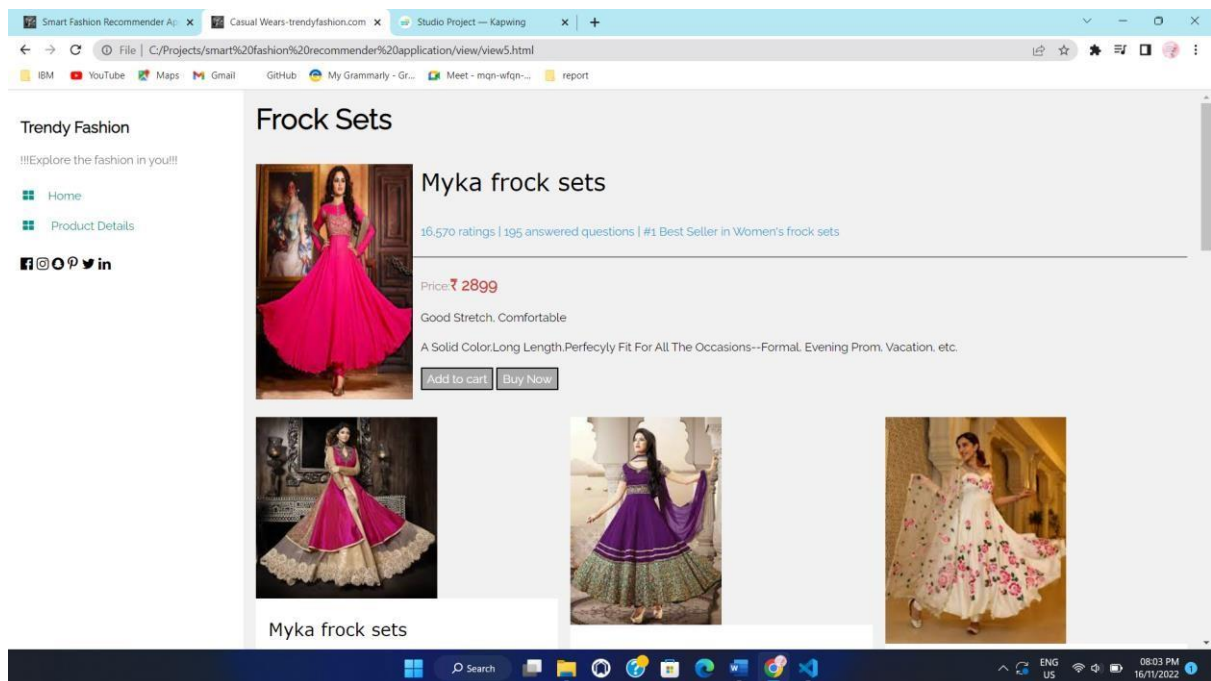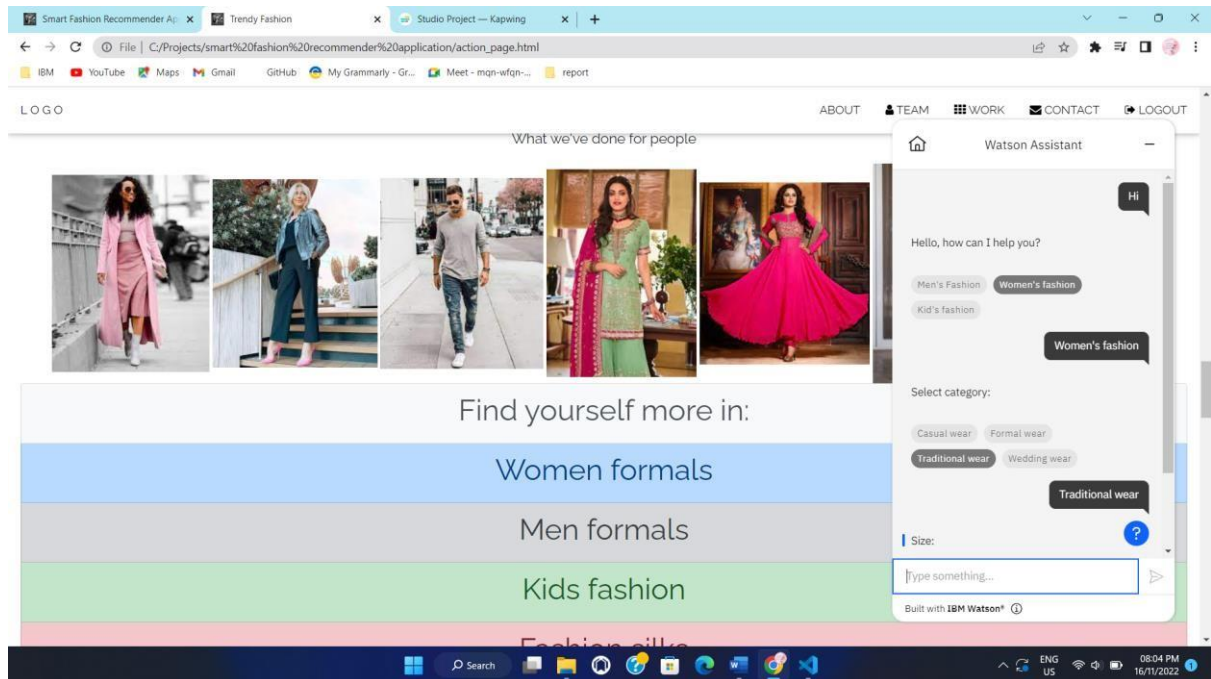
9.1. Performance metrics:

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 can be as represented as follows:

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

Where N_p is the total number of predictions, p_{ui} is the predicted rating that a user u will select 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=True Positive (TP)/True Positive(TP)+False Positive (FP)

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=True Positive (TP) / True Positive(TP)+False Negative (FN)

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

F1 score=2×Precision∗Recall / Precision+Recalls

Coverage. Coverage is used to measure the percentage of items that 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=TP+FN / TP+FN+TN+FP

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

IoU=TP / TP+FN+FP

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

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

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. Mean reciprocal rank (MRR), mean average precision (MAP), and normalized discounted cumulative gain (NDCG) are the three most popular rank-aware metrics.

10. ADVANTAGES AND DISADVANTAGES:

ADVANTAGES:

1) Easy recommendations make fewere searches and sometimes end up in good deals
2) User reviews will give accurate information, this is also an advantage if we purchase online as we can see other reviews too, most of the time honest

3) Speed up the process of decision and purchase based on the previous statistics

4) A recommendation engine can bring traffic to were sites. It accomplishes this with customized email messages and target blasts.

DISADVANTAGES:

1)   If the system recommends products with bias, then the customer will be landing on the wrong deals
2)   Chances are that some websites may suggest products wrongly based on analysis of little information gathered
3)   Since the feature representations of the items are hand-engineered to some extent, this technique requires a lot of domain knowledge. Therefore, the model can only be as good as the hand-engineered features.
4)   The model can only make recommendations based on the existing interests of the user. In other words, the model has limited ability to expand on the users' existing interests.

Conclusion:

Recent advancements in cloud computing helping ease the fashion industry' s transition from customer stores into modern online shops equipped with high-tech features such as virtual try-on and fashionsynthesis systems. This article sheds some light on different applications related to these systems,tracked the research progressthrough the years, and illustrated the field's rapid growth. Althoughscientists have achieved significant milestones, still many unsolved matters remain. One main issue isthe systems' performance compared to human abilities; another important factor is the applicability ofmethods regarding computational effort and energy efficiency.

Another critical problem is the definitionof a well-structured and uniform objective metric to assess the results.

12.FUTURE SCOPE:

13.APPENDIX

Source Code
 Main.html

```html
<!DOCTYPE html>
<html lang="en">
<head>
<title>Smart Fashion Recommender Application</title>
<link rel="icon" type="image/x-icon" href="images/download.jpg">
<meta charset="UTF-8">
```

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

```css
<style> * {    box-
sizing: border-box;
}

/* Style the body */ body {    font-family:
Arial, Helvetica, sans-serif;    margin: 0;

}

/* Header/logo Title */
.header {    padding: 290px;    text-align: center;    color: rgb(0, 0,
0);    margin-top: -90px;    background-image:
url("https://fashionimages.s3.us-south.cloud-
objectstorage.appdomain.cloud/clothing.jpg");
}

/* Increase the font size of the heading */
.header h1 {    font-
size: 40px;
}

.header p{
font-size: 20px;
}
/* Style the top navigation bar */
.navbar {    overflow:
hidden;    background-
color: #333;
}

/* Style the navigation bar links */
.navbar a {    float:
left;    display: block;
color: white;    text-
align: center;
padding: 14px 20px;
text-decoration: none;
}

/* Right-aligned link */
.navbar a.right {
```

```css
    float: right;
}

/* Change color on hover */
.navbar a:hover {    background-
color: #ddd;    color: black;
}

/* Column container */
.row {      display: -ms-flexbox;
/* IE10 */    display: flex;
  -ms-flex-wrap: wrap; /* IE10 */    flex-
wrap: wrap;
}

/* Create two unequal columns that sits next to each other */
/* Sidebar/left column */
.side {
  -ms-flex: 30%; /* IE10 */
flex: 30%;    background-color:
#f1f1f1;    padding: 20px;
}

/* Main column */
.main {
  -ms-flex: 70%; /* IE10 */
flex: 70%;    background-color:
white;    padding: 20px;
}

/* Fake image, just for this example */
.fakeimg {    background-
color: #aaa;    width:
100%;    padding: 20px;
}

/* Footer */

/* Responsive layout - when the screen is less than 700px wide, make the two
columns stack on top of each other instead of next to each other */
@media screen and (max-width: 700px) {
  .row {         flex-
direction: column;
```

```
  }
}

/* Responsive layout - when the screen is less than 400px wide, make the
navigation links stack on top of each other instead of next to each other */
@media screen and (max-width: 400px) {
  .navbar a {
float: none;
width: 100%;
  }
}
</style>
</head>
<body>

<div class="header">
  <h1>SMART FASHION RECOMMENDER APPLICATION</h1>
  <p>Created By:</p>
  <p>Babis Dania T</p>
  <p>Ajisha J</p>
  <p>Amishya Renjai R J</p>
  <p>Aspiya S</p>
</div>




</body>
</html>
```

Signup.html

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <title>Sign Up</title>
    <link rel="icon" type="image/x-icon" href="images/download.jpg">
    <link rel="stylesheet" href="style.css" />
    <link
href="https://fonts.googleapis.com/css2?family=Roboto:wght@300&display=swap"
rel="stylesheet"
    />
  </head>
  <body>
    <div class="signup-box">
      <h1>Sign Up</h1>
      <form action="login.html">
        <label>First Name</label>
        <input type="text" placeholder="" />


        <label>Last Name</label>
        <input type="text" placeholder="" />
        <label>Email</label>
        <input type="email" placeholder="" />
        <label>Password</label>
        <input type="password" placeholder="" />
<label>Confirm Password</label>
        <input type="password" placeholder="" />
        <input type="submit" value="Submit" />
      </form>
      <p>
        By clicking the Sign Up button,you agree to our <br />
<a href="terms.html">Terms and Condition</a> and <a
href="privacy.html">Policy Privacy</a>
      </p>
    </div>
    <p class="para-2">
      Already have an account? <a href="login.html">Login here</a>
    </p>
  </body>
</html>
```

Login.html

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <title>Login</title>
    <link rel="icon" type="image/x-icon" href="images/download.jpg">
    <link rel="stylesheet" href="style.css" />
    <link
href="https://fonts.googleapis.com/css2?family=Roboto:wght@300&display=swap"
rel="stylesheet"
    />
  </head>
  <body>
    <div class="login-box" style="margin-top:175px ;">
<h1>Login</h1>
      <form  action="action_page.html">
        <label>Email</label>
        <input type="email" placeholder="" />
        <label>Password</label>
        <input type="password" placeholder="" />
        <input type="submit" value="Submit" />
      </form>
    </div>
```

```
    <p class="para-2">
        Not have an account? <a href="signup.html">Sign Up Here</a>
    </p>
  </body>
</html>
```

Home page

```html
<!DOCTYPE html>
<html>
<title>Trendy Fashion</title>
<link rel="icon" type="image/x-icon" href="images/download.jpg"> <meta
charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1">
<link rel="stylesheet" href="https://www.w3schools.com/w3css/4/w3.css">
<link rel="stylesheet" href="https://fonts.googleapis.com/css?family=Raleway">
<link rel="stylesheet"
href="https://cdnjs.cloudflare.com/ajax/libs/fontawesome/4.7.0/css/font-
awesome.min.css">
<link rel="stylesheet"
href="https://cdn.jsdelivr.net/npm/bootstrap@4.6.2/dist/css/bootstrap.min.css"
integrity="sha384xOolHFLEh07PJGoPkLv1IbcEPTNtaed2xpHsD9ESMhqIYd0nLMwNLD69Npy4H
I+N" crossorigin="anonymous">

<style>    body,    h1,    h2,    h3,
h4,    h5,    h6 {        font-family:
"Raleway", sans-serif
    }    body,    html {
height: 100%;
line-height: 1.8;
    }


    /* Full height image header */
    .bgimg-1 {        background-position: center;
background-size: cover;        background-image:
url("images/clothing-line.jpg");        min-height: 100%;
```

```html
    }

    .w3-bar .w3-button {
padding: 16px;
    }
</style>

<body>

    <!-- Navbar (sit on top) -->
    <div class="w3-top">
      <div class="w3-bar w3-white w3-card" id="myNavbar">
        <a href="#home" class="w3-bar-item w3-button w3-wide">LOGO</a>
        <!-- Right-sided navbar links -->
        <div class="w3-right w3-hide-small">
          <a href="#about" class="w3-bar-item w3-button">ABOUT</a>
<a href="#team" class="w3-bar-item w3-button"><i class="fa
fauser"></i> TEAM</a>
          <a href="#work" class="w3-bar-item w3-button"><i class="fa fa-th"></i>
WORK</a>
          <a href="#contact" class="w3-bar-item w3-button"><i class="fa
faenvelope"></i> CONTACT</a>
          <a href="login.html" class="w3-bar-item w3-button"><i class="fa
fasign-out" aria-hidden="true"></i> LOGOUT</a>

        </div>
        <!-- Hide right-floated links on small screens and replace them with a
menu icon -->

        <a href="javascript:void(0)" class="w3-bar-item w3-button w3-right
w3hide-large w3-hide-medium"          onclick="w3_open()">
          <i class="fa fa-bars"></i>
        </a>
      </div>
    </div>

    <!-- Sidebar on small screens when clicking the menu icon -->
    <nav class="w3-sidebar w3-bar-block w3-black w3-card w3-animate-left
w3hide-medium w3-hide-large"
      style="display:none" id="mySidebar">
      <a href="javascript:void(0)" onclick="w3_close()" class="w3-bar-item
w3button w3-large w3-padding-16">Close ×</a>
      <a href="#about" onclick="w3_close()" class="w3-bar-item
w3button">ABOUT</a>
      <a href="#team" onclick="w3_close()" class="w3-bar-item
w3button">TEAM</a>
```

```
<a href="#work" onclick="w3_close()" class="w3-bar-item w3-
```

```
button">WORK</a>
    <a href="#contact" onclick="w3_close()" class="w3-bar-item
w3button">CONTACT</a>
  </nav>

  <!-- Header with full-height image -->
  <header class="bgimg-1 w3-display-container w3-grayscale-min" id="home">
    <div class="w3-display-left w3-text-white" style="padding:48px">
<span class="w3-jumbo w3-hide-small">Start something that
matters</span><br>
      <span class="w3-xxlarge w3-hide-large w3-hide-medium">Start something
that matters</span><br>
      <span class="w3-large">Stop wasting valuable time with projects that
just isn't you.</span>        <p><a href="#about"          class="w3-
button w3-white w3-padding-large w3-large w3-margin-top w3-opacity w3-
hover-opacity-off">Learn more          and start today</a></p>
    </div>
    <div class="w3-display-bottomleft w3-text-grey w3-large"
style="padding:24px 48px">
      <i class="fa fa-facebook-official w3-hover-opacity"></i>
      <i class="fa fa-instagram w3-hover-opacity"></i>
      <i class="fa fa-snapchat w3-hover-opacity"></i>
      <i class="fa fa-pinterest-p w3-hover-opacity"></i>
      <i class="fa fa-twitter w3-hover-opacity"></i>
      <i class="fa fa-linkedin w3-hover-opacity"></i>
    </div>
  </header>

  <!-- About Section -->
  <div class="w3-container" style="padding:128px 16px" id="about">
    <h3 class="w3-center">ABOUT THE COMPANY</h3>
    <p class="w3-center w3-large">Key features of our company</p>
    <div class="w3-row-padding w3-center" style="margin-top:64px">
      <div class="w3-quarter">
        <i class="fa fa-desktop w3-margin-bottom w3-jumbo w3-center"></i>
        <p class="w3-large">Responsive</p>
        <p>"When we ground ourselves in the present moment, we spontaneously
connect better with others."</p>
      </div>
      <div class="w3-quarter">
        <i class="fa fa-heart w3-margin-bottom w3-jumbo"></i>
        <p class="w3-large">Passion</p>
        <p>"Believe in your heart that you're meant to live a life full of
passion, purpose, magic and miracles."</p>
      </div>
```

```html
    <div class="w3-quarter">
      <i class="fa fa-diamond w3-margin-bottom w3-jumbo"></i>
      <p class="w3-large">Design</p>
      <p>"Design creates culture. Culture shapes values. Values determine
the future."</p>
    </div>
    <div class="w3-quarter">
      <i class="fa fa-cog w3-margin-bottom w3-jumbo"></i>
      <p class="w3-large">Support</p>
      <p>"There's a fine line between support and stalking and let's all
stay on the right side of that."</p>
    </div>
  </div>
</div>

<!-- Promo Section - "We know design" -->
<div class="w3-container w3-light-grey" style="padding:128px 16px">
  <div class="w3-row-padding">
    <div class="w3-col m6">
      <h3>We know design.</h3>
      <p>"Make it simple, but significant."</p>
      <p><a href="#work" class="w3-button w3-black"><i class="fa fath">
</i> View Our Works</a></p>
    </div>
    <div class="w3-col m6">
      <img class="w3-image w3-round-large" src="images/clothing.jpg"
alt="Buildings" width="700" height="394">
    </div>
  </div>
</div>

<!-- Team Section -->
<div class="w3-container" style="padding:128px 16px" id="team">
  <h3 class="w3-center">THE TEAM</h3>
  <p class="w3-center w3-large">The ones who runs this company</p>
  <div class="w3-row-padding w3-grayscale" style="margin-top:64px">
    <div class="w3-col l3 m6 w3-margin-bottom">
      <div class="w3-card">
        <img src="images/team2.jpg" alt="John" style="width:100%">
        <div class="w3-container">
          <h3>John Doe</h3>
          <p class="w3-opacity">CEO & Founder</p>
          <p>Manages and directs the company toward its primary goals and
objectives. Oversees employment decisions                 at the executive
level of the company. Leads a team of executives to consider major decisions
```

including   acquisitions, mergers, joint ventures, or large-scale
expansion.</p>
          <p><button class="w3-button w3-light-grey w3-block"><i class="fa

```html
fa-envelope"></i> Contact</button></p>
          </div>
        </div>
      </div>
      <div class="w3-col l3 m6 w3-margin-bottom">
        <div class="w3-card">
          <img src="Images/team1.jpg" alt="Jane" style="width:100%">
          <div class="w3-container">
            <h3>Anja Doe</h3>
            <p class="w3-opacity">Stylist</p>
            <p>Responsible for the visual style and images in
magazines, newspapers, product packaging.Inspire and guide
the vision                of the design team, oversee the work of
illustrators, graphic/visualdesigners, photographers, and others
who are                  engaged in artwork or layout design.</p>
            <p><button class="w3-button w3-light-grey w3-block"><i class="fa
fa-envelope"></i> Contact</button></p>
          </div>
        </div>
      </div>
      <div class="w3-col l3 m6 w3-margin-bottom">
        <div class="w3-card">
          <img src="images/team3.jpg" alt="Mike" style="width:100%">
          <div class="w3-container">
            <h3>Mike Ross</h3>
            <p class="w3-opacity">Designer</p>
            <p>Plan, create and code internet sites and web pages, many
of which combine text with sounds, pictures,                  graphics
          and video clips.Responsible for creating the design and layout
of a website or web pages.
          It and can mean working on a brand new website or updating an
already existing site.</p>
            <p><button class="w3-button w3-light-grey w3-block"><i class="fa
fa-envelope"></i> Contact</button></p>
          </div>
        </div>
      </div>
      <div class="w3-col l3 m6 w3-margin-bottom">
        <div class="w3-card">
          <img src="images/team4.jpg" alt="Dan" style="width:100%">
          <div class="w3-container">
            <h3>Dan Star</h3>
            <p class="w3-opacity">Marketing Manager</p>
```

```html
<p>Conceptualize visuals based on requirements. Prepare rough
```

```html
<p>Conceptualize visuals based on requirements. Prepare rough
```

```
drafts and present ideas. Develop                illustrations,
logos and other designs using software or by hand. Use the appropriate
colors and layouts for each               graphic.
           Work with copywriters and creative director to produce final
design.</p>
            <p><button class="w3-button w3-light-grey w3-block"><i class="fa
fa-envelope"></i> Contact</button></p>
          </div>
        </div>
      </div>
    </div>
  </div>

  <!-- Promo Section "Statistics" -->
  <div class="w3-container w3-row w3-center w3-dark-grey w3-padding-64">
    <div class="w3-quarter">
      <span class="w3-xxlarge">7+</span>
      <br>Partners
    </div>
    <div class="w3-quarter">
      <span class="w3-xxlarge">5K+</span>
      <br>Designers
    </div>
    <div class="w3-quarter">
      <span class="w3-xxlarge">10K+</span>
      <br>Happy Clients
    </div>
    <div class="w3-quarter">
      <span class="w3-xxlarge">150+</span>
      <br>Awards
    </div>
  </div>

  <!-- Work Section -->
  <div class="w3-container" style="padding:128px 16px" id="work">
    <h3 class="w3-center">OUR WORK</h3>
    <p class="w3-center w3-large">What we've done for people</p>
    <div style="margin-left: 40px;">


    <a href="view/view1.html">
      <img       src="https://fashionimages.s3.us-south.cloud-
objectstorage.appdomain.cloud/fashion1.jpg"
alt="womenfashion" srcset=""></a>
```

```
<a href="view/view2.html">
```

```
<img                          src="https://fashionimages.s3.us-south.cloud-
```

```html
objectstorage.appdomain.cloud/fashion2.jpg"              alt="womenfashion"
srcset=""></a>
      <a href="view/view3.html">
        <img src="https://fashionimages.s3.us-south.cloud-
objectstorage.appdomain.cloud/c1.jpg"
        alt="womenfashion"srcset=""></a>
      <a href="view/view4.html">
        <img                  src="https://fashionimages.s3.us-south.cloud-
objectstorage.appdomain.cloud/fashion4.jpg"              alt="womenfashion"
srcset=""></a>
      <a href="view/view5.html">
        <img                  src="https://fashionimages.s3.us-south.cloud-
objectstorage.appdomain.cloud/f1.jpg"                    alt="womenfashion"
srcset=""></a>
      <a href="view/view6.html">
        <img src="https://fashionimages.s3.us-south.cloud-
objectstorage.appdomain.cloud/tr9.jpg"
alt="womenfashion"srcset=""></a>
      <a href="view/view7.html">
        <img src="https://fashionimages.s3.us-south.cloud-
objectstorage.appdomain.cloud/a1.jpg"
        alt="womenfashion"srcset=""></a>
    </div>

    <div class="list-group"style="text-align:center" >
      <a  class="list-group-item list-group-item-action"><h1>Find yourself more
in:</h1></a>
      <a href="category/womenformals.html" class="list-group-item list-groupitem-action
list-group-item-primary"><h1>Women formals</h1></a>
      <a href="category/menformals.html" class="list-group-item list-groupitem-action
list-group-item-secondary"><h1>Men formals</h1></a>
      <a href="category/kidsfashion.html" class="list-group-item list-groupitem-action
list-group-item-success"><h1>Kids fashion</h1></a>
      <a href="category/fashionsilks.html" class="list-group-item list-groupitem-action
list-group-item-danger"><h1>Fashion silks</h1></a>
      <a href="category/chappels.html" class="list-group-item list-group-itemaction
list-group-item-warning"><h1>Chappels</h1></a>
      <a href="category/bags.html" class="list-group-item list-group-itemaction
list-group-item-info"><h1>Bags</h1></a>
    </div>

    <script>        window.watsonAssistantChatOptions = {          integrationID:
"271c9517-d9d6-417b-a76c-1d8578385dee", // The ID of this integration.
region: "us-south", // The region your integration is hosted in.
```

```
serviceInstanceID: "20470815-619a-40f1-8c14-816220ff2257", // The ID of your
```

```
service instance.
      onLoad: function (instance) { instance.render(); }
    };          setTimeout(function () {          const t =
document.createElement('script');          t.src =
"https://webchat.global.assistant.watson.appdomain.cloud/versions/"
+
(window.watsonAssistantChatOptions.clientVersion || 'latest') +
"/WatsonAssistantChatEntry.js";          document.head.appendChild(t);
    });
  </script>
 </div>

 <!-- Modal for full size images on click-->   <div
id="modal01" class="w3-modal w3-black"
onclick="this.style.display='none'">
   <span class="w3-button w3-xxlarge w3-black w3-padding-large w3-displaytopright"
title="Close Modal Image">×</span>
   <div class="w3-modal-content w3-animate-zoom w3-center w3-transparent w3padding-64">
     <img id="img01" class="w3-image">
     <p id="caption" class="w3-opacity w3-large"></p>
   </div>
 </div>

 <!-- Skills Section -->
 <div class="w3-container w3-light-grey w3-padding-64">
   <div class="w3-row-padding">
     <div class="w3-col m6">
       <h3>Our Skills.</h3>
       <p>Sketching designs <br>
         Selecting fabrics and embellishments and sourcing suppliers<br>
         Sewing and creating physical pieces<br>
         Hosting model fittings and making necessary alterations<br>
         Participating in fashion shows<br>
         Communicating with clients and the media<br>
         Marketing designs<br>
         Promoting designs to creative directors and merchandisers<br>
       </p>
     </div>
     <div class="w3-col m6">
       <p class="w3-wide"><i class="fa fa-camera w3-marginright"></i>Styling</p>
       <div class="w3-grey">
         <div class="w3-container w3-dark-grey w3-center"
```

```
style="width:90%">90%</div>          </div>
```

```html
        <p class="w3-wide"><i class="fa fa-desktop w3-
marginright"></i>Designing</p>
        <div class="w3-grey">
          <div class="w3-container w3-dark-grey w3-center"
style="width:85%">85%</div>
        </div>
        <p class="w3-wide"><i class="fa fa-photo w3-
marginright"></i>Marketing</p>
        <div class="w3-grey">
          <div class="w3-container w3-dark-grey w3-center"
style="width:75%">80%</div>
        </div>
      </div>
    </div>
  </div>


  <!-- Contact Section -->
  <div class="w3-container w3-light-grey" style="padding:128px 16px"
id="contact">
    <h3 class="w3-center">CONTACT</h3>
    <p class="w3-center w3-large">Lets get in touch. Send us a message:</p>
    <div style="margin-top:48px">
      <p><i class="fa fa-map-marker fa-fw w3-xxlarge w3-
marginright"></i>kaniyakumari, India.</p>
      <p><i class="fa fa-phone fa-fw w3-xxlarge w3-margin-right"></i> Phone:
+919876543210</p>
      <p><i class="fa fa-envelope fa-fw w3-xxlarge w3-margin-right"> </i>
Email: trendyfashion@gmail.com</p>
      <br>
      <form action="/action_page.php" target="_blank">
        <p><input class="w3-input w3-border" type="text" placeholder="Name"
required name="Name"></p>
        <p><input class="w3-input w3-border" type="text" placeholder="Email"
required name="Email"></p>
        <p><input class="w3-input w3-border" type="text" placeholder="Subject"
required name="Subject"></p>
        <p><input class="w3-input w3-border" type="text" placeholder="Message"
required name="Message"></p>
        <p>
          <button class="w3-button w3-black" type="submit" input type="reset">
<i class="fa fa-paper-plane"><a style="text-decoration: none;"
href="submit.html"> SEND MESSAGE </a></i>
          </button>
        </p>
      </form>
      <!-- Image of location/map -->
```

```html
    <img src="images/map.jpg" class="w3-image w3-greyscale"
style="width:100%;margin-top:48px">
    </div>
  </div>

  <!-- Footer -->
  <footer class="w3-center w3-black w3-padding-64">
    <a href="#home" class="w3-button w3-light-grey"><i class="fa fa-arrow-up
w3-margin-right"></i>To the top</a>
    <div class="w3-xlarge w3-section">
      <i class="fa fa-facebook-official w3-hover-opacity"></i>
      <i class="fa fa-instagram w3-hover-opacity"></i>
      <i class="fa fa-snapchat w3-hover-opacity"></i>
      <i class="fa fa-pinterest-p w3-hover-opacity"></i>
      <i class="fa fa-twitter w3-hover-opacity"></i>
      <i class="fa fa-linkedin w3-hover-opacity"></i>
    </div>
  </footer>

  <script>
    // Modal Image Gallery    function onClick(element) {
document.getElementById("img01").src = element.src;
document.getElementById("modal01").style.display = "block";
var captionText = document.getElementById("caption");
captionText.innerHTML = element.alt;
    }


    // Toggle between showing and hiding the sidebar when clicking the menu
icon    var mySidebar = document.getElementById("mySidebar");

    function w3_open() {        if
(mySidebar.style.display === 'block') {
mySidebar.style.display = 'none';
      } else {
mySidebar.style.display = 'block';
}
    }

    // Close the sidebar with the close button
function w3_close() {
      mySidebar.style.display = "none";
}
  </script>

</body>
```

```
</html>
```

View.html

```
<html>
<title>Casual Wears-trendyfashion.com</title>
<link rel="icon" type="image/x-icon" href="../images/download.jpg"> <meta
charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1">
<link rel="stylesheet" href="https://www.w3schools.com/w3css/4/w3.css">
<link rel="stylesheet" href="https://fonts.googleapis.com/css?family=Raleway">
<link rel="stylesheet"
href="https://cdnjs.cloudflare.com/ajax/libs/fontawesome/4.7.0/css/font-
awesome.min.css">
<style>    body,    h1,     h2,     h3,
h4,    h5,     h6 {           font-family:
"Raleway", sans-serif
    }
     .checked {
color: orange;
}
</style>

<body class="w3-light-grey w3-content" style="max-width:1600px">
    <!-- Sidebar/menu -->
    <nav class="w3-sidebar w3-collapse w3-white w3-animate-left"
style="zindex:3;width:300px;" id="mySidebar"><br>
        <div class="w3-container">
            <a  href="#"  onclick="w3_close()"  class="w3-hide-large  w3-right
w3jumbo w3-padding w3-hover-grey"                title="close menu">
                <i class="fa fa-remove"></i>
            </a>

            <h4><b>Trendy Fashion</b></h4>
            <p  class="w3-text-grey">!!!Explore  the  fashion  in  you!!!</p>
</div>
        <div class="w3-bar-block">
            <a href="../action_page.html" onclick="w3_close()" class="w3-
baritem w3-button w3-padding w3-text-teal"><i                 class="fa
fa-th-large fa-fw w3-margin-right"></i>Home</a>


            <a href="#contact" class="w3-bar-item w3-button w3-padding
```

```
w3-text-teal"><i class="fa fa-th-large fa-fw w3-margin-right"></i> Product
Details</a>
        </div>
        <div class="w3-panel w3-large">
            <i class="fa fa-facebook-official w3-hover-opacity"></i>
            <i class="fa fa-instagram w3-hover-opacity"></i>
            <i class="fa fa-snapchat w3-hover-opacity"></i>
            <i class="fa fa-pinterest-p w3-hover-opacity"></i>
            <i class="fa fa-twitter w3-hover-opacity"></i>
            <i class="fa fa-linkedin w3-hover-opacity"></i>
        </div>
    </nav>

    <!-- Overlay effect when opening sidebar on small screens -->
<div class="w3-overlay w3-hide-large w3-animate-opacity"
onclick="w3_close()" style="cursor:pointer"
        title="close side menu" id="myOverlay"></div>

    <!-- !PAGE CONTENT! -->
    <div class="w3-main" style="margin-left:300px">
        <!-- Header -->
        <header id="home">

            <div class="w3-container">
                <h1><b>Casual Wears</a>
                    <!-- <i class="fa fa-shopping-cart"
style="fontsize:48px;color:rgb(8, 8, 8);padding-left: 850px;"></i> --
>              </b></h1>
                <div class="row ">
                    <div class="col-md-12">
                        <img        style='float:left;width:200px;height:300px;
margin-right:10px;'
                        src="https://fashionimages.s3.us-south.cloud-
objectstorage.appdomain.cloud/fashion1.jpg"
alt="womenfashion" srcset="" >
                        <p class="font-weight-bolder" style="font-size:
200%;font-family:verdana; ">WhatIf casuals trench coat oufit
                        <p class="text-monospace"
style="color:#22a2d7;">16,480 ratings | 195 answered questions |
                            #1 Best Seller in Women's Formal Dresses</p>
                            <hr
style="height:2px;borderwidth:0;color:gray;background-color:gray">
                        <p style="color:rgb(168, 142,
142)">Price:<b style='font-size:20px; color:#cc3939;'>&#8377;
1699</b></p>                    <p>Good Stretch,
Comfortable</p>
                    <p>A Solid Color,Long Length,Perfecyly Fit For All The
```

```
Occasions--Formal, Evening Prom, Vacation, etc.</p>
                        <button style="color:rgb(255, 255,
255);backgroundcolor: rgb(169, 169, 169);"type="button"
onclick="alert('Product added to cart')">Add to cart</button>
                        <button style="color:rgb(255, 255,
255);backgroundcolor: rgb(169, 169, 169);"type="button">Buy Now</button>
                        </div>
            </div>
        </header>
<br>
        <!-- First Photo Grid-->
        <div class="w3-row-padding">
            <div class="w3-third w3-container w3-margin-bottom">
                <img src="https://fashionimages.s3.us-south.cloud-
objectstorage.appdomain.cloud/wool%201.jpg" alt="Norway" style="width:60%"
class="w3-hover-opacity">
                <div class="w3-container w3-white">
                    <p class="font-weight-bolder" style="font-size:
150%;fontfamily:verdana; ">WhatIf casuals trnch coat oufit
<p class="text-monospace" style="color:#22a2d7;">16,300 ratings</p>
                        <p style="color:rgb(168, 142, 142)">Price:<b
style='font-size:20px; color:#cc3939;'>&#8377; 1589</b></p>
                </div>
            </div>
            <div class="w3-third w3-container w3-margin-bottom">
                <img src="https://fashionimages.s3.us-south.cloud-
objectstorage.appdomain.cloud/wool%202.jpg" alt="Norway" style="width:50%"
class="w3-hover-opacity">
                <div class="w3-container w3-white">
                    <p class="font-weight-bolder" style="font-size:
150%;fontfamily:verdana; ">WhatIf casuals trench coat oufit
<p class="text-monospace" style="color:#22a2d7;">16,320 ratings</p>
                        <p style="color:rgb(168, 142, 142)">Price:<b
style='font-size:20px; color:#cc3939;'>&#8377; 1549</b></p>
                </div>
            </div>
            <div class="w3-third w3-container">
                <img src="https://fashionimages.s3.us-south.cloud-
objectstorage.appdomain.cloud/wool%203.jpg" alt="Norway" style="width:60%"
class="w3-hover-opacity">
                <div class="w3-container w3-white">
                    <p class="font-weight-bolder" style="font-size:
150%;fontfamily:verdana; ">WhatIf casuals trench coat oufit
```

```html
                <p class="text-monospace"
style="color:#22a2d7;">16,000 ratings</p>
                        <p style="color:rgb(168, 142, 142)">Price:<b
style='font-size:20px; color:#cc3939;'>&#8377; 1290</b></p>
                </div>
            </div>
        </div>

        <!-- Second Photo Grid-->
        <div class="w3-row-padding">
            <div class="w3-third w3-container w3-margin-bottom">
<img src="https://fashionimages.s3.us-south.cloud-
objectstorage.appdomain.cloud/wool%204.jpg" alt="Norway" style="width:60%"
class="w3-hover-opacity">
                <div class="w3-container w3-white">
                    <p class="font-weight-bolder" style="font-size:
150%;fontfamily:verdana; ">WhatIf casuals trench coat oufit
<p class="text-monospace" style="color:#22a2d7;">16,980 ratings</p>
                        <p style="color:rgb(168, 142, 142)">Price:<b
style='font-size:20px; color:#cc3939;'>&#8377; 7499</b></p>
                </div>
            </div>
            <div class="w3-third w3-container w3-margin-bottom">
<img src="https://fashionimages.s3.us-south.cloud-
objectstorage.appdomain.cloud/wool%205.jpg" alt="Norway" style="width:60%"
class="w3-hover-opacity">
                <div class="w3-container w3-white">
                    <p class="font-weight-bolder" style="font-size:
150%;fontfamily:verdana; ">WhatIf casuals trench coat oufit
<p class="text-monospace" style="color:#22a2d7;">18,700 ratings</p>
                        <p style="color:rgb(168, 142, 142)">Price:<b
style='font-size:20px; color:#cc3939;'>&#8377; 9799</b></p>
                </div>
            </div>
            <div class="w3-third w3-container">
                <img src="https://fashionimages.s3.us-south.cloud-
objectstorage.appdomain.cloud/wool%206.jpg" alt="Norway" style="width:60%"
class="w3-hover-opacity">
                <div class="w3-container w3-white">
                    <p class="font-weight-bolder" style="font-size:
150%;fontfamily:verdana; ">WhatIf casuals trench coat oufit
<p class="text-monospace" style="color:#22a2d7;">16,608 ratings</p>
                        <p style="color:rgb(168, 142, 142)">Price:<b
style='font-size:20px; color:#cc3939;'>&#8377; 5899</b></p>
```

```html
            </div>
        </div>
      </div>
  <!-- Pagination -->

      <hr style="height:2px;border-width:0;color:gray;backgroundcolor:gray">
</hr>

      <div  class="w3-container">
          <div class="w3-bar">
              <a href="../casuals/casual.html" style="text-decoration:
none;font-size: medium;color: blue;padding: 350px;">
                      Click here for more casual wears </a>

          </div>
      </div>

      <hr style="height:2px;border-width:0;color:gray;backgroundcolor:gray">
</hr>

      <h4><b>Top Reviews</h4>

          <!-- Pricing Tables -->
          <div class="w3-row-padding" style="margin:0 -16px">
              <div class="w3-third w3-margin-bottom">
                  <ul class="w3-ul w3-border w3-white w3-center w3-opacity
w3-hover-opacity-off">

                      <li class="w3-black w3-xlarge w3-padding-32" > <span
class="fa fa-star checked"></span>
                          <span class="fa fa-star checked"></span>
                          <span class="fa fa-star checked"></span>
                          <span class="fa fa-star"></span>
                          <span class="fa fa-star"></span>Amazing Dress
</li>
                      <li class="w3-padding-16">The dress is soft and warm.
The turtle neck doesn't make me feel choked like other turtle
necks do, this one is more slouchy. The light pink color is a bit more "peach-
y" than I expected,
                          (I was picturing more of a dusty rose color) but
that isn't a problem for me. Loved it so much I
                          immediately ordered another in grey....still
considering getting more colors </li>
```

```
                <li class="w3-light-grey w3-padding-24">
                    <button class="w3-button w3-teal w3-padding-large
w3-hover-black">Helpful</button>
                </li>
            </ul>
        </div>
        <div class="w3-third w3-margin-bottom">
```

```html
                    <ul class="w3-ul w3-border w3-white w3-center w3-opacity
w3-hover-opacity-off">
                        <li class="w3-black w3-xlarge w3-padding-32" > <span
class="fa fa-star checked"></span>
                            <span class="fa fa-star checked"></span>
                            <span class="fa fa-star checked"></span>
                            <span class="fa fa-star checked"></span>
                            <span class="fa fa-star"></span>Fantastic and cute
 </li>
                        <li class="w3-padding-16">Very pleased when I
received this coat. I am 5'4, 36D, waist 29.5 and hippy at 40. I definitely
wanted a flare or swing coat for the feminine look it gives and for comfort.
I ordered a large which is big especially                            around
the waist but I wanted enough room to layer up if I needed extra warmth for
those extremely ice cold winters.
                            The Coat has good weight to it, nicely tailored
, wool blend and very soft.   </li>
                        <li class="w3-light-grey w3-padding-24">
                            <button class="w3-button w3-teal w3-padding-large
w3-hover-black">Helpful</button>
                        </li>
                    </ul>
                </div>

                <div class="w3-third">
                    <ul class="w3-ul w3-border w3-white w3-center w3-opacity
w3-hover-opacity-off">
                        <li class="w3-black w3-xlarge w3-padding-32" > <span
class="fa fa-star checked"></span>
                            <span class="fa fa-star checked"></span>
                            <span class="fa fa-star checked"></span>
                            <span class="fa fa-star checked"></span>
                            <span class="fa fa-star checked"></span>Awesome
Product</li>
                        <li class="w3-padding-16"> I need snow gear for
hiking, snow shoeing, just living in the mountains 😂 As a tall, plus
sized woman Columbia really delivers. The arms are long enough the cuts are
flattering and this long coat has room                            in the
hips. Amazing! I truly love Columbia's fit.The sweater was chunky just like
I was hoping and even a little bit                            long (past
my butt), which I like. The sweater is snuggly soft too. </li>
                        <li class="w3-light-grey w3-padding-24">
                            <button class="w3-button w3-teal w3-padding-large
w3-hover-black">Helpful</button>
```

```
        </li>
```

```html
                </ul>
            </div>
        </div>
    </div>


    <!-- Contact Section -->
    <div class="w3-container w3-padding-large w3-
grey"style="marginleft:300px" id="contact">
        <h3>Product details</h3>
        <p>Is Discontinued By Manufacturer : No</p>
        <p>Package Dimensions : 13.07 x 10.55 x 2.13 inches; 1.12 Pounds</p>
        <p>Item model number : WS63161-1</p>
        <p> Department : womens</p>
        <p>Date First Available : September 17, 2022</p>
        <p>ASIN : B07HFSQBX8</p>
        <p>Best Sellers Rank: #372 in Clothing, Shoes & Jewelry (See Top
100 in Clothing, Shoes & Jewelry)</p>
        <p>#1 in Women's Formal Dresses</p>
        <p>Customer Reviews: 4.4 out of 5 stars     16,480 ratings</p>


    </div>


    <!-- Footer -->
    <footer class="w3-center w3-black w3-padding-64">
        <a href="#home" class="w3-button w3-light-grey"><i class="fa
faarrow-up w3-margin-right"></i>To the top</a>
        <div class="w3-xlarge w3-section">
            <i class="fa fa-facebook-official w3-hover-opacity"></i>
            <i class="fa fa-instagram w3-hover-opacity"></i>
            <i class="fa fa-snapchat w3-hover-opacity"></i>
            <i class="fa fa-pinterest-p w3-hover-opacity"></i>
            <i class="fa fa-twitter w3-hover-opacity"></i>
            <i class="fa fa-linkedin w3-hover-opacity"></i>
        </div>
    </footer>
    <script>
        // Script to open and close sidebar          function
w3_open() {
document.getElementById("mySidebar").style.display = "block";
document.getElementById("myOverlay").style.display = "block";          }
        function w3_close() {
document.getElementById("mySidebar").style.display = "none";
document.getElementById("myOverlay").style.display = "none";
        }
    </script>
```

```
</body>
</html>
```

Casual.html

```
<!DOCTYPE html>
<html>
    <title>Casuals-trendyfashion.com</title>
    <link rel="icon" type="image/x-icon" href="../Images/download.jpg">

<style> * {    box-
sizing: border-box;
}   body {
margin: 0;
    font-family: Arial;
}

.header {    text-
align: center;
padding: 32px;
}
 .row {    display: -ms-flexbox;
/* IE10 */    display: flex;
  -ms-flex-wrap: wrap; /* IE10
*/    flex-wrap: wrap;    padding:
0 4px;
}

/* Create four equal columns that sits next to each other */ .column
{
  -ms-flex: 25%; /* IE10
*/    flex: 25%;    max-
width: 25%;    padding: 0
4px;
}

.column img {    margin-
top: 8px;    vertical-
align: middle;    width:
100%;
}
```

```css
/* Responsive layout - makes a two column-layout instead of four columns */
@media screen and (max-width: 800px) {
  .column {      -ms-
flex: 50%;     flex:
50%;     max-width:
50%;
  }
}

/* Responsive layout - makes the two columns stack on top of each other
instead of next to each other */
@media screen and (max-width: 600px) {
  .column {
    -ms-flex: 100%;
flex: 100%;     max-
width: 100%;
  }
}
</style>
<body>

<!-- Header -->
<div class="header"style="background-image:
url('https://encryptedtbn0.gstatic.com/images?q=tbn:ANd9GcQGrJ4SIjnY81v-
MUVoXt0tZmu6hjzAXRnAcA&usqp=CAU')">
  <h1>CASUAL TRENCH COAT WEARS</h1>

</div>

<!-- Photo Grid -->
<div class="row">
  <div class="column">
    <div class="w3-third w3-container w3-margin-bottom">
      <img src="https://fashionimages.s3.us-south.cloud-
objectstorage.appdomain.cloud/wool7.jpg" alt="Norway" style="width:60%"
class="w3hover-opacity">
      <div class="w3-container w3-white">
        <p class="font-weight-bolder" style="font-size:
150%;fontfamily:verdana; ">Canna casuals trench coat oufit
          <p   class="text-monospace"   style="color:#22a2d7;">16,500
ratings</p>
          <p style="color:rgb(168, 142, 142)">Price:<b
style='fontsize:20px; color:#cc3939;'>&#8377; 2599</b></p>
      </div>
    </div>
    <div class="w3-third w3-container w3-margin-bottom">
```

```html
        <img src="https://fashionimages.s3.us-south.cloud-
objectstorage.appdomain.cloud/wool8.jpg" alt="Norway" style="width:50%"
class="w3hover-opacity">
        <div class="w3-container w3-white">
            <p class="font-weight-bolder" style="font-size:
150%;fontfamily:verdana; ">Juvain casuals trench coat oufit
                <p    class="text-monospace"    style="color:#22a2d7;">16,360
ratings</p>
                <p style="color:rgb(168, 142, 142)">Price:<b
style='fontsize:20px; color:#cc3939;'>&#8377; 1669</b></p>
        </div>
    </div>
    <div class="w3-third w3-container">
        <img src="https://fashionimages.s3.us-south.cloud-
objectstorage.appdomain.cloud/wool9.jpg" alt="Norway" style="width:60%"
class="w3hover-opacity">
        <div class="w3-container w3-white">
            <p class="font-weight-bolder" style="font-size:
150%;fontfamily:verdana; ">Cretia casuals trench coat oufit
                <p    class="text-monospace"    style="color:#22a2d7;">16,700
ratings</p>
                <p style="color:rgb(168, 142, 142)">Price:<b
style='fontsize:20px; color:#cc3939;'>&#8377; 1690</b></p>
        </div>
    </div>
  </div>


  <div class="column">
    <div class="w3-third w3-container w3-margin-bottom">
            <img src="https://fashionimages.s3.us-south.cloud-
objectstorage.appdomain.cloud/wool10.jpg" alt="Norway" style="width:60%"
class="w3hover-opacity">
            <div class="w3-container w3-white">
                <p class="font-weight-bolder" style="font-size:
150%;fontfamily:verdana; ">Magna casuals trench coat oufit
<p class="text-monospace" style="color:#22a2d7;">16,800 ratings</p>
                    <p style="color:rgb(168, 142, 142)">Price:<b
style='font-size:20px; color:#cc3939;'>&#8377; 4899</b></p>
            </div>
        </div>
        <div class="w3-third w3-container w3-margin-bottom">
            <img src="https://fashionimages.s3.us-south.cloud-
objectstorage.appdomain.cloud/wool11.jpg" alt="Norway" style="width:50%"
class="w3hover-opacity">
            <div class="w3-container w3-white">
                <p class="font-weight-bolder" style="font-size:
150%;fontfamily:verdana; ">Mila casuals trench coat oufit
```

```html
                                <p                           class="text-monospace"
style="color:#22a2d7;">16,330 ratings</p>
                                <p style="color:rgb(168, 142, 142)">Price:<b
style='font-size:20px; color:#cc3939;'>&#8377; 9569</b></p>
                    </div>
            </div>
            <div class="w3-third w3-container">
                    <img src="https://fashionimages.s3.us-south.cloud-
objectstorage.appdomain.cloud/wool12.jpg" alt="Norway" style="width:60%"
class="w3hover-opacity">
                    <div class="w3-container w3-white">
                        <p class="font-weight-bolder" style="font-size:
150%;fontfamily:verdana; ">wolfia casuals trench coat oufit
<p class="text-monospace" style="color:#22a2d7;">16,360 ratings</p>
                                <p style="color:rgb(168, 142, 142)">Price:<b
style='font-size:20px; color:#cc3939;'>&#8377; 6590</b></p>
                    </div>
            </div>
    </div>


    <div class="column">
        <div class="w3-third w3-container w3-margin-bottom">
                    <img src="https://fashionimages.s3.us-south.cloud-
objectstorage.appdomain.cloud/wool13.jpg" alt="Norway" style="width:60%"
class="w3hover-opacity">
                    <div class="w3-container w3-white">
                        <p class="font-weight-bolder" style="font-size:
150%;fontfamily:verdana; ">Fiana casuals trench coat oufit
<p class="text-monospace" style="color:#22a2d7;">16,407 ratings</p>
                                <p style="color:rgb(168, 142, 142)">Price:<b
style='font-size:20px; color:#cc3939;'>&#8377; 7599</b></p>
                    </div>
            </div>
            <div class="w3-third w3-container w3-margin-bottom">
                    <img src="https://fashionimages.s3.us-south.cloud-
objectstorage.appdomain.cloud/wool14.jpg" alt="Norway" style="width:50%"
class="w3hover-opacity">
                    <div class="w3-container w3-white">
                        <p class="font-weight-bolder" style="font-size:
150%;fontfamily:verdana; ">Jenna casuals trench coat oufit
<p class="text-monospace" style="color:#22a2d7;">16,390 ratings</p>
                                <p style="color:rgb(168, 142, 142)">Price:<b
style='font-size:20px; color:#cc3939;'>&#8377; 4569</b></p>
                    </div>
```

```
            </div>
            <div class="w3-third w3-container">
                <img src="https://fashionimages.s3.us-south.cloud-
objectstorage.appdomain.cloud/wool15.jpg" alt="Norway" style="width:40%"
class="w3hover-opacity">
                <div class="w3-container w3-white">
                    <p class="font-weight-bolder" style="font-size:
150%;fontfamily:verdana; ">Jefy casuals trench coat oufit
<p class="text-monospace" style="color:#22a2d7;">16,360 ratings</p>
                        <p style="color:rgb(168, 142, 142)">Price:<b
style='font-size:20px; color:#cc3939;'>&#8377; 7590</b></p>
                </div>
            </div>
    </div>



    <div class="column">
        <div class="w3-third w3-container w3-margin-bottom">
                <img src="https://fashionimages.s3.us-south.cloud-
objectstorage.appdomain.cloud/wool16.jpg" alt="Norway" style="width:60%"
class="w3hover-opacity">
                <div class="w3-container w3-white">
                    <p class="font-weight-bolder" style="font-size:
150%;fontfamily:verdana; ">Juvaina casuals trench coat oufit
<p class="text-monospace" style="color:#22a2d7;">16,480 ratings</p>
                        <p style="color:rgb(168, 142, 142)">Price:<b
style='font-size:20px; color:#cc3939;'>&#8377; 8599</b></p>
                </div>
            </div>
            <div class="w3-third w3-container w3-margin-bottom">
                <img src="https://fashionimages.s3.us-south.cloud-
objectstorage.appdomain.cloud/wool18.jpg" alt="Norway" style="width:50%"
class="w3hover-opacity">
                <div class="w3-container w3-white">
                    <p class="font-weight-bolder" style="font-size:
150%;fontfamily:verdana; ">Mkla casuals trench coat oufit
<p class="text-monospace" style="color:#22a2d7;">16,390 ratings</p>
                        <p style="color:rgb(168, 142, 142)">Price:<b
style='font-size:20px; color:#cc3939;'>&#8377; 9869</b></p>
                </div>
            </div>
            <div class="w3-third w3-container">
                <img src="https://fashionimages.s3.us-south.cloud-
objectstorage.appdomain.cloud/wool19.jpg" alt="Norway" style="width:60%"
class="w3hover-opacity">
```

```html
                    <div class="w3-container w3-white">
                        <p class="font-weight-bolder" style="font-size:
150%;fontfamily:verdana; ">Lika casuals trench coat oufit
<p class="text-monospace" style="color:#22a2d7;">16,309 ratings</p>
                          <p style="color:rgb(168, 142, 142)">Price:<b
style='font-size:20px; color:#cc3939;'>&#8377; 7890</b></p>
                    </div>
                </div>
    </div>
</div>


</body>
</html>
```

App.py

```python
from flask import Flask, render_template, request, redirect, url_for, session
import ibm_db import re
 app = Flask(__name__)
   app.secret_key = 'api'
 conn=ibm_db.connect("DATABASE=trendy_fashion;HOSTNAME=9938aec0-8105-433e-
8bf90fbb7e483086.c1ogj3sd0tgtu0lqde00.databases.appdomain.cloud;PORT=32459;Securit
y=SSL;SSLServerCertificate=DigiCertGlobalRootCA.crt;UID=dpk79343;PWD=29Jm7EbzO
ubtoerk",'','')
@app.route('/')
 def homer():
    return render_template('signup.html')

@app.route('/Login',methods =['GET', 'POST']) def
login():     global userid     msg = ''
         if request.method ==
'POST' :
       username = request.form['username']        password =
request.form['password']       sql = "SELECT * FROM users WHERE
username =? AND password=?"        stmt = ibm_db.prepare(conn, sql)
ibm_db.bind_param(stmt,1,username)
```

```python
ibm_db.bind_param(stmt,2,password)
ibm_db.execute(stmt)          account =
ibm_db.fetch_assoc(stmt)           print
(account)          if account:
            session['loggedin']         =         True
session['id'] = account['USERNAME']           userid=
account['USERNAME']               session['username'] =
account['USERNAME']                 msg = 'Logged in
successfully !'
                         msg = 'Logged in successfully !'
return render_template('homepage.html', msg = msg)
else:
            msg = 'Incorrect username / password !'
return render_template('index.html', msg = msg)




@app.route('/Register', methods =['GET',
'POST']) def registet():     msg = ''      if
request.method == 'POST' :
        username = request.form['username']
email = request.form['email']          password =
request.form['password']          sql = "SELECT *
FROM users WHERE username =?"          stmt =
ibm_db.prepare(conn, sql)
ibm_db.bind_param(stmt,1,username)
ibm_db.execute(stmt)
        account =
ibm_db.fetch_assoc(stmt)
print(account)          if account:
            msg = 'Account already exists !'
elif not re.match(r'[^@]+@[^@]+\.[^@]+', email):
            msg = 'Invalid email address !'
elif not re.match(r'[A-Za-z0-9]+', username):
            msg = 'name must contain only characters and numbers !'
else:
            insert_sql = "INSERT INTO  users VALUES (?, ?,
?)"          prep_stmt = ibm_db.prepare(conn, insert_sql)
ibm_db.bind_param(prep_stmt, 1, username)
ibm_db.bind_param(prep_stmt, 2, email)
ibm_db.bind_param(prep_stmt, 3, password)
ibm_db.execute(prep_stmt)               msg = 'You have
successfully registered !'      elif request.method == 'POST':
```

```python
        msg = 'Please fill out the form !'       return
render_template('reg.html', msg = msg)


@app.route('/Homepage') def dash():          return
render_template('homepage.html')


@app.route('/apply',methods =['GET', 'POST']) def
apply():       msg = ''         if request.method ==
'POST' :
        username = request.form['username']
email = request.form['email']
                qualification=
request.form['qualification']         skills =
request.form['skills']          jobs = request.form['s']
sql = "SELECT * FROM users WHERE username =?"          stmt =
ibm_db.prepare(conn, sql)
ibm_db.bind_param(stmt,1,username)
ibm_db.execute(stmt)            account =
ibm_db.fetch_assoc(stmt)          print(account)          if
account:
          msg = 'there is only 1 job position! for you'
return render_template('apply.html', msg = msg)
                        insert_sql = "INSERT INTO  job VALUES (?,
?, ?, ?, ?)"          prep_stmt = ibm_db.prepare(conn, insert_sql)
ibm_db.bind_param(prep_stmt, 1, username)
ibm_db.bind_param(prep_stmt, 2, email)
ibm_db.bind_param(prep_stmt, 3, qualification)
ibm_db.bind_param(prep_stmt, 4, skills)
ibm_db.bind_param(prep_stmt, 5, jobs)
ibm_db.execute(prep_stmt)
        msg   =   'You   have   successfully   applied   for   job   !'
session['loggedin'] = True
        TEXT = "Hello,a new application for job position" +jobs+"is
requested"


                        elif
request.method == 'POST':
```

```python
        msg = 'Please fill out the form !'
    return render_template('apply.html', msg = msg)


@app.route('/display') def
display():
    print(session["username"],session['id'])
        cursor = mysql.connection.cursor()    cursor.execute('SELECT *
FROM job WHERE userid = % s', (session['id'],))    account =
cursor.fetchone()    print("accountdislay",account)           return
render_template('display.html',account = account)
@app.route('/logout')
 def
logout():
   session.pop('loggedin', None)
session.pop('id', None)
session.pop('username', None)    return
render_template('home.html')
 if __name__ ==
'__main__':
app.run(host='0.0.0.0')
```

GitHub Link
https://github.com/IBM-EPBL/IBM-Project-29786-1660129838
Demo Link

https://www.kapwing.com/videos/6374f3f236fa3601e697787e