**TUTORIAL 2**

***EXERCISE 1:*** Give an example of a software project

* Length: no more than an A4 page
* Content: which includes

1. Name of the project
2. Describe the project objectives (general and concrete)
3. Describe what is needed (resources, time, budget) for the project

**Project: A Simple To-Do List App**

**Project Objectives**

**General Objective:** To develop a user-friendly mobile application that helps users organize and manage their daily tasks efficiently.

**Concrete Objectives:**

1. **Task Creation and Management:** Users should be able to add, edit, and delete tasks.
2. **Task Prioritization:** Users should be able to assign priorities to tasks (e.g., high, medium, low).
3. **Task Deadlines:** Users should be able to set deadlines for tasks.
4. **Task Completion Tracking:** Users should be able to mark tasks as completed.
5. **Notification System:** The app should send reminders to users for upcoming deadlines.

**Resources Needed**

* **Development Team:** A team of developers (iOS and Android) with experience in mobile app development and user interface design.
* **Design Team:** A designer to create the app's user interface and user experience.
* **Project Manager:** A project manager to oversee the project's timeline, budget, and resource allocation.
* **Development Tools and Software:**
  + Xcode (for iOS development)
  + Android Studio (for Android development)
  + Version control system (e.g., Git)
  + Design tools (e.g., Figma, Adobe XD)
* **Testing Devices:** A variety of iOS and Android devices for testing the app's compatibility and functionality.

**Time and Budget**

**Time Estimate:** 3-4 months for development, testing, and deployment.**Budget Estimate:** (Dependent on team size, location, and complexity of features) Approximately $20,000 - $30,000.

**Note:** This is a rough estimate, and the actual time and budget may vary depending on specific project requirements and unforeseen challenges.

***EXERCISE 2:*** Identify objectives for the following software projects

* Project 1: Develop a mobile-banking system for ABC bank
* Project 2: Train customer officers to use a CRM system  
  *Note:* The objectives must be correctly and fully

**Project 1: Develop a Mobile-Banking System for ABC Bank**

**Objectives**

1. **Create a secure and user-friendly mobile application** that allows ABC Bank customers to access their accounts and perform various banking transactions.
2. **Implement essential banking features** such as account balance checks, fund transfers, bill payments, and checkbook reconciliation.
3. **Ensure the system's compatibility** with different mobile devices and operating systems (iOS, Android).
4. **Integrate robust security measures** to protect customer data and prevent unauthorized access, including encryption, multi-factor authentication, and fraud detection mechanisms.
5. **Provide a seamless user experience** with intuitive navigation, clear instructions, and responsive design.
6. **Offer additional value-added services** to enhance customer satisfaction, such as personalized recommendations, financial planning tools, and investment options.

**Project 2: Train Customer Officers to Use a CRM System**

**Objectives**

1. **Equip customer officers with the knowledge and skills** to effectively utilize the CRM system for managing customer interactions, data, and relationships.
2. **Improve customer service efficiency** by streamlining processes, enhancing communication, and providing personalized support.
3. **Foster a data-driven approach** to customer relationship management by leveraging CRM analytics to identify trends, opportunities, and areas for improvement.
4. **Ensure consistent adherence to CRM best practices** and guidelines to maintain data accuracy and integrity.
5. **Provide ongoing support and training** to address any questions or challenges encountered by customer officers during CRM usage.
6. **Measure and evaluate the effectiveness** of the training program through feedback, performance metrics, and customer satisfaction surveys.

***EXERCISE 3:*** Select the SDLC (software development lifecycle mode) in your software project (of *Exercise 1*)

**SDLC Mode Selection for the To-Do List App**

**Agile SDLC** is the most suitable mode for the To-Do List app project.

**Reasons:**

* **Iterative Development:** Agile emphasizes iterative development, allowing for continuous feedback and improvements throughout the project. This is ideal for a relatively small and straightforward app like a to-do list.
* **Flexibility:** Agile can adapt to changing requirements and priorities, which is common in software development, especially for smaller projects.
* **Faster Time-to-Market:** Agile can deliver working software increments more quickly than traditional waterfall methods, allowing for early user feedback and validation.
* **Reduced Risk:** Agile's iterative approach helps identify and address potential issues early on, reducing the risk of project failure.
* **Customer Involvement:** Agile encourages active customer involvement throughout the development process, ensuring that the final product meets their needs and expectations.

While other SDLC models like Waterfall or Spiral could be considered for larger or more complex projects, Agile's focus on flexibility, collaboration, and rapid delivery makes it the best fit for the To-Do List app.