SYSTEM DEVELOPMENT LIFE CYCLE (SDLC)

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CONTENTS

- SDLC & Testing
- SDLC Models
- Reasons for using SDLC Models
- Advantages of choosing an appropriate SDLC Model.

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SLDC & TESTING

- **SDLC**
  - Stands for System Development Life Cycle
  - Be a framework that describe phase of software cycle and the order in which those phases are executed.
  - Each phase produces deliverables required by the next phase in the life cycle.

SDLC & TESTING

SLDC & TESTING

- **Requirement gathering and analysis.**

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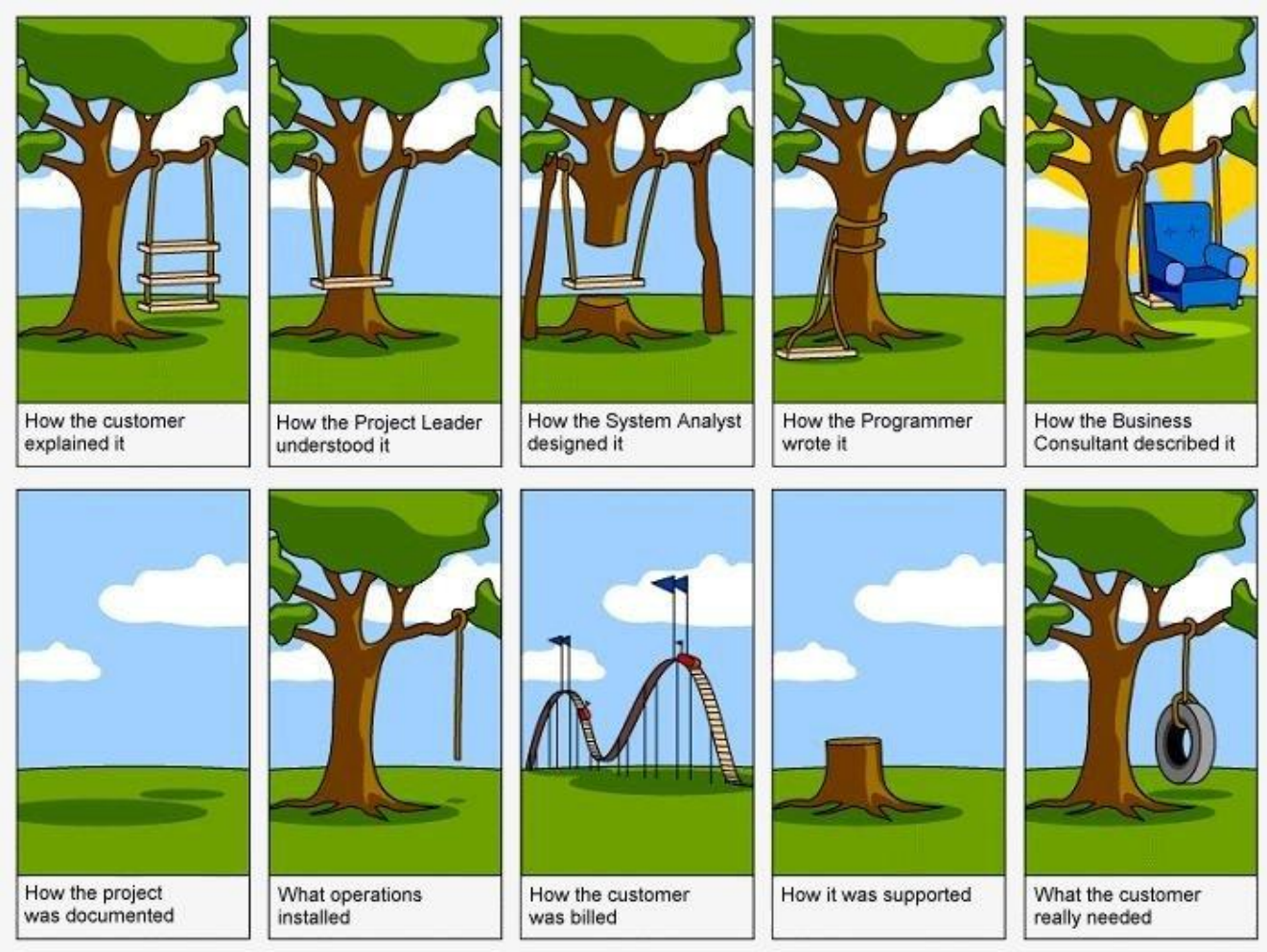

SLDC & TESTING

- **Requirement gathering and analysis.**
  - Main focus of project managers and stakeholders.
  - Meeting with managers, stakeholders and users to determine the requirements.
  - Outputs:
    - Project Mananagement Plan
    - Functional Requirements
    - Technical Requirements
    - Requirement Review and Approval
    - Statement of Work

SLDC & TESTING

- **Design.**
  - System and software design is prepared from the requirement specifications.
  - System Design helps in specifying hardware and system requirements
  - Define overall system architecture.
  - Outputs
    - High Level Design (HLD)
    - Low Level Design (LLD)
    - Design Review
    - Detailed Project Development.

SLDC & TESTING

- **Implementation & Coding.**
  - From system design documents, the work is divided in modules/units
  - Actual coding is started
  - Main focus for the developer.

SLDC & TESTING

- **Integration & Testing.**
  - After the code is developed, it is tested against the requirements,
  - All types of functional testing like unit testing, integration testing, system testing, acceptance testing are done
  - Non - functional testing are also done.

SLDC & TESTING

- **Installation & Deployment.**
  - After successful testing the product is delivered/deployed to the customer for their use.
  - Customers will first do the beta teting. → bug are caught and report to the engineering team.
  - Bugs fixed → final deployment will happen.

SLDC & TESTING

- **Maintenance**
  - Customers start using the developed system → actual problems come up → needs to be solved from time to time.

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SLDC MODELS

- To help understand and implement the SDLC phases, various SDLC models have been created by software development experts, universities and standard organizations.
- Some famous SDLC
  - Waterfall model
  - Spiral Model
  - V - model
  - Agile Model
  - ….

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REASONS FOR USING SDLC MODELS

- Provides basis for project planning, estimating & scheduling.
- Provides framework for standard set of terminologies, activities & deliverables
- Provides mechanism for project tracking & control.
- Increases visibility of project progress to all stakeholders.

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ADVANTAGES OF CHOOSING APPROPRIATE SDLC

- Increased development speed
- Increased product quality.
- Improved tracking & control
- Improved client relations
- Decreased project risk
- Decreased project management overhead.

Thank you!