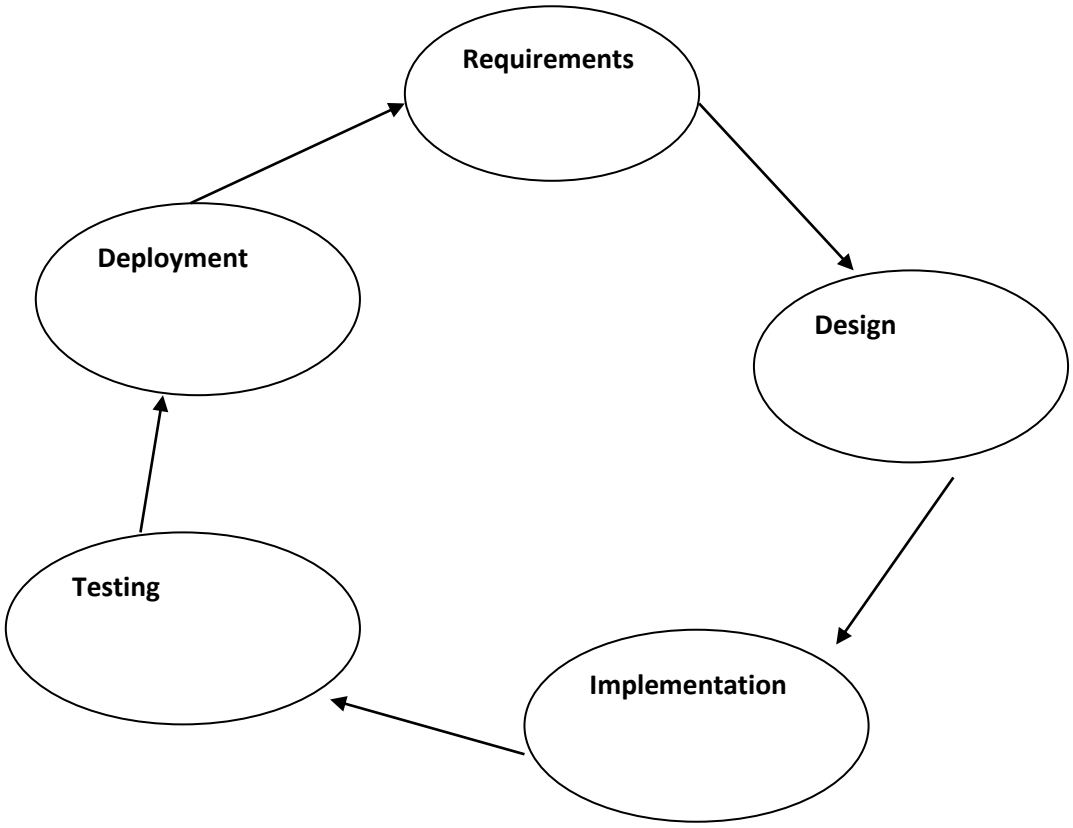
Assignment 1: SDLC Overview - Create a one-page infographic that outlines the SDLC phases (Requirements, Design, Implementation, Testing, Deployment), highlighting the importance of each phase and how they interconnect.

SOFTWARE DEVELOPMENT LIFECYCLE DIAGRAM :



SDLC Infographic : Navigating the Software Development Life Cycle

1. Requirements

Importance: This phase involves gathering detailed information from stakeholders to understand what the software should achieve. It sets the foundation for the project by defining functional and non-functional requirements.

Key Activities:

- Stakeholder Interviews
- Requirement Documentation
- Feasibility Analysis

Interconnection: Accurate requirements ensure that the design and implementation phases meet stakeholder expectations.

2. **Design**

Importance: Translating requirements into a blueprint for the software. This includes architectural design, user interface design, and detailed design of system components.

Key Activities:

- System Architecture Design
- Database Design
- User Interface Design

Interconnection: A well-thought-out design guides developers during implementation and helps identify potential issues early.

3. **Implementation**

Importance: The actual coding of the software based on the design specifications. This phase turns design documents into a working system.

Key Activities:

- Writing Code
- Developing Features
- Version Control Management

Interconnection: Proper implementation directly impacts the effectiveness of the testing phase and the final product quality.

4. **Testing**

Importance: Ensuring the software is free of defects and meets the specified requirements. Testing helps identify and fix bugs, improving software reliability and performance.

Key Activities:

- Unit Testing
- Integration Testing
- User Acceptance Testing (UAT)

Interconnection: Testing verifies that the implementation matches the requirements and design, ensuring a stable product for deployment

5. **Deployment**

Importance: Releasing the finished product to users. This phase involves setting up production environments and rolling out the software.

Key Activities:

- Environment Setup
- Data Migration
- Software Release

Interconnection: Successful deployment relies on thorough testing and accurate implementation, ensuring that users receive a functional and reliable product.

Interconnections and Iterations

Feedback Loops: Each phase often provides feedback for the previous ones, allowing for iterative improvement. For example, testing may reveal issues that require changes in implementation or even adjustments in design.

Continuous Improvement: Post-deployment, feedback from users can lead to new requirements, starting a new cycle of the SDLC to enhance and maintain the software.

Visual Elements to Include in the Infographic

Phases as Sections: Divide the infographic into five main sections for each SDLC phase.

Flow Arrows: Use arrows to show the flow from one phase to the next, highlighting the iterative nature of the SDLC.

Icons: Use relevant icons for each phase (e.g., a checklist for requirements, a blueprint for design, a code symbol for implementation, a bug for testing, a rocket for deployment).

Color Coding: Use different colors for each phase to make the infographic visually appealing and easy to follow.

Summary Points: Include bullet points or short descriptions under each phase title to summarize key activities and importance.