

OOP Inheritance, Virtual classes — Quiz (Easy)

Auto-generated quiz (easy) for OOP Inheritance, Virtual classes

Subject: OOP Inheritance, Virtual classes

Assessment Type: Quiz

Difficulty Level: Easy

Total Questions: 6

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Question 1 [1 marks] (easy)

What OOP concept allows code to be reused between related types by defining hierarchies of classes?

Question 2 [1 marks] (easy)

Which type of function in a base class requires all derived classes to provide their own implementation, often when the base class itself has no meaningful default?

Question 3 [1 marks] (easy)

In Object-Oriented Programming (OOP), what is the primary purpose of inheritance?

- A. Grouping related data and functions together
- B. Allowing a value to be one of several types at runtime
- C. Allowing code to be reused between related types
- D. Defining an interface to objects

Question 4 [2 marks] (easy)

What is the effect of declaring a function as 'pure virtual' in a base class?

- A. It provides a default implementation for derived classes.
- B. It makes the base class abstract, requiring derived classes to implement the function.
- C. It prevents the function from being overridden by derived classes.
- D. It makes the function accessible only within the base class.

Question 5 [2 marks] (easy)

Consider a base class `Vehicle` and a derived class `Car`. If `vPtr` is a `Vehicle*` pointing to a `Car` object, and `getDesc()` is a non-virtual method overridden in `Car`, which version of `getDesc()` will be called by `vPtr->getDesc()`?

- A. The `Car` version of `getDesc()`
- B. A compile-time error will occur
- C. The `Vehicle` version of `getDesc()`
- D. A runtime error will occur

Question 6 [1 marks] (easy)

According to the principles of inheritance, which action is NOT allowed when defining a derived class from a base class?

- A. Overriding methods present in the base class
- B. Adding new member variables to the derived class
- C. Removing functionality that was present in the base class
- D. Adding new methods specific to the derived class