

6/7/24 Software Engg Assignment - 2

1. Discuss Agile modeling approach in brief?

Agile modeling is an approach that promotes flexibility, collaboration and iterative development in software modeling process. It aligns with the principles of agile software development methodologies, such as Scrum and Kanban, emphasizing adaptability, customer feedback

Key Concepts of Agile modeling:

1. Iterative and Incremental Development

Models are developed and refined in small iterative cycles. Each iteration involves creating a simple model that can be expanded and improved in subsequent iterations.

2. Collaboration and Communications

Agile modeling encourages close collaboration among team members, including developers, designers, testers and stakeholders.

3. Simplicity and Flexibility:

Models are kept as simple as possible, focusing on the essentials needed to understand and solve the problem at hand.

4 Just Enough Modeling:

The goal is to create that are 'just enough' to support the task at hand. Over-modeling is avoided to prevent wasted effort and to maintain agility.

5 Continuous Feedback and Improvement:

Feedback is continuously sought from stakeholders and team members to improve the models.

Principles of Agile Modeling

1 Model with a Purpose:

Each model should have a clear goal and purpose. It should provide value and help solve a specific problem or clarify a particular aspect of the system.

2 Embrace Changes:

Agile models accept that requirements and understandings will change over time. Models should be adaptable to accommodate new insights.

3 Incremental and Evolutionary Approach:

Develop models in small increments allowing them to evolve as the project progresses and as more information becomes available.

4. Multiple models:

Use multiple models to represent different aspect of the system. No single model can capture all dimensions of a complex system.

5. High-Quality work:

Strive for high quality models that are accurate, clear and useful. Quality should not be sacrificed for speed.

Benefits of agile modeling

- Improved Flexibility

The ability to adapt to changes quickly helps ensure that the models remain relevant and useful throughout the project lifecycle.

- Enhanced Collaboration

Close collaboration and communication among team members and stakeholders lead to shared understanding and better alignment with project goals.

- Foster Feedback

Early and continuous feedback allows for quick corrections and improvements.

- 2 Analyse the given use case Scenarios and design UML model for the same

This project is basically an application which helps friends, colleagues or relatives who live at far off places plan a trip together to a place in optimal budget

Ans:- Primary use cases

- 1) Input Trip Details:- Input their current locations, starting date, and duration of the trip.
- 2) Submit Trip Details:- On submission, the application calculates and suggests destination based on total budget.
- 3) Customize Budget Factors:- Users can customize the factors included in the budget calculation.
- 4) View and Select Trip Options:- Users can view the trip options sorted by budget and select one.
- 5) Book flights:- Users can book flights directly from the application.
- 6) Additional Trip Services:- The application offers additional services like taxi bookings etc.

UML Design

User 1

User 2

Trip Planning App

- + Input Trip Details
- + Submit Trip Details
- + Customize Budget Factors
- + view and select Trip Options
- + Book Flights.

Class Diagrams.

