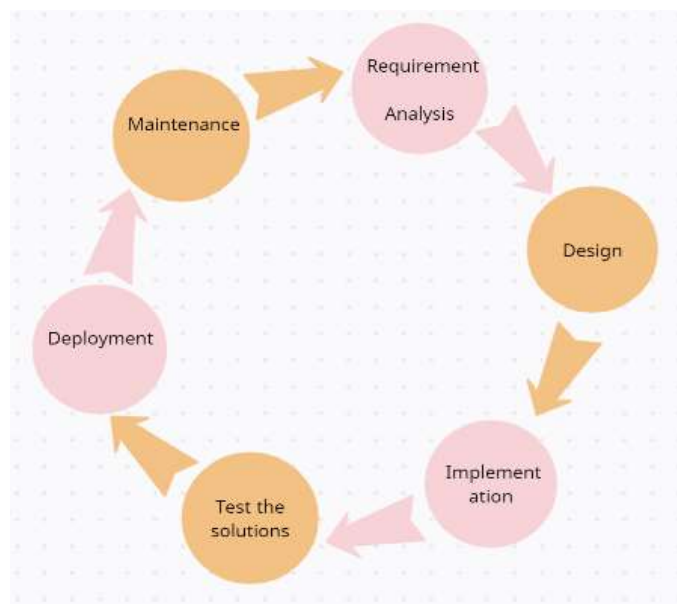


## ASSIGNMENT-1 (10/05)

**SDLC Overview - Create a one-page infographic that outlines the SDLC phases (Requirements, Design, Implementation, Testing, Deployment), highlighting the importance of each phase and how they interconnect.**

**Introduction:** The Software Development Life Cycle (SDLC) is a structured process that guides the development of software applications. It consists of several interconnected phases, each playing a crucial role in the success of the project.

Software Development Life Cycle (SDLC) Phases Diagram,



### 1. Requirements Analysis Phase:

- Importance: Setting clear objectives and understanding user needs.
- Activities: Gathering requirements, analyzing, prioritizing, and documenting.
- Connection: The foundation of the entire project, guiding design and development decisions.

### 2. Design Phase:

- Importance: Translating requirements into a detailed blueprint for the solution.
- Activities: Architectural design, UI/UX design, database design.
- Connection: Bridges the gap between requirements and implementation, ensuring alignment with user expectation.

### **3. Implementation Phase:**

- Importance: Turning design into a functioning system.
- Activities: Writing code, building features, integrating components.
- Connection: Directly transforms design concepts into tangible software, requiring collaboration between developers and designers.

### **4. Testing Phase:**

- Importance: Verifying that the software meets quality standards and fulfills requirements.
- Activities: Unit testing, integration testing, system testing, user acceptance testing.
- Connection: Validates the correctness and robustness of the implemented solution, feeding back into development for necessary adjustments.

### **5. Deployment Phase:**

- Importance: Releasing the software to users or clients.
- Activities: Installation, configuration, user training, rollout planning.
- Connection: Marks the culmination of the development process, transitioning the software from development to production environment.

### **6. Maintenance Phase:**

- Importance: Ensuring the continued functionality and performance of the software.
- Activities: Bug fixes, updates, enhancements, performance monitoring.
- Connection: Sustains the software's relevance and usability over time, addressing issues and evolving with changing requirements.

**Conclusion:** The SDLC phases form a comprehensive framework for managing software development projects from inception to maintenance. Understanding the importance of each phase and their interconnections is vital for delivering high-quality software that meets user needs and business objectives.