FALL SEM – (20 – 2021)

CSE2005

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LAB NO : 8

SLOT : L5

Write a java program to create three threads by implementing Runnable interface. All threads should display the numbers between 1 and 10 sequentially along with their thread name. Finally, all the threads should display end of their execution before completing execution threads. In main thread, start execution of these three threads by assigning priority of third thread as highest priority, first thread as lowest priority and second thread as same priority as the priority of first thread.[Hint: Use getPriority() and setPriority() for the extraction of the first thread priority]

CODE:

```java
class Thread1 implements Runnable{
  public void run(){
    System.out.println("Entering into Thread-1....");
    for(int i=2;i<10;i++){
      System.out.println("Thread-1 with the value of "+i);
    }
    System.out.println("Exiting from Thread-1....");
  }
}
class Thread2 implements Runnable{
  public void run(){
    System.out.println("Entering into Thread-2....");
    for(int i=2;i<10;i++){
      System.out.println("Thread-2 with the value of "+i);
    }
    System.out.println("Exiting from Thread-2....");
  }
}
class Thread3 implements Runnable{
  public void run(){
    System.out.println("Entering into Thread-3....");
    for(int i=2;i<10;i++){
      System.out.println("Thread-3 with the value of "+i);
    }
    System.out.println("Exiting from Thread-3....");
  }
}
public class Main{
  public static void main(String[]args){
    Thread1 a = new Thread1();
    Thread t1 = new Thread(a);

    Thread2 b = new Thread2();
    Thread t2 = new Thread(b);

    Thread3 c = new Thread3();
    Thread t3 = new Thread(c);

    t3.setPriority(Thread.MAX_PRIORITY);
    t1.setPriority(Thread.MIN_PRIORITY);
```

```
        t2.setPriority(t1.getPriority());
        t1.start();
        t2.start();
        t3.start();
    }
}
```

OUTPUT – 1:

```
> javac -classpath .:/run_dir/junit-4.12.jar:target/dependency/* -d . Main.java
> java -classpath .:/run_dir/junit-4.12.jar:target/dependency/* Main
Entering into Thread-1....
Entering into Thread-2....
Entering into Thread-3....
Thread-3 with the value of 2
Thread-3 with the value of 3
Thread-3 with the value of 4
Thread-3 with the value of 5
Thread-3 with the value of 6
Thread-3 with the value of 7
Thread-3 with the value of 8
Thread-3 with the value of 9
Exiting from Thread-3....
Thread-2 with the value of 2
Thread-2 with the value of 3
Thread-2 with the value of 4
Thread-2 with the value of 5
Thread-2 with the value of 6
Thread-2 with the value of 7
Thread-2 with the value of 8
Thread-2 with the value of 9
Exiting from Thread-2....
Thread-1 with the value of 2
Thread-1 with the value of 3
Thread-1 with the value of 4
Thread-1 with the value of 5
Thread-1 with the value of 6
Thread-1 with the value of 7
Thread-1 with the value of 8
Thread-1 with the value of 9
Exiting from Thread-1....
>
```

OUTPUT – 2 :

```
> javac -classpath .:/run_dir/junit-4.12.jar:target/dependency/* -d . Main.java
> java -classpath .:/run_dir/junit-4.12.jar:target/dependency/* Main
Entering into Thread-1....
Entering into Thread-2....
Entering into Thread-3....
Thread-2 with the value of 2
Thread-2 with the value of 3
Thread-2 with the value of 4
Thread-2 with the value of 5
Thread-1 with the value of 2
Thread-1 with the value of 3
Thread-1 with the value of 4
Thread-1 with the value of 5
Thread-3 with the value of 2
Thread-3 with the value of 3
Thread-3 with the value of 4
Thread-2 with the value of 6
Thread-1 with the value of 6
Thread-3 with the value of 5
Thread-3 with the value of 6
Thread-3 with the value of 7
Thread-3 with the value of 8
Thread-3 with the value of 9
Exiting from Thread-3....
Thread-1 with the value of 7
Thread-1 with the value of 8
Thread-1 with the value of 9
Exiting from Thread-1....
Thread-2 with the value of 7
Thread-2 with the value of 8
Thread-2 with the value of 9
Exiting from Thread-2....
>
```