

* Interface *

* Assignment Solutions *

Q.1 What is an interface in Java?

Ans-1 An Interface in Java is a Mechanism that is used to achieve Complete abstraction. It is basically a kind of class that contains only constants and abstract methods.

Q.2 Which Modifiers are allowed for Methods in an interface? Explain with an example.

Ans-2 only abstract and public modifiers are allowed for methods in interfaces.

Q.3 What is the use of interface in Java?

Ans-3 There are many reasons to use interfaces in Java. they are as follows:

(a) An Interface is used to achieve full abstraction.

(b) By using interface, we can achieve the

functionality of Multiple interface.

(c) programmers use interfaces to custom-ize features of Software differently for different objects.

(d) using Interface is the best way to expose our project's API to some other project.

Q.4 What is the difference b/w abstract class and interface in Java?

* Abstract Class *

(1) Abstract Class can have abstract and non-abstract methods.

(2) Abstract Class doesn't support multiple inheritance.

(3) Abstract class can have final, non-final, static and non-static variables.

* Interface *

(1) Interface can have only abstract methods. Since Java 8, it can have default and static methods also.

(2) Interface supports multiple inheritance.

(3) Interface has only static and final variables.

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| (4) Abstract Class can provide the implementation of interface | (4) Interface can't provide the implementation of abstract class. |
| (5) The abstract keyword is used to declare abstract class. | (5) the interface keyword is used to declare the interface. |
| (6) An abstract class can extend another Java class and implement multiple Java interface | (6) In interface can extend another Java interface only. |
| (7) An abstract class can be extended using the keyword "extends". | (7) An interface can be implemented using the keyword "implements". |
| (8) A Java abstract class can have class members like private, protected, etc. | (8) Members of a Java interface are public by default. |
| (9) Example:
<pre> public abstract class Shape { public abstract void draw(); } </pre> | (9) example:
<pre> public interface Drawable { void draw(); } </pre> |