SDLC INTRODUCTION

What is SDLC?

- SDLC stands for Software Development Life Cycle.
- By using SDLC we will be able to understand the requirement clearly and we can be able to produce high-quality software for the client.
- Understanding those requirements will help us to estimate the timeline, allocate the budget, and determine how many resources are needed for the project.
- SDLC contains a total of six phases and by following all of them, we can produce software that will meet the client's expectations.

Phases in SDLC:

- Requirement gathering and analysis
- Design
- Development
- Testing
- Deployment
- Maintenance

Requirement gathering and analysis:

- In this phase we will collect all the required information from the client. Based on the information from the client the project manager will create an SRS (Software Requirement Specification) document.
- The SRS document will be the output in this phase.

Design:

- Based on the SRS from the previous phase we will design the blueprint for the software, outlining its structure and functionalities.
- The low level and high-level designs are made in this phase.
- In this phase the output will be the design documents that contain the blueprint of the software.

Development:

- During the coding phase the actual implementation for the software takes place.
- The developers will start to write the source code according to the design document.
- After writing the code the developers will do a test on their own to check if there is any error in their code that testing is known as unit testing. After that the code will be sent to the next phase of testing.

Testing:

- In the testing phase, the testing team will test the code of the development team with various test cases. If the test's are passed it will be moved to the next phase.
- If there are some errors in the code, then the tester will make a detailed report and send it to the team lead or the project manager. Then the error code is rewritten by the developers. This process will continue until there is no error in the developed code.

Deployment:

- This phase will commence after all the codes are tested. In this we will deploy the code on the client's server.
- Then the code will be moved to the live production environment. In this phase we must make sure that there are no errors while moving the code to the production environment.

- After that the stakeholders and end users will be able to interact and use the software.
- If the deployment is successful then the client will sign the contract with close signature.

Maintenance:

- In the maintenance phase the developer has to check that software is running without any errors and ensure it functions effectively and meets the needs of its users.
- This will all happen after the project is delivered to the client.