

#### **Q.n. 4. Explain Software Development life Cycle.**

Ans:

It is a methodology which is used to develop, maintain and replace the systems.

It consists of different phases which are as following.

1. Problem Identification
2. Problem characteristics
3. Problem Specification
4. Analysis
5. Design
6. Build or Construction
7. System Testing
8. System Implementation
9. Maintenance

1. Problem Identification: Developers first, identify which product and what type of product they are going to build. They also identify the need for a new or enhanced system.
2. Problem characteristics: Here it is investigated some key information before building the software. They make an argument to users about their expectations and checks the feasibility of the development.
3. Problem Specification: After the identification of the problem, they specify the working performance of system, functionality of system and they also include the neediest things which their clients want.
4. Analysis: In this phase, the system requirements are studied and structured. This is one of the tough phase in developing a system.
5. Design: Here, as the description is physically and logically designed.
6. Build: This is the phase of construction. Here the software is built as per the design.
7. System Testing: Here, it is tested to see if it works exactly as per the specification. The performance with the user is also evaluated.

8. System Implementation: In this phase the software is tested, installed and supported in the organization.
9. Maintenance: This is generally the final phase in which the software is systematically repaired and improved. If there should be done any changes or add extra features, then it is done