## **SDLC Chatbot**

- What is Waterfall model?
- The Waterfall model is a fundamental and straightforward approach to software development, which follows a linear and sequential process. It has five distinct phases: requirements, design, implementation, testing, and maintenance. This model is highly structured, making it easy to understand and use. However, once a phase seems to be completed, it cannot be changed, making the Waterfall model less flexible and less suitable for projects with changing requirements. The Waterfall model is considered a foundational approach to software development, but it is not in practice anymore due to its less flexible nature.
- When to use Agile model?
- Use the Agile model when quick adaptation to changing requests is required, especially in dynamic and fast-paced environments that may necessitate frequent alterations to the project.

  The Agile model's primary goal is to facilitate quick project completion with an emphasis on flexibility and adaptability.

Ask a question about SDLC...

- What are the key principles in Agile model?
- The Agile model in SDLC prioritizes individuals and interactions, working solutions, customer collaboration, and responding to change over rigid processes and documentation. These principles are outlined in the Agile Manifesto.
- What are the steps in Agile model?
- The Agile model, being a group of development processes, does not have strict steps like the Waterfall model. However, it generally follows the following principles and practices:
  - 1. Collaborate with the customer to create a prioritized product backlog.
  - 2. Estimate the effort required to implement each item in the product backlog.
  - 3. Plan sprints, typically of 1-4 weeks, to execute and deliver a working software increment.
  - 4. Perform daily stand-ups to sync the team and discuss progress.
  - 5. Continuously deliver working software at the end of each sprint.
  - 6. Inspect and adapt the product and process at the end of each sprint.
  - 7. Repeat the process, continuously improving, until the project is complete.

Each Agile methodology, such as Scrum, Kanban, or Extreme Programming (XP), may have additional practices or roles.

Ask a question about SDLC...

- What is the capital of Japan?
- 😑 I don't know.
- Describe the stages in SDLC.
- The Software Development Life Cycle (SDLC) consists of six stages:
  - 1. Requirement Gathering & Analysis: This stage involves identifying and documenting the customer's needs and requirements.
  - 2. System Design: In this phase, the system design is created based on the gathered requirements.
  - 3. Implementation or Coding: During this stage, the coding of software components begins according to the design.
  - 4. Testing: The newly developed software is tested for functionality, performance, and user experience.
  - 5. Deployment: Once the software has been tested, it is deployed to the production environment.
  - 6. Maintenance: After deployment, the software undergoes regular maintenance to fix bugs, improve performance, and update features as needed.

Ask a question about SDLC...