1.What is method overloading?

If a class has multiple methods having same name but different in parameters, it is known as method overloading.

It increases the readability of program.

Example:

Class demo{

static int add(int a,int b){

return a+b;

}

Static int add(int a,int b,int c){

return a+b+c;

}

Class Overloding{

Public static void main(String args[]){

System.out.println(demo.add(10,10));

System.out.println(demo.add(10,10,10));

}

}

2.Is inheritance is achieved by method overriding?

The ability of a subclass to override a method allows a class to inherit from a superclass whose behavior is close enough and then to modify behavior as needed. The overriding method has the same name, number and type of parameters, and return type as the method that it overrides.

3.How data encapsulation is achieved?

 Declaring the variables of a class as private. Providing public setter and getter methods to modify and view the variables values.

4.what is static?

Static variables are shared among all objects.

Static variable is like a global variable and is available to all methods.

Why static?

To efficiently manage memory

Throw:

It is throwing an exception explicitly which is the best method to handle the exception and it can handle one exception at a time.

Throws:

It is used as a method signature which can handle multiple exception.

What is Multithreading?

**Multithreading java** is a process of executing multiple threads simultaneously.A thread is a lightweight sub-process, the smallest unit of processing. Multiprocessing and multithreading, both are used to achieve multitasking.

Life cycle of an thread?

1. New
2. Active
3. Blocked / Waiting
4. Timed Waiting
5. Terminated

|  |  |
| --- | --- |
| List | Set |
| The List is an ordered sequence. | The Set is an unordered sequence. |
| . List allows duplicate elements | Set doesn’t allow duplicate elements. |
| Set doesn’t allow duplicate elements. | Null element can store only once. |
| List implementations are ArrayList, LinkedList, | Set implementations are HashSet, LinkedHashSet. |

What is throwable class?

The Throwable class is the superclass of all errors and exceptions in the Java language. Only objects that are instances of this class are thrown by the Java Virtual Machine or can be thrown by the Java throw statement.

Is multiple inheritance is possible in java?

The Java programming language supports multiple inheritance of type, which is the ability of a class to implement more than one interface. An object can have multiple types: the type of its own class and the types of all the interfaces that the class implements.

What are functions JVM does?

A specification where working of Java Virtual Machine is specified. But implementation provider is independent to choose the algorithm. Its implementation has been provided by Oracle and other companies.

An implementation Its implementation is known as JRE (Java Runtime Environment).

Runtime Instance Whenever you write java command on the command prompt to run the java class, an instance of JVM is created.

What is typechecking?

Type checking is the activity of providing that the operands of an operator are of compatible types.

What is safecode and unsafe code?

safe code in Java refers to code which can safely be used or shared in concurrent or multi-threading environment and they will behave as expected. any code, class, or object which can behave differently from its contract on the concurrent environment is not thread-safe

what is typecasting?

Type casting is when you assign a value of one primitive data type to another type

Final:

When a variable is declared with *final* keyword, its value can’t be modified and it is constant. If the final variable is a reference. you can add or remove elements from the final array It is good practice to represent final variables in all uppercase.

Private:

private is a Java keyword which declares a member's access as private. That is, the member is only visible within the class. The visibility of private members extends to nested classes.

Protected:

The protected keyword is an access modifier for method and variable of a class. When a method or a variable is marked as protected Within the enclosing class.

What is Instance?

Instance variables are created when an object is created with the use of the keyword 'new' and destroyed when the object is destroyed. Instance variables hold values that must be referenced by more than one method state that must be present throughout the class.

Static Constructor?

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Copy Constructor?

A copy constructor in a Java class is **a** constructor that creates an object using anotherobject of the same Java class. That's helpful when we want to copy a complex object that has several fields, or when we want to make a deep copy of an existing object

Constructor Chaining?

In Java, **constructor chaining** is a sequence of invoking constructors upon initializing an object. It is used when we want to invoke a number of constructors, one after another by using only an instance.