

## ASSIGNMENT

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.

### **Solution:-**

Each phase of the Software Development Life Cycle (SDLC) and their interconnections:

**Requirements:** This phase involves gathering and documenting the requirements for the software project. It's crucial for understanding what the software should accomplish and for setting expectations with stakeholders.

**Design:** In this phase, the system architecture and design are planned based on the gathered requirements. This includes creating diagrams, flowcharts, and prototypes to visualize how the software will function.

**Implementation:** Also known as the coding phase, implementation involves writing code based on the design specifications. Developers bring the design to life by writing and integrating the code for the software.

**Testing:** Once the implementation is complete, the software is rigorously tested to ensure it meets the specified requirements and functions as intended. Testing helps identify and fix any defects or issues before deployment.

**Deployment:** In the deployment phase, the software is released and made available to users. This involves installing, configuring, and deploying the software in the production environment. It's essential to plan and execute deployment carefully to minimize disruptions and ensure a smooth transition.

### **Interconnections:**

- Requirements drive the design phase, as the design is based on the gathered requirements.
- The design phase informs the implementation phase, providing guidelines and specifications for writing code.
- Testing is closely linked to both the implementation and design phases. Testing verifies that the implementation meets the design specifications and ensures that the software functions correctly.
- Deployment depends on the successful completion of all previous phases. The software must pass testing and meet the specified requirements before it can be deployed to production.