

## **Assignment 01: SDLC – Software Development Life Cycle**

### **1. Requirement Analysis**

- Understand what the user needs
- Define project goals, features & constraints
- Forms the foundation for all other phases

### **2. System Design**

- Convert requirements into technical architecture
- Design UI, database, modules & system workflow
- Acts as the blueprint for developers

### **3. Implementation (Coding)**

- Developers write the code based on design
- Each module is built, integrated, and refined
- Converts ideas into a real working system

### **4. Testing**

- Verify functionality, performance & security
- Detect and fix bugs before release
- Ensures the product meets user expectations

### **5. Deployment**

- Release the software for actual users
- Install, configure & launch in the real environment
- End-users start using the system

### **6. Maintenance**

- Fix issues, update features & improve performance
- Long-term support after deployment
- Ensures system remains reliable and up-to-date

#### **Flow:**

**Requirements → Design → Implementation → Testing → Deployment → Maintenance**

Each phase depends on the one before it, creating a continuous workflow.