- **Single Thread Example:**

```
package demotest;

public class AThread
{
	public static void main(String[] args) {
		System.out.println("Single Thread");
	}
}
```

- **Example of Multi thread:**

```
package demotest;

public class AThread1 implements Runnable
{
	public static void main(String[] args) {
	 Thread AThread1 = new Thread("javakiran");
	 Thread AThread2 = new Thread("java");
	 AThread1.start();
	 AThread2.start();
	 System.out.println("Thread names are following:");
	 System.out.println(AThread1.getName());
	 System.out.println(AThread2.getName());
    }
    @Override
    public void run() {
    }

}
```

// Java code for thread creation by extending
// the Thread class

Example 1

```
class MultithreadingDemo extends Thread
```

```
{
    public void run()
    {
        try
        {
            // Displaying the thread that is running
            System.out.println ("Thread " +
                  Thread.currentThread().getId() +
                  " is running");

        }
        catch (Exception e)
        {
            // Throwing an exception
            System.out.println ("Exception is caught");
        }
    }
}

// Main Class
public class Multithread
{
    public static void main(String[] args)
    {
        int n = 8; // Number of threads
        for (int i=0; i<8; i++)
        {
            MultithreadingDemo object = new
MultithreadingDemo();
            object.start();
        }
    }
}
```

Example 2

```
class Multi extends Thread{

public void run(){

System.out.println("thread is running...");
```

```
}
public static void main(String args[]){
Multi t1=new Multi();
t1.start();
 }
}
```

// Java code for thread creation by implementing // the Runnable Interface

Example 1

```
class Multi3 implements Runnable{
public void run(){
System.out.println("thread is running...");
}

public static void main(String args[]){
Multi3 m1=new Multi3();
Thread t1 =new Thread(m1);
t1.start();
 }
}
```

Example 2

```
class MultithreadingDemo implements Runnable
{
    public void run()
    {
        try
        {
        // Displaying the thread that is running
System.out.println ("Thread "
+Thread.currentThread().getId() +
                                " is running");
```

```
        }
        catch (Exception e)
        {
            // Throwing an exception
            System.out.println ("Exception is caught");
        }
    }
}

// Main Class
class Multithread
{
    public static void main(String[] args)
    {
        int n = 8; // Number of threads
        for (int i=0; i<8; i++)
        {
            Thread object = new Thread(new
MultithreadingDemo());
            object.start();
        }
    }
}
```

Example of join() method

```
class TestJoinMethod1 extends Thread{

 public void run(){

  for(int i=1;i<=5;i++){

   try{

    Thread.sleep(500);

   }catch(Exception e){System.out.println(e);}

  System.out.println(i);

  }
```

```
 }
public static void main(String args[]){
 TestJoinMethod1 t1=new TestJoinMethod1();
 TestJoinMethod1 t2=new TestJoinMethod1();
 TestJoinMethod1 t3=new TestJoinMethod1();
 t1.start();
 try{
  t1.join();
 }catch(Exception e){System.out.println(e);}

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

getName(),setName(String) and getId() method:

```
class TestJoinMethod3 extends Thread{
  public void run(){
   System.out.println("running...");
  }
 public static void main(String args[]){
  TestJoinMethod3 t1=new TestJoinMethod3();
  TestJoinMethod3 t2=new TestJoinMethod3();
```

```
  System.out.println("Name of t1:"+t1.getName());

  System.out.println("Name of t2:"+t2.getName());

  System.out.println("id of t1:"+t1.getId());


  t1.start();

  t2.start();

  t1.setName("javabykiran");

  System.out.println("After changing name of
t1:"+t1.getName());

 }

}
```

The currentThread() method:

```
class TestJoinMethod4 extends Thread{

 public void run(){

  System.out.println(Thread.currentThread().getName());

 }

 }

 public static void main(String args[]){

  TestJoinMethod4 t1=new TestJoinMethod4();

  TestJoinMethod4 t2=new TestJoinMethod4();


  t1.start();

  t2.start();
```

```
 }
}
```

Example of priority of a Thread:

```
class TestMultiPriority1 extends Thread{
 public void run(){
   System.out.println("running thread name
is:"+Thread.currentThread().getName());
   System.out.println("running thread priority
is:"+Thread.currentThread().getPriority());

  }
 public static void main(String args[]){
  TestMultiPriority1 m1=new TestMultiPriority1();
  TestMultiPriority1 m2=new TestMultiPriority1();
  m1.setPriority(Thread.MIN_PRIORITY);
  m2.setPriority(Thread.MAX_PRIORITY);
  m1.start();
  m2.start();

 }
}
```

Example of sleep method in java

```
class TestSleepMethod1 extends Thread{
 public void run(){
```

```
  for(int i=1;i<5;i++){
    try{Thread.sleep(500);
}catch(InterruptedException e){System.out.println(e);}
    System.out.println(i);
  }
 }
 public static void main(String args[]){
  TestSleepMethod1 t1=new TestSleepMethod1();
  TestSleepMethod1 t2=new TestSleepMethod1();

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