

Explain Iterative model of software development.

The iterative model is an approach to software development that involves breaking a project down into smaller, more manageable iterations or cycles.

Each iteration involves the development and testing of a subset of the software system's features.

The goal is to create a working prototype of the software system as early as possible and then refine it through successive iterations.

The iterative model is an adaptive approach that allows for changes to be made throughout the development process. This is particularly useful when the requirements for the software system are not fully understood at the beginning of the project, or when they are likely to change over time.

The iterative model typically involves the following steps:

1. **Planning:** In this phase, the software development team identifies the requirements for the software system and creates a plan for the development process. This may involve breaking the project down into smaller iterations, identifying the features to be developed in each iteration, and setting timelines and milestones.
2. **Requirements gathering:** In this phase, the software development team gathers and analyzes the requirements for the software system. This may involve interviewing stakeholders, analyzing existing systems, and creating use cases and user stories.
3. **Design:** In this phase, the software development team creates a high-level design for the software system. This may involve creating system architecture diagrams, designing the user interface, and identifying the components and modules that will be needed.

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4. Implementation: In this phase, the software development team builds the software system based on the design. This may involve coding, testing, and debugging the software.
5. Testing: In this phase, the software development team tests the software system to ensure that it meets the requirements and functions as expected.
6. Evaluation: In this phase, the software development team evaluates the results of the testing and makes any necessary changes or modifications to the software system.