

# 16 Lecture - CS101

## Important Mcqs

1. **What is data abstraction in software development?**
- a) The process of revealing implementation details to the user
  - b) The process of hiding implementation details from the user
  - c) The process of optimizing software for speed
  - d) The process of documenting software code

**Answer: b) The process of hiding implementation details from the user**

2. **How does data abstraction help in managing complexity?**
- a) By revealing implementation details
  - b) By making the code more complicated
  - c) By providing a simplified view of the system
  - d) By slowing down the software system

**Answer: c) By providing a simplified view of the system**

3. **What are abstract data types?**
- a) Data types that are not used in programming
  - b) Data types that can only be used in one programming language
  - c) Data structures that encapsulate data and operations
  - d) Data structures that are not used in programming

**Answer: c) Data structures that encapsulate data and operations**

4. **Which programming paradigm uses classes and interfaces for data abstraction?**
- a) Functional programming
  - b) Procedural programming
  - c) Object-oriented programming
  - d) Imperative programming

**Answer: c) Object-oriented programming**

5. **What is modular programming?**
- a) A programming paradigm that uses functions and procedures
  - b) A programming paradigm that focuses on speed optimization
  - c) A programming paradigm that focuses on revealing implementation details
  - d) A programming paradigm that doesn't use abstraction

**Answer: a) A programming paradigm that uses functions and procedures**

6. **How does data abstraction help in improving software quality?**
- a) By making the code more complex
  - b) By reducing the likelihood of errors and bugs

- c) By slowing down the software system
- d) By making it difficult to maintain the software system

**Answer: b) By reducing the likelihood of errors and bugs**

**7. What are APIs?**

- a) Sets of functions or methods that can be used to interact with a software system
- b) Sets of data structures that encapsulate data and operations
- c) Sets of programming paradigms
- d) Sets of optimization techniques for software systems

**Answer: a) Sets of functions or methods that can be used to interact with a software system**

**8. What is the role of libraries in data abstraction?**

- a) Libraries provide pre-built code that can be used to perform specific tasks
- b) Libraries provide a simplified view of the software system
- c) Libraries provide a detailed view of the software system
- d) Libraries provide only data structures for use in programming

**Answer: a) Libraries provide pre-built code that can be used to perform specific tasks**

**9. How does data abstraction make software systems easier to use for end-users?**

- a) By revealing implementation details
- b) By making the software system more complex
- c) By providing a simplified view of the software system
- d) By slowing down the software system

**Answer: c) By providing a simplified view of the software system**

**10. What is the difference between data abstraction and data encapsulation?**

- a) Data abstraction is the process of hiding implementation details, while data encapsulation is the process of combining data and methods into a single unit
- b) Data abstraction and data encapsulation are the same things
- c) Data abstraction is the process of revealing implementation details, while data encapsulation is the process of hiding implementation details
- d) Data abstraction is not used in programming

**Answer: a) Data abstraction is the process of hiding implementation details, while data encapsulation is the process of combining data and methods into a single unit**