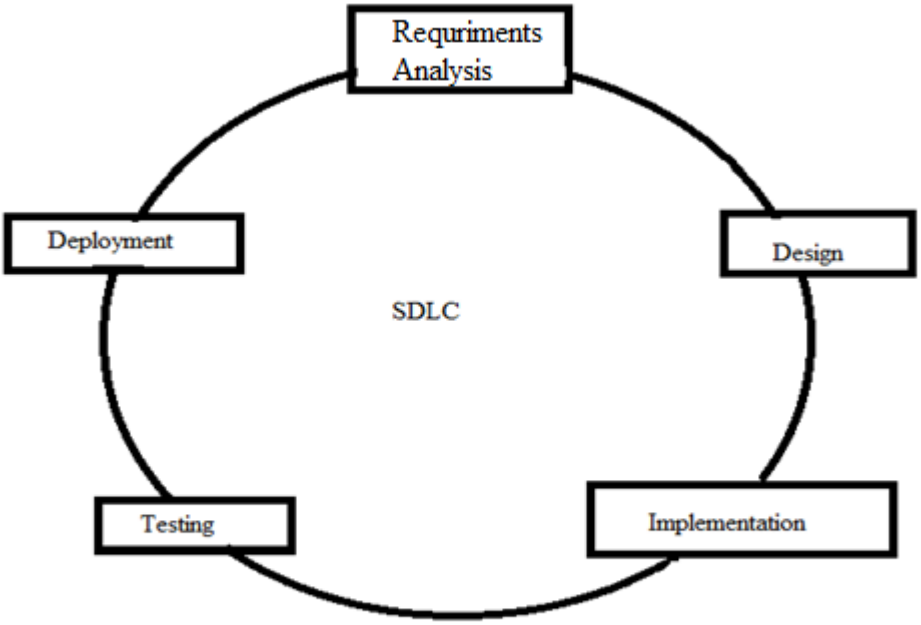
Assignment 1 - Create a one-page infographic that outlines the SDLC phases (Requirements, Design, Implementation, Testing, Deployment), highlighting the importance of each phase and how they interconnect.

SDLC OVERVIEW:



Requirement Analysis: Requirement analysis is the most important and fundamental stage in SDLC. Planning for the quality assurance requirements and identification of the risks associated with the project is also done in the planning stage.

Importance: Understand client needs & expectations.

Connection:

- Foundation for all subsequent phases.
- Guides design and development.

Designing: A design approach clearly defines all the architectural modules of the product along with its communication and data flow representation with the external and third party modules.

Importance:

- Create blueprints for software architecture.
- Plan user interface and user experience.

Connection:

- Translates requirements into technical specifications.
- Guides implementation phase

Implementation: The programming code is generated during this stage. If the design is performed in a detailed and organized manner, code generation can be accomplished.

Importance:

- Coding and development.
- Transform designs into functioning software.

Connection:

- Directly builds upon design phase.
-Feeds into testing phase

Testing: The testing activities are mostly involved in all the stages of SDLC. However this stage refers to the testing only stage of the product where products defects are reported, tracked, fixed and retested, until the product reaches the quality standards

Importance:

- Identify and fix defects.
- Ensure software meets requirements.

Connection:

- Validates implementation against requirements.
- Feedback loop with development for fixes.

Deployment: Once the product is tested and ready to be deployed it is released formally in the appropriate market. After the product is released in the market, its maintenance is done for the existing customer base.

Importance:

- Release software to users.

-Ensure smooth transition to production environment.

Connection:

- Culmination of development efforts.
- Feedback loop with maintenance phase.

Interconnectivity:

Continuous Feedback Loop: Each phase informs and influences the next.
Iterative Process: Feedback from testing influences subsequent development.

Cyclical Nature: Deployment often leads to maintenance and further iterations

Conclusion: A structured SDLC ensures efficient and effective software development, from understanding client needs to delivering quality products to users.