Lesson 12

Systems Development Life Cycle

What is Systems Development Life Cycle (SDLC)?

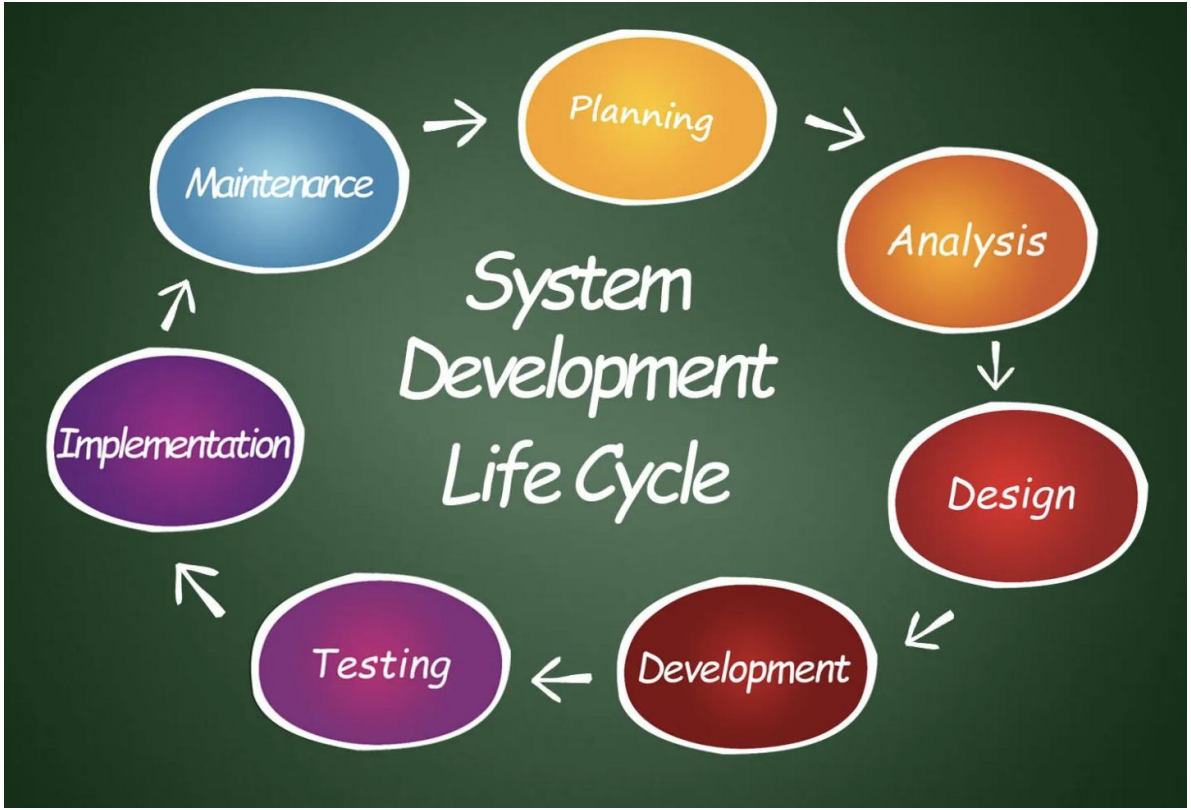
- **Structured** process for system development
- Ensures **consistency** and **quality**

Why SDLC Matters in Field Projects

- Helps **manage** project phases
- **Promotes** documentation and planning
- **Reduces** risk of failure

Phases of SDLC

- Planning
- Analysis
- Design
- Development
- Testing
- Implementation
- Maintenance



Planning Phase

- Define **scope** and **objectives**
- Conduct feasibility **study**
- Identify **timeline** and **resources**

Systems Analysis

- Gather user **requirements**
- Document current **problems**
- Analyze **needs** and **constraints**

Design Phase

- **Logical** design: inputs, outputs, data flows
- **Physical** design: architecture, hardware, interface

Development Phase

- Write code
- Build database
- Integrate components

Testing Phase

- **Unit** and **system** testing
- **Bug** fixing
- **User acceptance** testing (UAT)

Implementation / Deployment

- **Train** users
- **Migrate** data
- **Go** live

Maintenance & Support

- **Monitor** performance
- **Apply** updates
- **Fix** issues

SDLC Models

- Waterfall
- Agile
- Spiral
- Iterative

Applying SDLC in Field Projects

- **Structure** your report using SDLC
- **Document** each phase clearly
- Use SDLC terms to **describe** your process

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Q&A