

Program

1

Using methods `charAt()` & `length()` of `String` class, write a program to print the frequency of each character in a string.

```
import java.util.Scanner;
public class Main
{
    public static void main(String[] args) {
        int i;
        String str;

        int count[] = new int[256];
        Scanner s = new Scanner(System.in);

        System.out.print("Enter a String : ");
        str=s.nextLine();

        for (i = 0; i < str.length(); i++) {
            count[(int) str.charAt(i)]++;
        }
        for (i = 0; i < 256; i++) {
            if (count[i] != 0) {
                System.out.println( (char) i + " : " + count[i]);
            }
        }
    }
}
```

Program 2

Write a java program to print even and odd numbers series respectively from two threads:t1 and t2 synchronizing on a shared object

Let t1 print message "ping -- >" and t2 print message "--pong". Take as command line arguments, the following inputs to the program: Sleep interval for thread t1.

```
public class PingPong extends Thread {
    static StringBuilder object = new StringBuilder("");

    public static void main(String[] args) throws InterruptedException {

        Thread t1 = new PingPong();
        Thread t2 = new PingPong();

        t1.setName("\nping");
        t2.setName(" pong");

        t1.start();
        t2.start();
    }

    @Override
    public void run() {
        working();
    }

    void working() {
        while (true) {
            synchronized (object) {
                try {
                    System.out.print(Thread.currentThread().getName());
                    object.notify();
                    object.wait();
                } catch (InterruptedException e) {
                    e.printStackTrace();
                }
            }
        }
    }
}
```