

SDLC (Software Development Life Cycle) 1. Overview SDLC is a structured process used to design, develop, test, and deploy high-quality software. 2. SDLC Phases **1. Requirements**

**Gathering & Analysis**

- Identify business needs
- Stakeholder interviews
- Document requirements **2. Planning**

- Define project scope
- Create project timeline
- Risk analysis **3. Design**

- HLD & LLD
- Architecture diagrams
- UI/UX mockups **4. Development**

- Code implementation
- Unit testing **5. Testing**

- Integration testing
- System testing

**UAT 6. Deployment**

- Production release
- CI/CD automation **7. Maintenance**

- Bug fixing
- Performance monitoring 3. SDLC Models • Waterfall

- Agile
- V-Model
- Spiral

- Iterative 4. Conclusion SDLC ensures structured, predictable, high-quality software delivery.