

Computer 1st Year

New Syllabus 2026

Chapter: 01

Lecture No: 03

**Introduction to Software
Development**

Topic Name:

**Software Development Life Cycle
(SDLC)**

Software Development Life Cycle (SDLC)

- The **Software Development Life Cycle (SDLC)** is a **framework** that guides organizations in creating software applications.
- It covers the entire process, from the idea and design to the deployment and maintenance of the software

Software Development Life Cycle (SDLC)

- The SDLC is a step-by-step method for building software that ensures the final product meets quality standards and works well.
- It guides software developers and engineers in designing, developing, and testing the software.

Goal of SDLC

- The main goal of SDLC is to develop **high-quality software** that:
- Meets customer needs and expectations.
- Is completed on time and within budget.
- Works properly and efficiently.

Stages / Phases in the (SDLC)

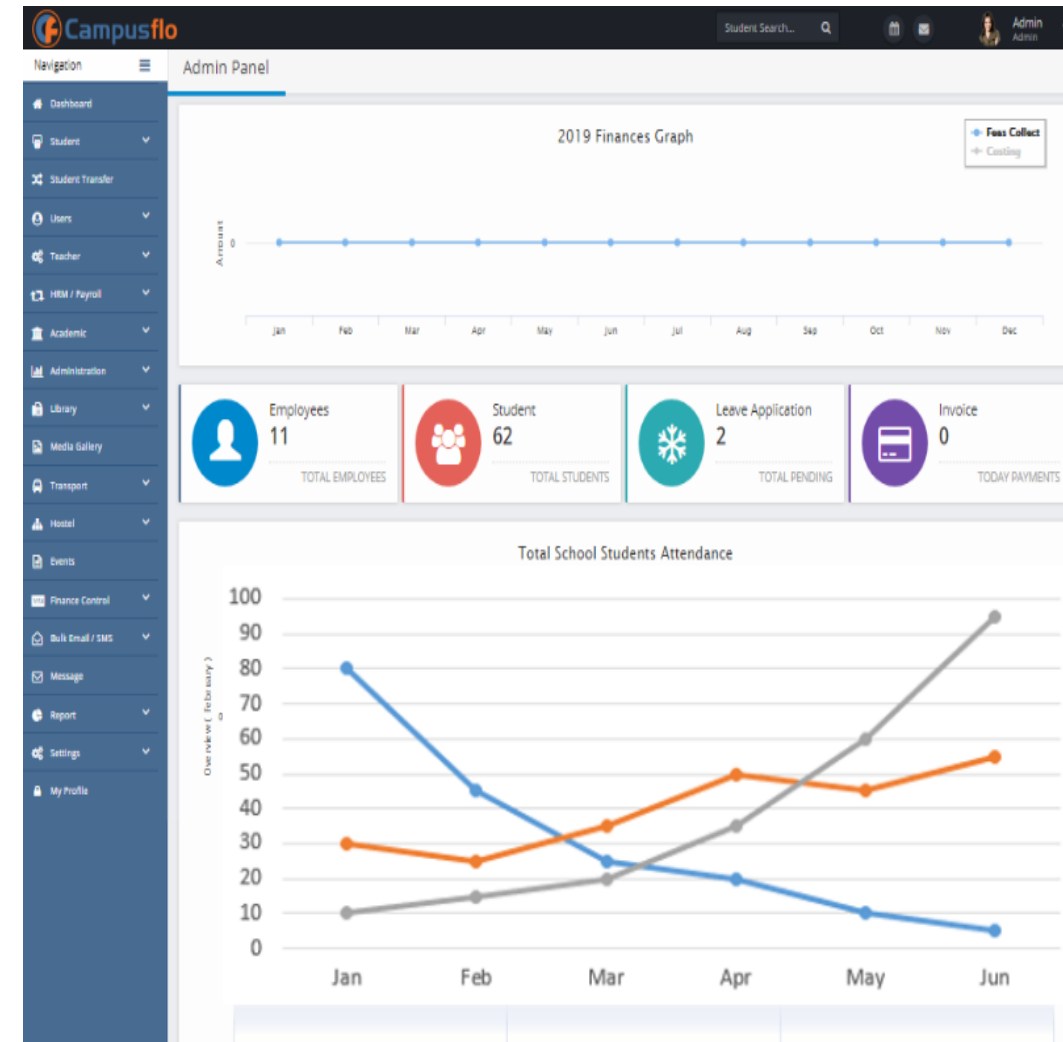
- **Requirement Gathering**
- **Design**
- **Coding / Development**
- **Testing**
- **Deployment**
- **Maintenance**

1. Requirement Gathering

- Requirement gathering is the first step in software development. In this step, we try to understand what the software should do.
- We collect information from people who will use the software and from others who are involved in the project.

Example Requirement Gathering

- If we are creating an app for a college, we ask students, teachers, and administrators about the features they need.

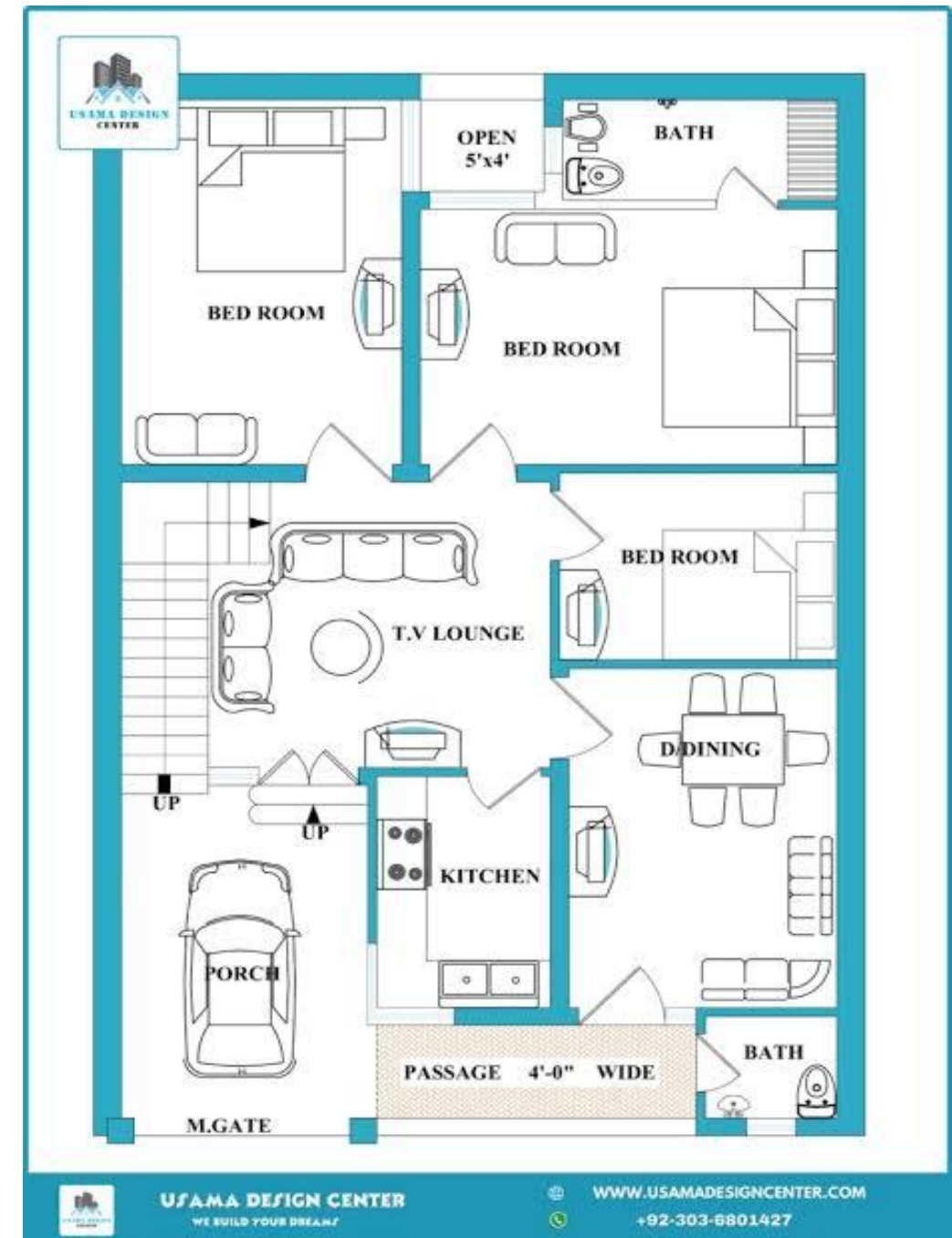


2. Design

- The design phase is about planning **how the software will look and work.**
- This phase helps in making the software clear, easy to use, and well-organized.

2. Design Example

- It is like drawing a plan before building a house.



3. Coding / Development

- The development phase is when the **actual software is created**.
- Programmers write code to build the software.
- This code is a set of instructions that the computer follows to perform specific tasks.

4. Testing

- Testing is the process of checking the software to **find and fix errors or bugs** before it is given to users.
- In this phase, the developed software is tested to make sure it works correctly, meets the requirements, and gives the correct output.

5. Deployment

- Deployment in SDLC means delivering the final software to the users so they can start using it.
- After the software has been tested and fixed, it goes to the deployment phase.
- Deployment means making the software ready for users to use.

6. Maintenance

- The **Maintenance Phase** is the stage where the software is **monitored, updated, and improved** after deployment.
- It ensures the system continues to work correctly and meets user needs.
- The maintenance phase is the final stage of software development.

Allah Hafiz

Subscribe my YouTube Channel:

Computer Tutorial Hub