0.a Come up with a team name for your group.

Team SHOP

0. b Please list the names and PIDs of the team members who are present today (or knowingly absent)

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0.c Provide your preliminary project idea (or set of ideas). This is not a commitment to a project.

Using the approved idea for your group's course project, complete the following activities related to requirements analysis.

AI Shopping System: This system allows user to enter his or her's personal clothing style preferences, their personal information, and any brand choices they might have in mind. Given these 3 categories, users will get tailored clothing suggestions from our system. This system will allow users to pick out clothing pieces based on price ranges and the number of reviews as well. Furthermore, based on a user's previous shopping purchases from our system, we will have a better understanding of which outfits and clothes to suggest using our AI algorithm.

1. Provide an example of five hypothetical non-functional requirements for this system. Be sure to include the specific type of requirement discussed in class, with each requirement coming from a unique category.

~Usability:

Feedback: The user should be able to receive feedback from the system. The feedback must be timely and informative for the user, such as confirming certain preferences or displaying loading screens when needed.

~Reliability:

Data Accuracy: The system should ensure that the clothing suggestion provided aligns with the users' inputted information and preferences. The system should minimize mistakes such as irrelevant suggestions.

~Performance:

Run Time: The system should be able to respond to user inputs and other queries in a fast and timely manner, reducing wait times and maximizing user satisfaction.

~Supportability:

Documentation: The system should have proper documentation, instructions, and tutorials for the user to easily understand how the system works, and what features they can use.

~Implementation/Constraints:

Integration: The system should be designed in such a way that there is easy integration access with APIs (payment APIs and online catalog APIs) to enhance the user's experience.

2. Provide an example of five hypothetical functional requirements for this system.

~User account management: The user should be able to make their account with their own personal details such as phone, email, address, age, and weight.

~Review and rating system: The system should ask the user within a few days of using the product how the user likes the app and for any suggestions in terms of improvement.

~Account History and Order History: The system should be able to track what products the user has ordered and should be able to display it to the user at the user's discretion.

~Preferences selection: The user should be able to input their preferences when asked questions from the system to better understand what they want. Questions such as height, weight, size, color, brand, etc.

~Size and fit guide: The user should be able to review what size they want after the system provides a detailed size guide and chart description for each size.

3. Think of a specific task required to complete each of the functional requirements and non-functional requirements mentioned above (10 total). Estimate the amount of effort needed to complete this task using function points (i.e., using the values here). Briefly explain your answer.

1. User Account Management: Task: Implement user registration form. This task involves designing and coding a form where users can input their details like phone, email, address, age, weight, and height. We estimate this task to use up 5 function points.

2. Review and Rating System: Task: Develop a feedback prompt and storage mechanism. This task involves creating a feedback prompt that appears after a few days of using the app, collecting user suggestions, and storing them for analysis. Estimated 3 function points.

3. Account History and Order History:Task: Design order tracking functionality. This task involves creating a mechanism to track user orders and display them to users when requested. Estimated 8 function points.

4. Preferences Selection:Task: Develop preference input forms and processing logic. This task involves creating forms where users can input their preferences like height, weight, size, color, brand, etc., and implementing logic to process and store these preferences. Estimated 3 function points.

5. Size and Fit Guide: Task: Create a detailed size guide feature. This task involves designing and implementing a feature that provides users with detailed size guides and chart descriptions for each size. Estimated 2 function points.

6. Usability:Task: Implement feedback messages and loading screens. This task involves designing and coding feedback messages to confirm user preferences and implementing loading screens where necessary. Estimated 2 function points.

7. Reliability : Task: Ensure data validation and accuracy in clothing suggestions. This task involves implementing validation checks to ensure that clothing suggestions align with user preferences and minimizing errors such as irrelevant suggestions. Estimated 5 function points.

8. Performance: Task: Optimize system response time. This task involves analyzing and optimizing system performance to reduce response times for user inputs and queries. Estimated 8 function points.

9. Supportability: Task: Develop user documentation and tutorials. This task involves writing and organizing user manuals, instructions, and tutorials to help users understand the system's features and usage. Estimated 3 function points.

10. Implementation/Constraints: Task: Integrate with payment and online catalog APIs.This task involves integrating the system with external APIs for payment processing and accessing online catalog data to enhance the user experience. Estimated 5 function points.

4. Write three user stories from the perspective of at least two different actors. Provide the acceptance criteria for these stories.

Story 1: From the perspective of a customer: As a customer, I would like to be able to get suggestions in a short period and would like to easily apply my filters. The acceptance criteria for this story would be that the suggestions would appear within 4-5 seconds and filters must be easy to find and apply and be able to load the suggestion page.

Story 2: From the perspective of a customer: I want to be able to quickly check out the product I have chosen which includes a simple checkout process with confirmation. The acceptance criteria for this would be that the checkout process takes at most 4 steps, and after submitting payment, the system displays an order summary of all the information so the user has confirmation.

Story 3: From the perspective of an administrator: As an administrator, I want to be able to review how many orders have been placed from my service a day and how many per customer. The acceptance criteria for this would be for the system to be able to provide a detailed summary of orders for each day and the total price.

5. Provide two examples of risk that could potentially impact this project. Explain how you would mitigate these risks if you were implementing your project as a software system.

~Security risk and data breach: As a system that will have access to personal data of the users such as address, card information, name, phone, etc. security breach is a huge risk. The mitigate this risk we could implement security measures such as using secure coding practices, and encryption.

~System Downtime: Another risk our system may face is large amounts of traffic at one time. Which can cause glitches, lags, and customer dissatisfaction. The way to mitigate this risk is to choose a reliable hosting service and regular testing and maintenance which will ensure the system is running smoothly during high traffic times.

6. Describe which process your team would use for requirements elicitation from clients or customers, and explain why.

Our team would use interviews and focus groups, as well as questionnaires and surveys. The interviews and focus groups would help us understand the needs of the customers, as well as any questions or concerns they may have. Our team would use questionnaires and surveys to gather any specific data on user preferences in terms of qualitative data such as how many suggestions they would like to receive when entering in their preferences.