Overview

To successfully complete your assignment on System Requirements Specifications (SRS) and create a high-level UML-based system overview, follow these structured steps:

Prepare

1. Understanding the Project Description

- **Read and Analyze:** Carefully read the project description to understand its scope, objectives, and key features.
- **Identify Key Elements:** Highlight key elements like target users, primary functionalities, and specific constraints or goals mentioned in the project description.
- **Clarify Goals:** Ensure every team member knows the end goals of the project.

2. Gather Your Resources (Define Clearly)

- **Research Best Practices:** Look into best practices for SRS documentation and UML diagrams relevant to your project type.
- **Review Past Lectures:** Go through your lecture notes and materials to understand the expectations regarding use cases and activity diagrams.
- **Consult Templates and Examples**: Review the provided SRS template and find examples of similar projects to get an idea of standard practices and formatting.

3. Team Structure and Roles

- **Project Coordinator - Member 1**
- **Requirements Analyst - Member 2**
- **UML and System Design Specialist - Member 3**
- **SRS Document Writer - Member 4**
- **Quality Assurance and Reviewer - Member 5**

Start

4. Listing Functional Requirements

- **Gather Requirements:** List all the functional and non-functional requirements.

- **Categorize and Prioritize:** Group similar functionalities and prioritize them based on the project goals. Determine which requirements are essential and which are optional.
- **SRS Template:** Use the provided SRS template to organize these requirements.

5. Defining High-Level Objects and Developing UML Diagrams

- **Identify Key Objects**: Determine the main objects or classes in your system (e.g., User, Product, Order in an e-commerce system).
- **Develop UML Diagrams**: Developing UML (Unified Modeling Language) diagrams is a crucial step in visualizing and designing the system architecture. UML diagrams help in understanding the flow, interactions, and structure of your system.

6. Regular Team Meetings and Minutes

- **Schedule Regular Meetings**: Set up regular meetings with your team to discuss progress, challenges, and next steps.
- **Record Minutes:** Document key points, decisions, and individual responsibilities discussed in each meeting. This keeps track of progress and holds team members accountable.
- **Peer Review Sessions:** Organized by the Quality Assurance and Reviewer for cross-checking work.
- **Collaboration Tools:** Use tools like Trello, Asana, or Jira for task management and Slack or Microsoft Teams for communication

7. Finalizing and Review

- **Review and Edit:** Thoroughly review the SRS document and UML diagrams for completeness, accuracy, and clarity.
- **Peer Review:** Have team members review each other's work for additional perspectives and catch potential errors.
- **Finalize Documentation:** Ensure that the final version of the SRS document and UML diagrams are well-organized, formatted according to the template, and meet the project's requirements.

8. Presentation and Submission

- **Prepare Presentation:** If required, prepare a presentation summarizing key aspects of your SRS and UML diagrams.

- **Practice and Feedback:** Practice the presentation with your team and seek feedback to refine it.
- **Submit Assignment:** Ensure that the final documents and any required presentation materials are submitted before the deadline.

End

Tips for Success

- **Effective Communication:** Maintain clear and open communication within the team.
- **Time Management:** Allocate sufficient time for each section of the project.
- **Adaptability:** Be prepared to make changes as new information or feedback is received.

Guideline for developing SRS and creating a high-level UML-based system

Project: Music Emoji App
Project Description: Music can change the mood of the listener however there are some days that you feel low or happy but don't know what music is suitable for your mood. This project will help you choose music based on your mood. This project aims to create a mobile app that will suggest music to play based on the user's mood. Using face recognition, the system will analyze the image and suggest music according to the mood shown in the image. This will also analyze the trend of the moods to give suggestions or tips on improving good mood and health.

Prepare

1. Understanding the Project Description

1.1. Read and Analyze

- **Project Scope:** The scope of the Music Emoji App project encompasses the development of a mobile application that uses facial recognition technology to analyze a user's mood and suggest music accordingly.
    - **Development of a Facial Recognition System:** Implementing an AI-based facial recognition system capable of accurately identifying a user's emotional state.
    - **Integration with Music Libraries:** Establishing a connection with music streaming services or building an in-app music library to provide music recommendations.
    - **Mood Analysis Algorithm:** Creating an algorithm that interprets facial recognition data to assess the user's mood.
    - **Mood Trend Analysis:** Analyzing mood data over time to track trends and provide insights into the user's emotional well-being.
    - **User Interface Design:** Designing an intuitive and user-friendly interface allows users to easily use the app, view their mood trend data, and listen to suggested music.
    - **Privacy and Data Security:** Ensuring the privacy and security of user data, particularly sensitive facial recognition data and mood analysis results.
- **Project Objectives**