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

Software Development Life Cycle (SDLC)

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1. Requirements

- **Description**: Gather and analyze business needs and user requirements.
- **Importance**: Ensures all stakeholders have a clear understanding of what the software should achieve.
- **Key Activities**:
    - Stakeholder interviews
    - Requirement documentation
    - Feasibility analysis
- **Outcome**: Detailed Requirement Specification Document (RSD)

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2. Design

- **Description**: Create a blueprint for the system architecture and design.
- **Importance**: Provides a clear plan and structure to follow during development.
- **Key Activities**:
    - System architecture design
    - Database design
    - UI/UX design
- **Outcome**: Design Specification Document (DSD)

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3. Implementation

- **Description**: Actual coding and development of the software.
- **Importance**: Translates design documents into a functioning system.
- **Key Activities**:
    - Writing code
    - Code reviews
    - Integration
- **Outcome**: Working software modules

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4. Testing

- **Description**: Verify and validate the software to ensure it meets requirements and is free of defects.
- **Importance**: Identifies and fixes bugs, ensuring quality and reliability.
- **Key Activities**:
    - Unit testing
    - Integration testing
    - User acceptance testing (UAT)
- **Outcome**: Tested and validated software

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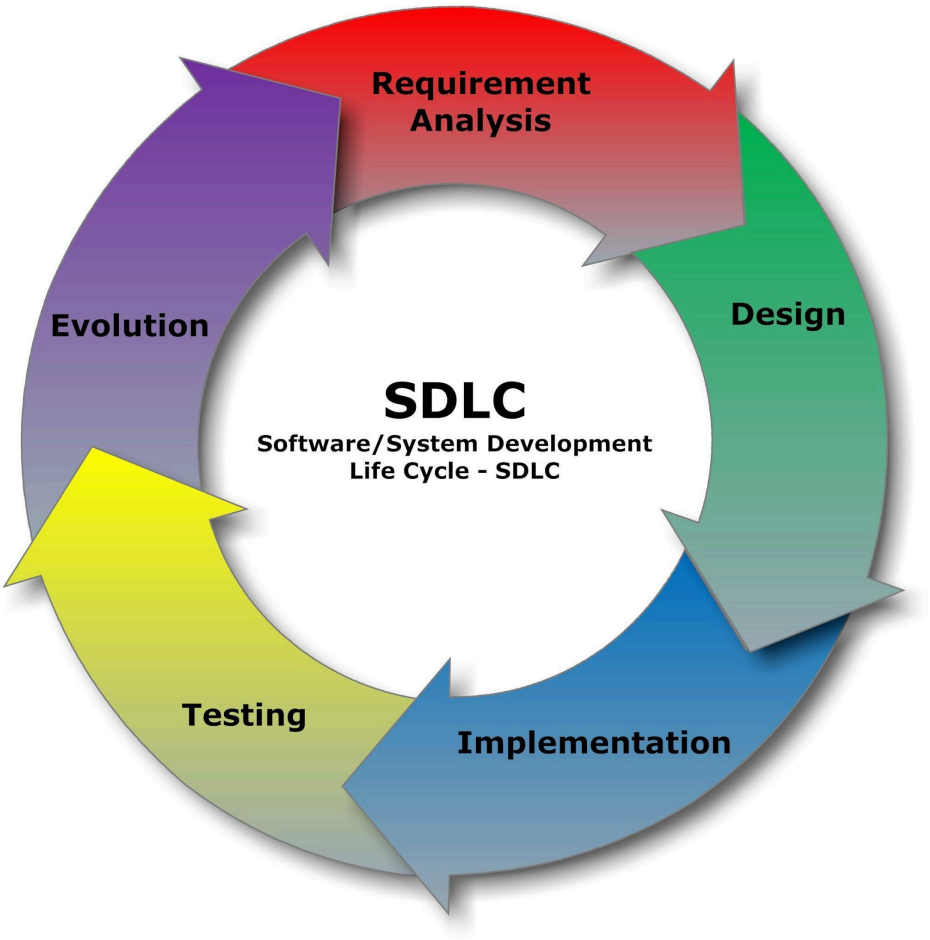
5. Deployment

- **Description**: Deliver the software to the production environment.
- **Importance**: Makes the software available for use by the end-users.
- **Key Activities**:
    - Deployment planning
    - Release management
    - User training and support
- **Outcome**: Deployed software in a live environment

How They Interconnect

- **Requirements -> Design**: Requirements inform the system architecture and design specifications.
- **Design -> Implementation**: Design documents guide the development and coding process.
- **Implementation -> Testing**: Developed code is tested against the requirements to ensure functionality.
- **Testing -> Deployment**: Once tested and validated, the software is deployed to the production environment.
- **Feedback Loop**: Post-deployment feedback may lead to new requirements, starting the cycle again for continuous improvement.


Requirement Analysis
Design
Implementation
Testing
Evolution
SDLC
Software/System Development Life Cycle - SDLC