Day 4 Notes

SDLC (Software Development Life Cycle)

SDLC is a structured process used to understand client requirements, develop software, test it, and deploy it for end users.

1. **Functional Consultant / Business Analyst (BA)**

Role:
Acts as a bridge between the business/client and the technical team.

Responsibilities:

- Understand business requirements from stakeholders
- Analyze the current process vs expected outcome
- Convert business needs into clear functional requirements

Functional Specification Document (FSD)

The BA prepares the FSD, which explains what the system should do.

FSD includes:

- System functionality
- Business rules
- User workflows
- Input and output requirements
- Validation rules (what is allowed / not allowed)
- Client expectations

FSD focuses on business logic, not technical coding details.

2. **Developer / Programmer**

Role:
Responsible for building the application based on the FSD.

Responsibilities:

- Create the Technical Specification Document (TSD) from the FSD
- Develop a POC (Proof of Concept) to test feasibility
- Implement business logic at the code level

- Perform unit testing

Technical Specification Document (TSD)

- Explains how the system will be built
- Covers technology stack, architecture, database, APIs, modules

3. Tester / QAT (Quality Assurance Team)

Role:
Ensure the application works correctly and meets requirements.

Responsibilities:

- Prepare t**est scripts**
- Execute test cases
- Document **test results**
- Identify bugs and coordinate fixes with developers

Servers Used in SDLC

1. Development Server

- Used by developers
  Unit testing is performed here

2. Quality (QA) Server

- Used by testers
- Multiple scenario and integration testing

3. Production Server

- Final live server
- Used by the client/end users
- Code is deployed after successful testing

4. Administration Team

- Manages servers, user access, security, backups

- Ensures system availability and performance

5. **Product / Project Manager / Management Team**

Responsibilities:

- Project planning
- Monitoring progress
- Controlling scope, cost, and timelines
- Coordinating between teams
- Ensuring project delivery

6. **Sales and Marketing Team**

- Communicate with clients
- Promote the product
- Gather customer feedback
- Support business growth

7. **HR**

   Manages the workforce involved in the project.

Responsibilities:

- Hiring and onboarding employees
- Allocating resources to projects
- Managing payroll, attendance, and leaves

8. **Documentation Team (FSD, TSD, Test script, Test result)**

Responsible for maintaining **all project-related documents**.

Documents handled:

- Functional Specification Document (**FSD**)
- Technical Specification Document (**TSD**)
- Test scripts
- Test results
- User manuals and release notes

Responsibilities:

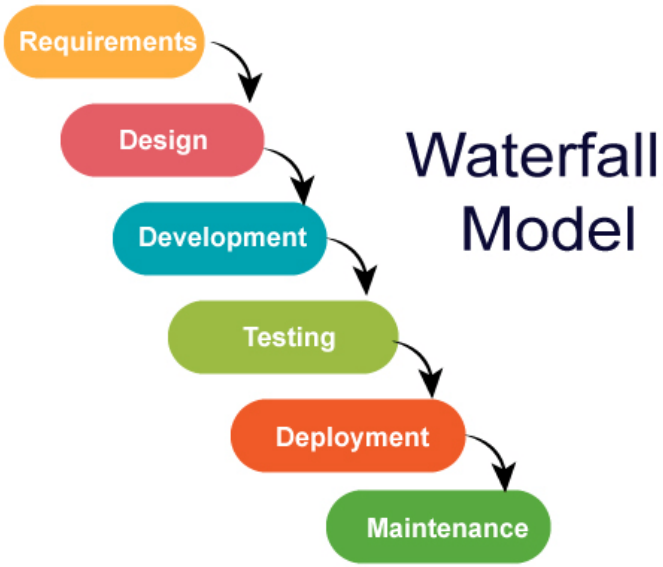
- Creating and updating documentation
- Ensuring accuracy and consistency
- Supporting knowledge transfer and audits

9. **Support Team**

Provides post-deployment support to clients and end users.

Responsibilities:

- Handling user issues and queries
- Bug reporting and coordination with development team
- Monitoring application performance
- Providing fixes, patches, and updates
- Ensuring smooth system operation



Agile Methodology
Agile is an iterative and flexible SDLC model where the product is developed in small cycles called sprints.

Agile Roles:

1. Product owner

    - Represents the customer/business
    - Defines and prioritizes **product backlog**
    - Communicates requirements to the team
    - Ensures maximum business value

2. Scrum master

    - Facilitates the Agile process
    - Removes obstacles (blockers)
    - Ensures Scrum rules are followed
    - Acts as a coach for the team

3. Development Team

    - Designing the solution
    - Developing the application
    - Testing features
    - Deploying increments at the end of each sprint