Assignment No:-23

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1. What is a constructor in Java?

Ans: constructor is same as a method. Constructor is a block of code that same as a method.

Constructor has same name as a class name. No need to call constructor explicitly when instance of class is created then constructor is invoked. Constructor has no return type even not use void. Constructor is used to initialise the instance variable. Constructor is also called as special method. If user cannot declare constructor in our program then compiler can provide the default constructor.

2. Explain the purpose of a constructor in a Java class.

Ans: The purpose of a constructor is to set the initial state of an object, such as setting default values or performing calculations.

3. Differentiate between a constructor and a method in Java.

Ans: A constructor has no return type (not even void), while a method has a return type. Constructors are called when an object is created, while methods are called on an existing object.

4. Can a class have multiple constructors in Java? If yes, explain the concept

Of overloading in this context.

Ans: Yes, a class can have multiple constructors. This is called overloading, where each constructor has a different parameter list.

5. What is the default constructor in Java, and when does it get invoked?

Ans: A constructor which provides by java compiler it is called default constructor. (If we write any of constructor in your code then compiler does not provide default constructor).It calls a default constructor if there is no constructor available in the class. In such case, Java compiler provides a default constructor by default.

That is automatically generated If no other constructors are defined. It sets all fields to their default values.

6. Explain the role of the this keyword in a constructor.

Ans: this keyword is used to refer the current class attribute (state, behaviour) this keyword is used to refer the current class instance variable. It can be used to call another constructor or to access fields.

7. How is a parameterized constructor different from a default constructor?

Ans: A parameterized constructor takes arguments, while a default constructor does not.

8. Can a constructor have a return type in Java? Why or why not?

Ans: No, a constructor cannot have a return type, not even void.

9. What is the significance of the super () statement in a constructor?

Ans:

10. How can you invoke one constructor from another within the same class?

Ans: Use the this () statement to call another constructor in the same class.

11. What is the purpose of a copy constructor in Java?

Ans: A copy constructor creates a new object as a copy of an existing object.

12. How can you create an object without invoking a constructor explicitly in Java?

Ans: No, a constructor must be called to create an object.

13. Explain the concept of a static constructor in Java.

Ans:

14. Discuss the role of the final keyword in the context of constructors

Ans:

13. How does the order of constructor invocation work in the case of inheritance?

Ans: Constructors are called in the order of inheritance, from superclass to subclass.

16. What is the purpose of the this() constructor call in Java?

Ans: The this() statement calls another constructor in the same class.

17. Can a constructor be declared as private or protected? If yes, provide examples.

Ans: Yes, a constructor can be declared as private or protected.

protected Animal()

private Singleton()

18. Explain the term "constructor chaining" and its significance in Java.

Ans: Constructor chaining is the process of calling one constructor from another in the same class.

19. Discuss the role of the try, catch, and finally blocks in exception handling within a constructor.

Ans:

20. Can a constructor be declared as abstract in Java? If yes, explain the implications.

Ans: No, a constructor cannot be declared as abstract.