How to perform single task by multiple threads?

If you have to perform single task by many threads, have only one run() method.For example:

Program of performing single task by multiple threads

```
class TestMultitasking1 extends Thread {
 public void run() {
        System.out.println("task one");
 }
 public static void main(String args[]){
         TestMultitasking1 t1=new TestMultitasking1();
        TestMultitasking1 t2=new TestMultitasking1();
        TestMultitasking1 t3=new TestMultitasking1();

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

Test it Now

```
Output:task one
       task one
       task one
```

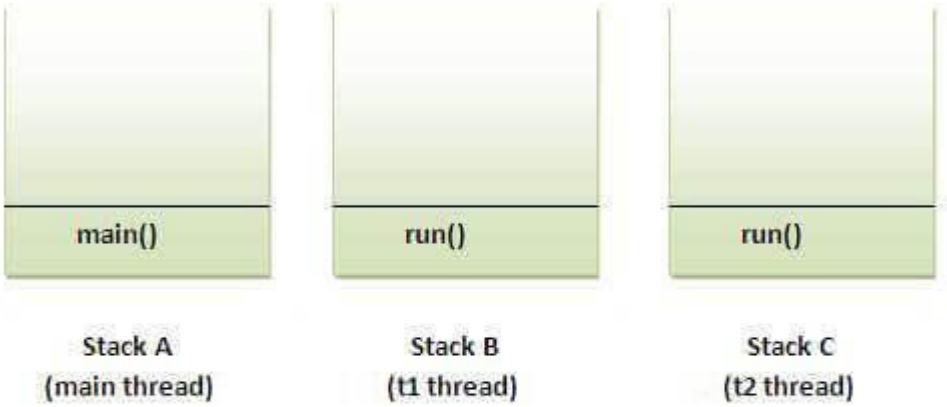
Program of performing single task by multiple threads

```
class TestMultitasking2 implements Runnable {
        public void run() {
                System.out.println("task one");
        }

public static void main(String args[]){
        Thread t1 =new Thread(new TestMultitasking2());//passing annonymous object of TesMultitasking2 class
        Thread t2 =new Thread(new TestMultitasking2());

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

 }
}
```

Test it Now

```
Output:task one
       task one
```

Note: Each thread run in a separate callstack.



How to perform multiple tasks by multiple threads (multitasking in multithreading)?

If you have to perform multiple tasks by multiple threads,have multiple run() methods.For example:

Program of performing two tasks by two threads

```
class Simple1 extends Thread {
        public void run() {
        System.out.println("task one");
        }
}

        class Simple2 extends Thread{
                public void run(){
                System.out.println("task two");
        }
}

 class TestMultitasking3 {
 public static void main(String args[]) {
        Simple1 t1=new Simple1();
        Simple2 t2=new Simple2();
```

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

Test it Now

```
Output:task one
       task two
```

Same example as above by annonymous class that extends Thread class:

Program of performing two tasks by two threads

```
class TestMultitasking4 {
        public static void main(String args[]) {
                Thread t1=new Thread(){

                public void run() {
                        System.out.println("task one");
                }
        };

        Thread t2=new Thread(){
        public void run(){
        System.out.println("task two");
   }
 };


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

Test it Now

```
Output:task one
       task two
```

Same example as above by annonymous class that implements Runnable interface:

Program of performing two tasks by two threads

```
class TestMultitasking5 {
        public static void main(String args[]){
                Runnable r1=new Runnable(){
```

```
            public void run(){
                System.out.println("task one");
            }
        };

         Runnable r2=new Runnable() {
            public void run() {
                System.out.println("task two");
            }
        };

            Thread t1=new Thread(r1);
            Thread t2=new Thread(r2);

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

Test it Now

```
Output:task one
       task two
```