**The Software Development Life Cycle**

1. Explain what SDLC is and why we use it.

* The term "SDLC" (Software Development Life Cycle) refers to an organised method of developing software that comprises a number of stages or phases. A framework for controlling the development process from the beginning to deployment and maintenance is provided by the SDLC. We employ the SDLC to make sure that software projects are finished on schedule, within the budget, and to the intended standard. We can systematically plan, design, build, test, and deploy software applications by using the SDLC.

2. Provide a general overview of what "Agile" means and compare it to Waterfall.

* Agile is a flexible, iterative approach to software development that prioritises customer happiness, teamwork, and adaptability to shifting requirements. It places a high importance on interacting with others, using useful software, working with customers, and being flexible when tools and procedures change. The Waterfall approach to software development, in contrast, calls for completion before moving on to the following phase. It implements a defined process and well-planned approach ahead of adaptation and flexibility.

3. Explain what SCRUM is and how it relates to agile.

* The agile software development framework SCRUM places a strong emphasis on teamwork, self-organisation, and ongoing progress. It includes a team working together to provide a functioning product steadily over brief periods of time called sprints. Daily communication and frequent progress reviews among team members allow them to adjust to shifting needs and improve their methodology.

4. Describe the process of requirements gathering.

* The process of defining, outlining, and ranking the features and functionalities that a software program must have in order to satisfy the demands of its customers is known as requirements gathering. Interviewing stakeholders, conducting surveys, examining business procedures, and developing use cases and user stories are frequently included in this approach.

5. Explain what a user story is, and what specific points it should include.

* A user story is a brief, straightforward description of a feature or operation that a user hopes to be able to carry out using a software program. A short summary of the user, the action they wish to perform, and the outcome they intend to obtain should all be included. The acceptance criteria should also specify how the user will know when the story is finished and meets their needs.

6. Describe what the backlog is and how it gets prioritized.

* The backlog is a prioritised list of technical tasks, problems, and user stories that the development team needs to work on. It should be regularly improved based on input from stakeholders, adjustments to business priorities, and advancements gained throughout development because it is constantly changing. Each item in the backlog is given a priority based on its business value and the amount of work needed to finish it.

7. Describe what a sprint is and the major parts of a sprint cycle.

* A sprint is a short, time-boxed development session that normally lasts two to four weeks. Sprint planning, daily scrums, sprint reviews, and sprint retrospective are the four main components of a sprint cycle. The team decides on a set of objectives and a strategy for them to reach throughout the sprint during sprint planning. The team members provide progress updates and handle any problems during daily scrums. The team presents the work they have done throughout the sprint to stakeholders during the sprint review and get feedback. The team reviews the sprint and looks for areas to improve during the retrospective

8. Describe what a wireframe is and what it accomplishes.

* A wireframe is a graphic illustration of the user interface of a software program that shows the fundamental structure and operation of each screen or page. It succeeds in a number of objectives, including defining requirements actually, improving stakeholder communication, and spotting possible usability problems. It is frequently produced by hand-drawing sketches or by using specialist software tools

9. Describe the structure of a daily scrum meeting.

* The development team holds a quick meeting each day to discuss progress, identify roadblocks, and schedule the day's work. Each team member shares what they completed yesterday, what they hope to do today, and any obstacles preventing their progress during the meeting, which usually lasts 15 minutes or less. The team members' alignment and commitment to their objectives are maintained by the daily scrum meetings.

10. Explain what Pivotal Tracker is and what problem it solves.

* Pivotal Tracker is an Agile project management application that supports stakeholder collaboration, backlog management, and tracking of task completion in sprints.