Session-1

1. What is Java?

It is an object oriented, platform independent, case sensitive, strongly typed checking, high level open source programming language developed by James Gosling in the year of 1995.

Or

Java is a versatile programming language which is used to develop various applications like distributed applications, enterprise applications, ERP applications, Web applications, Mobile applications and etc.

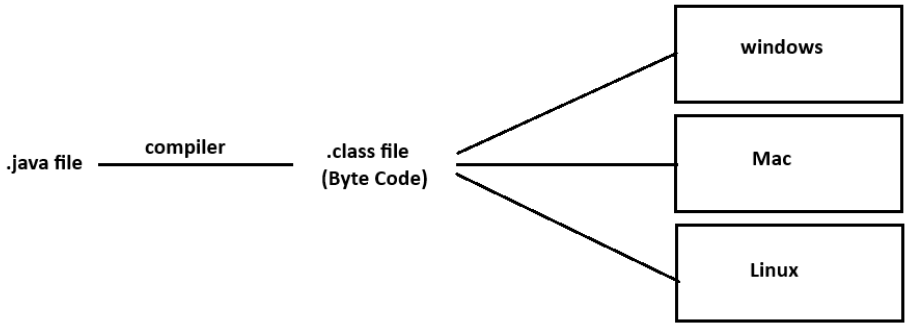
2. What are the features of Java?

We have following list of important features in java

1. Simple
2. Object oriented
3. Platform independent
4. Secure
5. Robust
6. Multithreaded
7. Architecture Neutral
8. Portable
9. High performance
10. Distributed
11. Dynamic and etc.

3. Is java platform dependent or independent?

Java is platform independent at the bytecode level.
Java is often referred to as WORA, which stands for "Write Once, Run Anywhere".

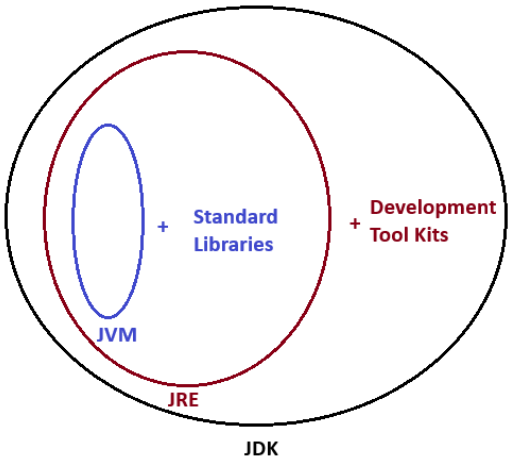


4. What is the difference between JDK vs JRE vs JVM?

JDK:
It is a installable software which consist of Java Runtime Environment (JRE), Java Virtual Machine (JVM), compiler (javac), interpreter (java), an archiver (.jar), document generator (Javadoc) and other tools needed for java application development.

JRE:
It is a part of Java Development Kit (JDK) that provides very good environment to run java applications only.

JVM:
It is a part of Java Runtime Environment (JRE) that runs Java bytecode.
In general, JVM is used to execute our program line by line procedure.



5. Is java purely object oriented or not?

No, java will not consider as purely object oriented programming language because java does not support many OOPS concepts like multiple inheritance, operator overloading and more ever we depends upon primitive datatypes which are non-objects.

Interview Questions

1. Write a java program to return perfect squares from given array. If array does not contains perfect squares then we need to return -1?

```
public class PerfectSquares
{
    public static void main(String[] args)
    {
            int[] arr = {1, 4, 16, 23, 25, 36, 40};

            boolean flag=false;
```

```
                for(int num:arr)
                {
                        int sqrt = (int) Math.sqrt(num);
                        if(sqrt * sqrt == num)
                        {
                                System.out.print(num+" ");
                                flag=true;
                        }
                }
                if(flag==false)
                {
                        System.out.println("-1");
                }
        }
    }
```

2. Write a java program to find out the age of a person based on birth date?

```
import java.time.*;
import java.util.*;
public class AgeCalculator
{
        public static void main(String[] args)
        {
        // Create a scanner to take user input
        Scanner scanner = new Scanner(System.in);

        // Taking birthdate input (day, month, year)
        System.out.print("Enter your birthdate (YYYY-MM-DD): ");
        String birthdateInput = scanner.nextLine();

        // Convert the input string to LocalDate
        LocalDate birthdate = LocalDate.parse(birthdateInput);

        // Get the current date
        LocalDate currentDate = LocalDate.now();

                // Calculate the age by comparing current date and birthdate
        Period period = Period.between(birthdate, currentDate);
        int age = period.getYears();

       System.out.println(age);

                scanner.close();
        }
}
```