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**FSPM A1**

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Section: 8-B

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**Product: Augmented Reality App for Cosmetics**

**TASK#01:**

**Scope Statement:**

The Augmented Reality (AR) app for cosmetics is a smartphone application that allows users to visually apply beauty products to their faces by utilizing the camera on their device. The app will suggest cosmetic products that are a good fit for the user's skin tone and texture. The app's major purpose is to give users with an entertaining and interactive experience while also improving the marketing and sales of cosmetic products.

**Inclusions:**

* The app will allow users to choose from a variety of makeup products, including foundation, blush, bronzer, highlighter, eye shadow, eyeliner, mascara, lipstick, and lip gloss.
* Users will be able to adjust the intensity and shade of the makeup products to suit their preferences.
* The app will provide real-time feedback, allowing users to see the makeup products applied to their face as they move their head and change their facial expressions.
* Users will be able to share their virtual makeup looks on social media platforms directly from the app.
* Capture a picture of the user's face and apply makeup products such as base, lipstick, and eye shadows to it.
* Provide a recommendation for cosmetic products that match the user's skin tone and texture.
* Users can save their virtual makeup looks for future reference.
* The app will feature a user-friendly interface.

**Exclusions:**

* The app will not provide any tools for skincare analysis or treatment.
* The app will not use facial recognition technology to identify users or collect data for other purposes.
* The app will not offer any features for virtual try-on of cosmetic products other than those available within the app.
* The app will not allow users to purchase cosmetic products directly from the app.
* The app will not provide any medical advice or recommendations.

**Constraints:**

* The app will only work with devices that have a camera.
* The app will require an internet connection to provide product recommendations.
* The app will only recommend cosmetic products from partner brands.
* The app's performance may vary depending on the quality of the camera and the processing power of the device.
* The app's recommendations will only be based on the limited range of products available from partner brands.
* The app may not function properly in low-light conditions or with excessive glare or shadows.
* The app's ability to accurately match skin tone and texture may vary depending on the lighting and color accuracy of the camera and display.
* The app will only be available for use on mobile devices.

**Dependencies:**

* The app's functionality will depend on the cooperation of partner brands to provide product information and updates.
* The app's performance may depend on the operating system and hardware specifications of the user's device.
* The app's recommendation engine may depend on machine learning algorithms and data analysis tools provided by third-party services.
* The app's functionality depends on the device's camera and internet connection.
* The app's product recommendations will depend on partner brands' product availability and updates.

**TASK#02:**

1. Analysis
   1. Identify Risks and Constraints
   2. Conduct Market Search Analysis
   3. Gather and Analyze User Requirements
   4. Prepare Functional and Non-Functional Requirements
   5. Define Project Scope and Objectives
   6. Create Project Plan and Schedule
   7. Define Technical Specifications
   8. Conduct Feasibility Analysis
   9. Define Budget and Allocate Resources
2. Design
   1. Design User Interface
   2. Create Database Schema
   3. Create Data Model
   4. Define System Architecture
   5. Develop Design Specifications
   6. Obtain Approval from Stakeholders for the Design
   7. Create Wireframes
3. Construction
   1. Develop Front-end
   2. Develop Back-end
   3. Perform Integration of APIs and Modules
   4. Perform Unit Testing and Debugging
   5. Perform Integration Testing
   6. Fix Defects and Issues
   7. Implement User Authentication and Authorization
4. Testing
   1. Conduct System Testing
   2. Conduct Performance Testing
   3. Conduct Security Testing
   4. Conduct User Acceptance Testing
   5. Fix Defects and Issues
   6. Test Compatibility Across Different Devices and Operating System
5. Deployment
   1. Deploy the application to Production Environment
   2. Conduct Post-Deployment Testing
   3. Monitor Application Performance
   4. Prepare User Manuals and Technical Documentation
   5. Provide Training and Support to End-Users
6. Support
   1. Perform Ongoing Maintenance and Bug Fixing
   2. Provide Technical Support to End-Users
   3. Monitor Application Performance and User Feedback
   4. Conduct Evaluation and Review
   5. Perform Updates
   6. Create Project Documentation