CLO1 Quiz 1

Slide 1 & 2

Multiple Choice Questions (MCQs)

1. **Which of the following is considered a major challenge in requirements engineering?**
    - a) Excessive documentation
    - b) Ambiguous requirements
    - c) Over-communication with stakeholders
    - d) Having too few requirements
      Answer: b) Ambiguous requirements
2. **What should requirements documentation emphasize?**
    - a) System architecture
    - b) User behavior and activities
    - c) Code structure
    - d) Hardware requirements
      Answer: b) User behavior and activities
3. **Which of the following costs are likely to be incurred due to requirements errors?**
    - a) Marketing expenses
    - b) Warranty costs
    - c) Recruitment costs
    - d) Training costs
      Answer: b) Warranty costs
4. **The process of determining the impact of a requirements change is a part of:**
    - a) Verification
    - b) Validation
    - c) Requirements analysis
    - d) Implementation
      Answer: c) Requirements analysis
5. **Which of the following is NOT a source of software requirements?**
    - a) Stakeholders
    - b) Documents

- c) Random data
- d) Existing systems
  Answer: c) Random data

6. **The requirement "The system shall support at least twenty transactions per second" is an example of:**
   - a) A functional requirement
   - b) A non-functional requirement
   - c) A domain requirement
   - d) An inverse requirement
     Answer: b) A non-functional requirement
7. **The IEEE defines a requirement as:**
   - a) A design constraint
   - b) A condition or capability to be met by a system
   - c) A detailed software function
   - d) A user manual guideline
     Answer: b) A condition or capability to be met by a system
8. **In requirements engineering, what is the role of validation?**
   - a) To check the system design
   - b) To ensure the software code is error-free
   - c) To confirm the accuracy and completeness of the requirements
   - d) To monitor project timelines
     Answer: c) To confirm the accuracy and completeness of the requirements
9. **Which statement best describes the term "gold plating" in requirements engineering?**
   - a) Overly specifying requirements
   - b) Adding unnecessary features to the software
   - c) Under-specifying requirements
   - d) Removing essential features
     Answer: b) Adding unnecessary features to the software
10. **"Minimal specification" in the context of requirements engineering refers to:**
    - a) A complete set of detailed requirements
    - b) Insufficient detail in requirements specification

- c) Maximum use of technical jargon
- d) Over-specification of requirements
  Answer: b) Insufficient detail in requirements specification

True/False Statements

1. **True or False:** The process of requirements elicitation involves gathering requirements from stakeholders.
   Answer: True
2. **True or False:** Requirements errors discovered later in the software development process are usually cheaper to fix.
   Answer: False
3. **True or False:** Functional requirements describe how the system should behave in different situations.
   Answer: True
4. **True or False:** Non-functional requirements often relate to the overall experience of using the system.
   Answer: True
5. **True or False:** A software requirement document can serve as a legal contract between a client and a developer.
   Answer: True
6. **True or False:** The primary focus of requirements engineering is on the design of the software system.
   Answer: False
7. **True or False:** Abstract statements of services or constraints are a type of software requirement.
   Answer: True
8. **True or False:** Domain requirements typically do not impose any constraints on the software solution.
   Answer: False
9. **True or False:** "Inverse requirements" describe what the system should do under certain conditions.
   Answer: False
10. **True or False:** A requirement specifying that "the system shall maintain records of all payments made to employees" is an example of a functional requirement.
    Answer: True

Version2

Multiple Choice Questions (MCQs)

1. **Which of the following best describes the purpose of requirements engineering?**
    - a) To create the final software design
    - b) To define what the software system should do without specifying how
    - c) To develop the software coding guidelines
    - d) To determine the software's deployment strategy
      Answer: b) To define what the software system should do without specifying how
2. **Which of the following would most likely cause a software project to fail?**
    - a) Clear statement of requirements
    - b) User involvement throughout the project
    - c) Changing requirements specifications
    - d) Strong executive management support
      Answer: c) Changing requirements specifications
3. **Which one of these is NOT considered a requirement source?**
    - a) Stakeholders
    - b) System logs
    - c) Domain experts
    - d) Existing documentation
      Answer: b) System logs
4. **What is the primary difference between validation and verification in software requirements?**
    - a) Validation checks the system design; verification checks user needs.
    - b) Validation ensures the system meets user needs; verification checks if the system was built correctly.
    - c) Validation is done by developers; verification is done by clients.
    - d) Validation occurs after implementation; verification happens during testing.
      Answer: b) Validation ensures the system meets user needs; verification checks if the system was built correctly.
5. **Which of the following is a key challenge in writing user requirements?**
    - a) Creating overly specific technical specifications

- b) Addressing the needs of all user classes
- c) Ensuring the document is written in code
- d) Minimizing the use of diagrams
  Answer: b) Addressing the needs of all user classes

6. **The requirement "The system shall not display ads in the user interface" is an example of:**
   - a) A functional requirement
   - b) A non-functional requirement
   - c) An inverse requirement
   - d) A domain requirement
     Answer: c) An inverse requirement

7. **Which of the following is often considered more critical, yet harder to measure quantitatively?**
   - a) Functional requirements
   - b) Non-functional requirements
   - c) Inverse requirements
   - d) User interface design
     Answer: b) Non-functional requirements

8. **What is the primary role of domain requirements?**
   - a) To specify legal constraints
   - b) To define the software's functional architecture
   - c) To reflect fundamental characteristics of the application domain
   - d) To describe the user interface
     Answer: c) To reflect fundamental characteristics of the application domain

9. **Why are non-functional requirements sometimes written as goals?**
   - a) Because they are easier to verify
   - b) Because they are difficult to quantify
   - c) Because they are less important than functional requirements
   - d) Because they do not affect the system's performance
     Answer: b) Because they are difficult to quantify

10. **The process of creating a requirements document that both drives the design stage and serves as a basis for testing is known as:**
    - a) Requirements specification

- b) Requirements elicitation
- c) Requirements validation
- d) Requirements analysis
  Answer: a) Requirements specification

True/False Statements

1. **True or False:** The requirements engineering process only includes the initial gathering of requirements.
   Answer: False
2. **True or False:** Incomplete requirements and specifications are one of the leading causes of software project failure.
   Answer: True
3. **True or False:** Verification and validation are identical processes in requirements engineering.
   Answer: False
4. **True or False:** Non-functional requirements typically relate to the behavior of the system under specific conditions.
   Answer: False (They relate to overall system attributes like performance and security)
5. **True or False:** The term "gold plating" in requirements engineering refers to under-specifying critical features.
   Answer: False
6. **True or False:** Domain requirements are usually easy to identify and specify.
   Answer: False
7. **True or False:** Functional requirements describe what the system should do, while non-functional requirements describe how the system performs certain functions.
   Answer: True
8. **True or False:** Requirements errors are usually more expensive to fix during the design phase than during the testing phase.
   Answer: False
9. **True or False:** "Minimal specification" refers to the practice of over-specifying system requirements.
   Answer: False
10. **True or False:** Inverse requirements can sometimes reflect indecision or uncertainty from the client.
    Answer: True