Software Engineering & Design

1. Remembering:

- Define the nature of software and its significance in various application domains.

- List the characteristics of legacy software and explain the challenges associated with maintaining and upgrading it.

- Describe the changing nature of software, including WebApps, Mobile Applications, Cloud Computing, and Product Line Software.

2. Understanding:

- Differentiate between functional and non-functional requirements in software engineering.

- Explain the importance of requirements engineering processes in software development.

- Describe the elements of a software requirements document and the process of requirements validation.

3. Applying:

- Utilize software design concepts such as abstraction, architecture, and modularity in designing software systems.

- Develop a software design model by applying object-oriented design principles and design classes.

- Estimate effort using techniques such as Function Points and COCOMO for project scheduling and staffing.

4. Analyzing:

- Analyze software testing strategies and environments for building an effective software testing process.

- Differentiate between various types of software testing and apply black box and white box testing techniques.

- Evaluate the software testing lifecycle and its importance in ensuring high-quality software products.

5. Evaluating:

- Assess software quality guidelines and attributes to ensure the quality of software products.

- Critically evaluate the importance of software process models in managing software development projects.

- Analyze the role of requirements management in the success of software projects.

6. Creating:

- Develop software requirements specifications based on requirements elicitation and analysis.

Design software systems using design concepts such as separation of concerns and information hiding.Implement software testing processes and techniques to ensure the reliability and effectiveness of software

applications.

Select Language

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