

### Experiment No. 3b

Write a Java program that implements a multi-thread application that hash tree threads. First thread generates a random integer for every 1 second; second thread computes the square of the number and prints; third thread will print the value of cube of the number.

```
import java.util.*;
class second implements Runnable
{
    public int x;
    public second(int x)
    {
        this.x= x;
    }
    public void run()
    {
        System.out.println("Second Thread: Square of number is " +x*x);
    }
}
class third implements Runnable
{
    public int x;
    public third(int x)
    {
        this.x= x;
    }
    public void run()
    {
        System.out.println("Third Thread: Cube of number is " + x*x*x);
    }
}
class first extends Thread
{
    public void run()
    {
        int num=0;
        Random r= new Random();
        try
        {
            for(int i=0;i<5;i++)
            {
                num= r.nextInt(100);
                System.out.println("First Thread generated is "+num);
                Thread t2= new Thread(new second(num));
                t2.start();
                Thread t3= new Thread(new third(num));
                t3.start();
                Thread.sleep(1000);
            }
        }
        catch(Exception e)
        {
            System.out.println(e.getMessage());
        }
    }
}
public class Multithread {

    public static void main(String[] args) {
```

```
        first f= new first();  
        f.start();  
        // TODO Auto-generated method stub  
    }  
}
```

## OUTPUT

```
First Thread generated is 20  
Second Thread: Square of number is 400  
Third Thread:  Cube of number is 8000  
First Thread generated is 19  
Second Thread: Square of number is 361  
Third Thread:  Cube of number is 6859  
First Thread generated is 28  
Second Thread: Square of number is 784  
Third Thread:  Cube of number is 21952  
First Thread generated is 27  
Second Thread: Square of number is 729  
Third Thread:  Cube of number is 19683  
First Thread generated is 21  
Second Thread: Square of number is 441  
Third Thread:  Cube of number is 9261
```