

QUIZ 1

1. Which of the following is not true about class and object?

- a. An object is instantiated from a class as an instance of the class
- b. **Two object instances of the same class share the same properties, behavior and object identity**
- c. An object has state but a class does not
- d. Each object instance has a unique object identity
- e. A class is a logical grouping of objects that share the same properties and behaviour

2. Which of the following is not true about 'Encapsulation'?

- a. Hides the object state so that it can only be accessed through its public interface (methods)
- b. Restricts access to an object which means that changes to the internal implementation of the class does not affect other parts of the application or clients accessing the class
- c. Increases the reusability of a class
- d. **Helps to reduce the complexity of a class**
- e. Preserves the object state

3. Which one of the following is not true about domain modelling?

- a. Provide a visual representation of the problem domain by decomposing the domain into key concepts or objects and identifying the relationships between them.
- b. Domain modelling and requirements analysis are mutually dependent on each other
- c. Fosters a shared unambiguous understanding of the problem domain among developers and stake holders
- d. Determines how the elements of the "system-to-be" collaborate to deliver the behavior promised by the "system-to-be"
- e. **Domain modelling is an alternative to use-case modelling in the requirements engineering phase**

4. Which of the following is not true about Inheritance?

- a. Defines a "is-a" type of relationship between two classes
- b. The derived class can extend the parent class and override the behavior in the parent class
- c. If Bird and Pet are two classes, then the definition: `class Parrot(Bird,Pet)` in Python is an example of multiple inheritance
- d. **A core object oriented principle that aims to reduce the dependency between two classes**
- e. If Bird is a class, `class Pet(Bird)` is an example of single inheritance

5. Which one of these represents a non-functional requirement?

- a. The application must suspend further access, if the user enters the PIN incorrectly three times
- b. **The application must have a response time of no later than 3 seconds**

- c. The online learning platform must enable students to download files uploaded by lecturers
- d. A receipt can be printed upon request
- e. Upon logging in, the user is presented with an option to book a flight or accommodation or both

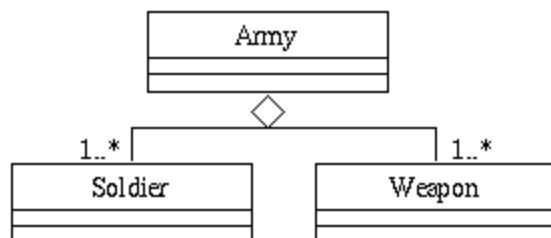
6. Which of the following is likely to represent a composition relationship?

- a. A university employs a professor
- b. A cricket stadium with a pitch and seats**
- c. A rugby team has a set of players
- d. A library consisting of several books
- e. A car has four wheels

7. The ability to describe and trace the life of a requirement throughout the software development process from its inception to its actual deployment is referred to as:

- a. Requirements Elicitation
- b. Requirements Specification
- c. Requirements Traceability**
- d. Test-Driven Development
- e. Requirements Validation

8. Which of the following is a correct interpretation of the UML diagram below?



- a. An army is associated with 1 more soldiers and 1 or more weapons
- b. An Army is a composition of one or more soldiers and one or more weapons
- c. An army is an aggregate of 0 or more soldiers and 0 or more weapons
- d. Soldier and Weapon can be described as types of the base class Army
- e. An Army is an aggregate of one or more soldiers and one or more weapons**