CS-1st Year

Systems Analysis and Design

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System Development Life Cycle (SDLC)
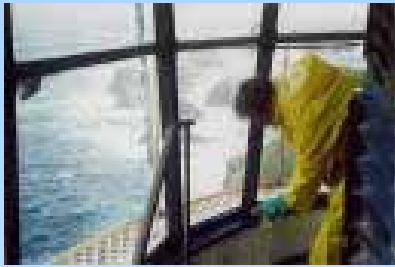
**Problem Definition**

System Analysis

Maintenance

System Testing

System Design

System Implementation

UCSC
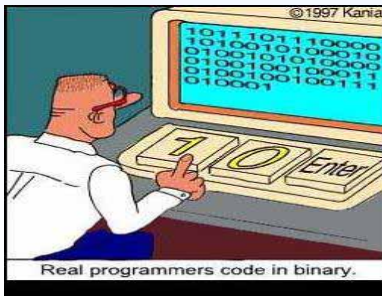
System Development Life Cycle (SDLC)

- A systematic approach to software development

- Composed of several phases,

  - **Problem Definition** - identifies and defines a need for the new system

  - **System Analysis** - analyzes the information needs of the end users

  - **System Design** - creates a blueprint for the design with the necessary specifications for the hardware, software, people and data resources

  - **System Implementation**- creates and programs the final system

  - **System testing** - evaluates the system's actual functionality in relation to expected or intended functionality.

  - **Maintenance** – keeping the system up to date with the changes in the organization and ensuring it meets the goals of the organization

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Why we need a life cycle in systems development?

- **to ease the process** of building a system

- **to build high** quality systems that meets customer expectations, within time and cost estimates

- **to work effectively** and efficiently in the current and planned information technology infrastructure

- **to avoid failures** like unclear objectives, cost overruns, and

- **to maintain** cheaply and **enhance** cost effectively