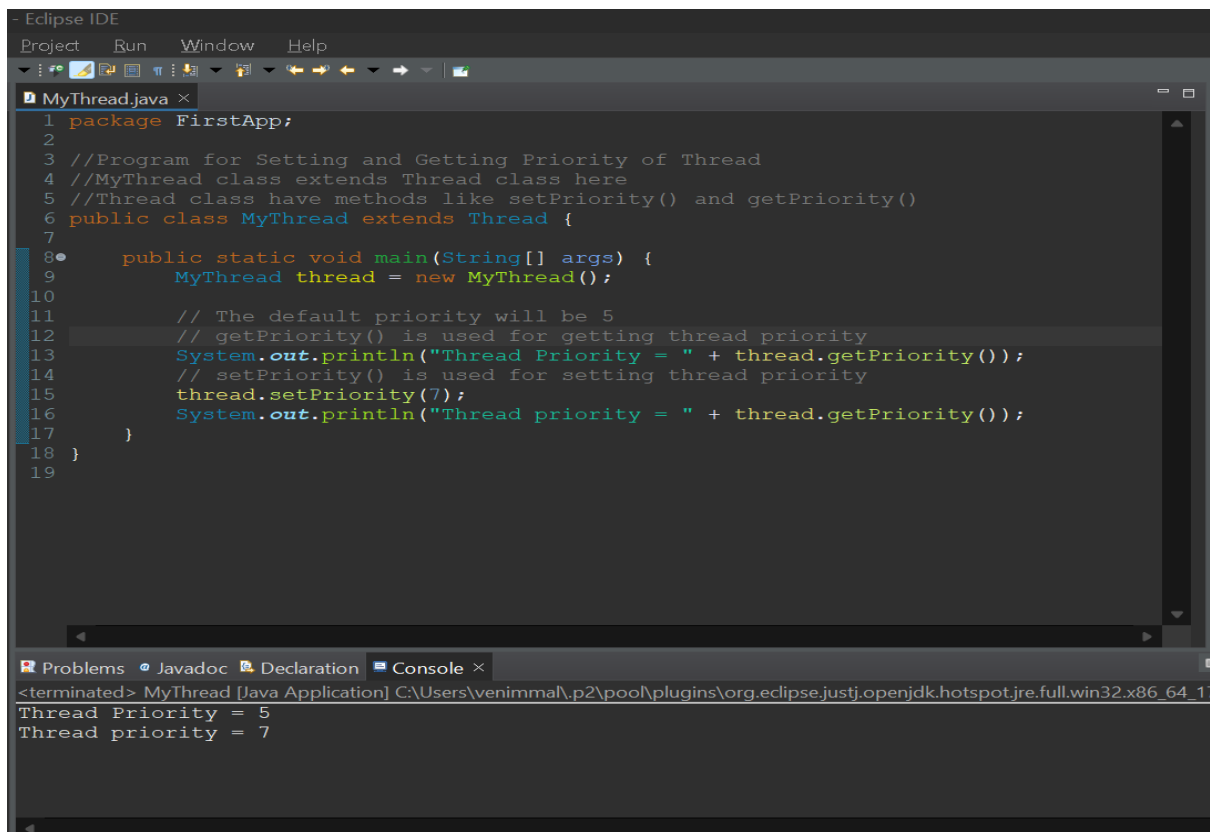


## Thread Priority Snippets

//Program for setting and getting Thread Priority



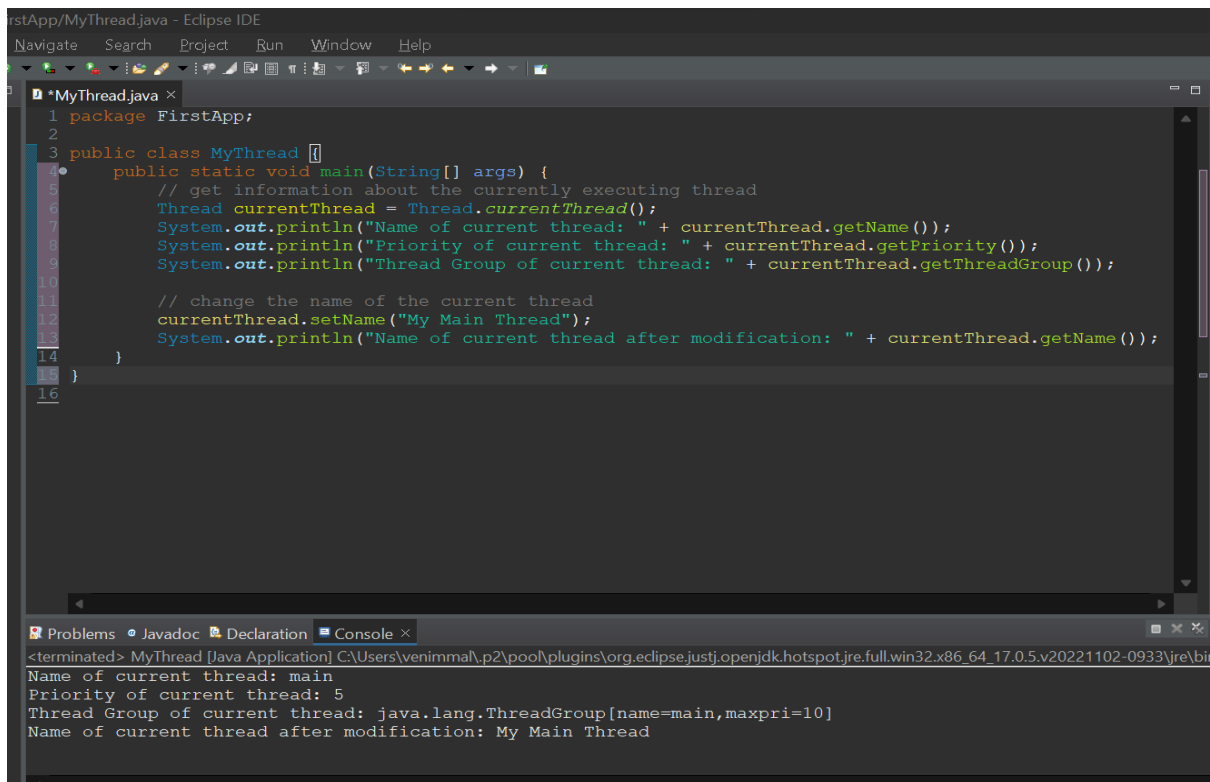
The screenshot shows the Eclipse IDE with a Java file named `MyThread.java`. The code defines a `MyThread` class that extends `Thread`. In the `main` method, a `MyThread` object is created, its default priority (5) is printed, and then the priority is set to 7 and printed again. The console output at the bottom shows the results of these operations.

```
1 package FirstApp;
2
3 //Program for Setting and Getting Priority of Thread
4 //MyThread class extends Thread class here
5 //Thread class have methods like setPriority() and getPriority()
6 public class MyThread extends Thread {
7
8     public static void main(String[] args) {
9         MyThread thread = new MyThread();
10
11         // The default priority will be 5
12         // getPriority() is used for getting thread priority
13         System.out.println("Thread Priority = " + thread.getPriority());
14         // setPriority() is used for setting thread priority
15         thread.setPriority(7);
16         System.out.println("Thread priority = " + thread.getPriority());
17     }
18 }
19
```

Console Output:

```
<terminated> MyThread [Java Application] C:\Users\venimma\p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_17.0.5.v20221102-0933\jre\bin\java.exe
Thread Priority = 5
Thread priority = 7
```

//Program to get information about the Currently Executing Thread



The screenshot shows the Eclipse IDE with a Java file named `MyThread.java`. The code defines a `MyThread` class. In the `main` method, it gets the current thread, prints its name, priority, and thread group, then changes the thread's name to "My Main Thread" and prints the updated information.

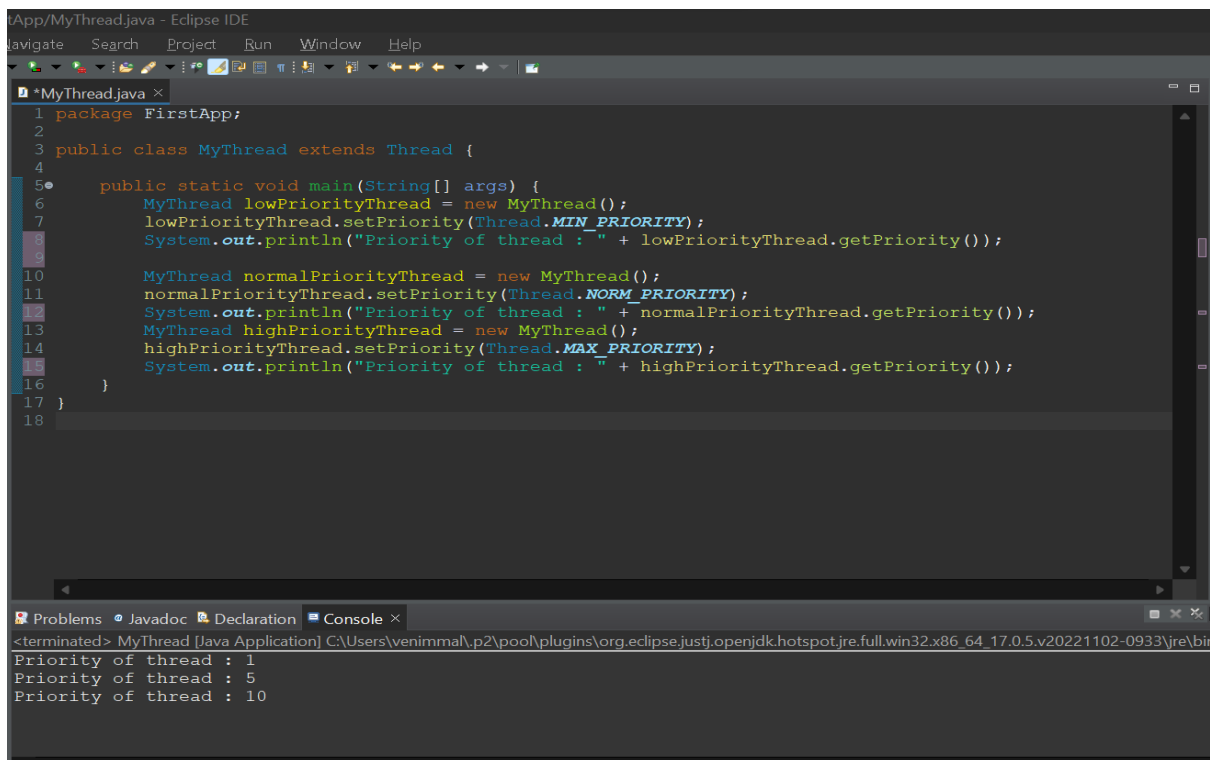
```
1 package FirstApp;
2
3 public class MyThread {
4
5     public static void main(String[] args) {
6         // get information about the currently executing thread
7         Thread currentThread = Thread.currentThread();
8         System.out.println("Name of current thread: " + currentThread.getName());
9         System.out.println("Priority of current thread: " + currentThread.getPriority());
10        System.out.println("Thread Group of current thread: " + currentThread.getThreadGroup());
11
12        // change the name of the current thread
13        currentThread.setName("My Main Thread");
14        System.out.println("Name of current thread after modification: " + currentThread.getName());
15    }
16 }

```

Console Output:

```
<terminated> MyThread [Java Application] C:\Users\venimma\p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_17.0.5.v20221102-0933\jre\bin\java.exe
Name of current thread: main
Priority of current thread: 5
Thread Group of current thread: java.lang.ThreadGroup[name=main,maxpri=10]
Name of current thread after modification: My Main Thread
```

//Program to understand three constants used in priority of thread

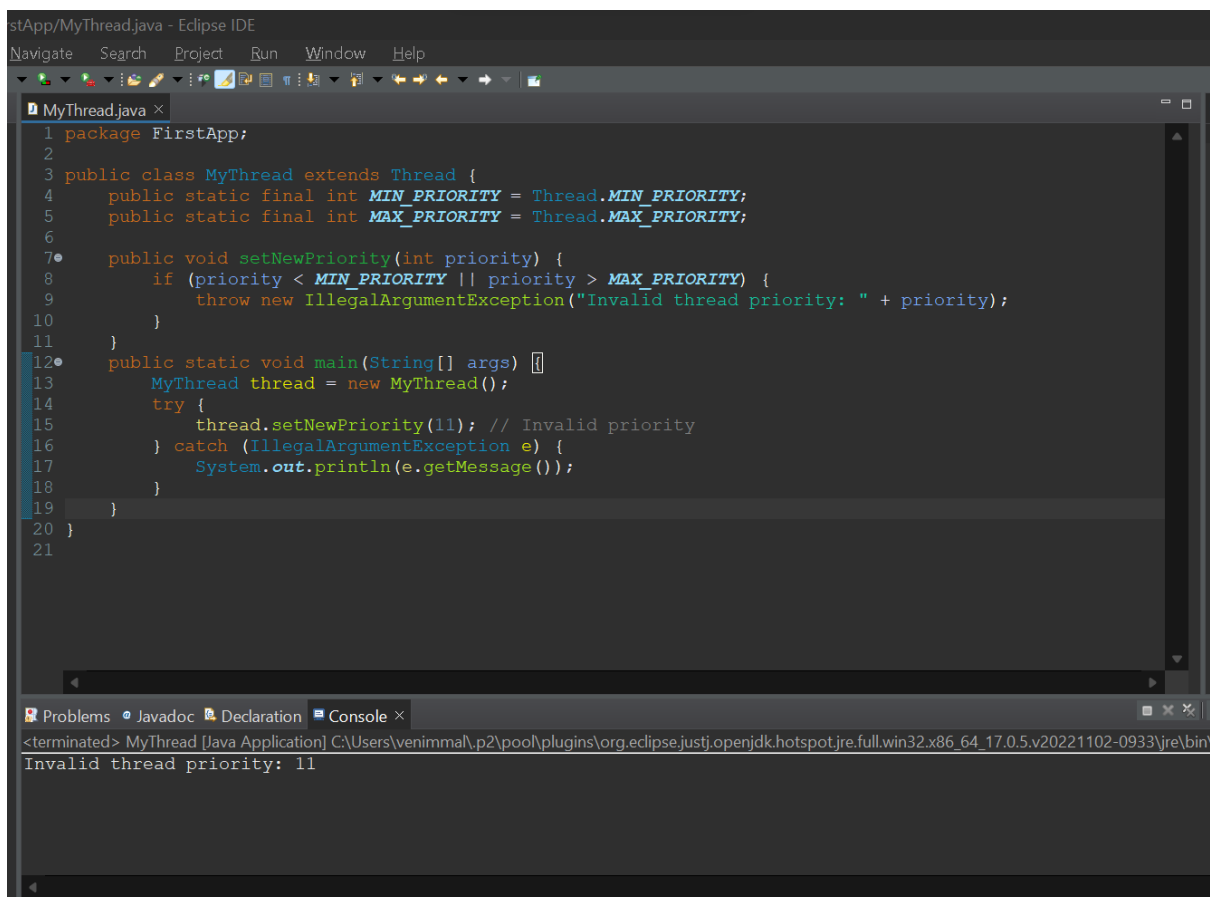


```
App/MyThread.java - Eclipse IDE
Navigate Search Project Run Window Help

MyThread.java x
1 package FirstApp;
2
3 public class MyThread extends Thread {
4
5     public static void main(String[] args) {
6         MyThread lowPriorityThread = new MyThread();
7         lowPriorityThread.setPriority(Thread.MIN_PRIORITY);
8         System.out.println("Priority of thread : " + lowPriorityThread.getPriority());
9
10        MyThread normalPriorityThread = new MyThread();
11        normalPriorityThread.setPriority(Thread.NORM_PRIORITY);
12        System.out.println("Priority of thread : " + normalPriorityThread.getPriority());
13        MyThread highPriorityThread = new MyThread();
14        highPriorityThread.setPriority(Thread.MAX_PRIORITY);
15        System.out.println("Priority of thread : " + highPriorityThread.getPriority());
16    }
17 }
18

Problems Javadoc Declaration Console x
<terminated> MyThread [Java Application] C:\Users\venimma\p2\pool\plugins\org.eclipse.justi.openjdk.hotspot.jre.full.win32.x86_64_17.0.5.v20221102-0933\jre\bin
Priority of thread : 1
Priority of thread : 5
Priority of thread : 10
```

//Program to explain Invalid Thread Priority

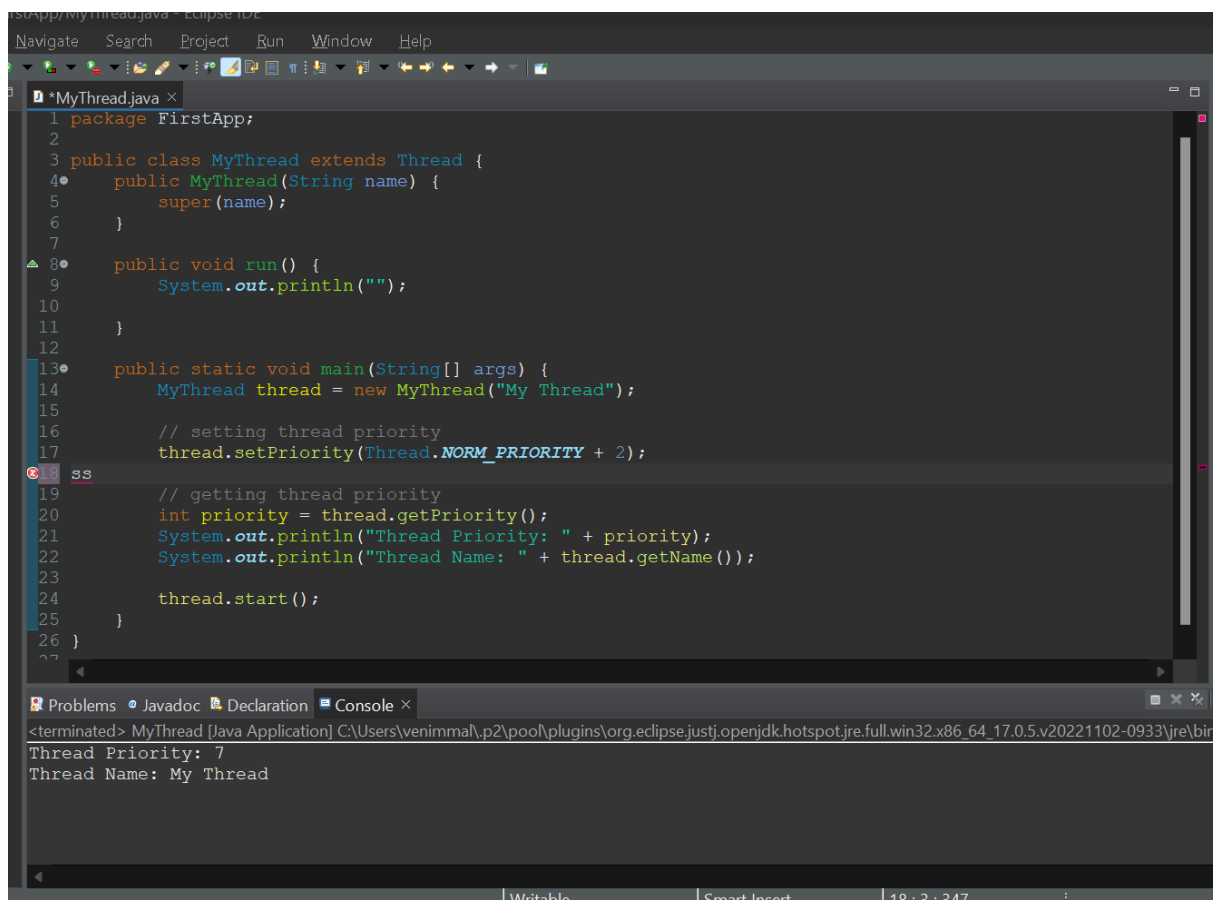


```
stApp/MyThread.java - Eclipse IDE
Navigate Search Project Run Window Help

MyThread.java x
1 package FirstApp;
2
3 public class MyThread extends Thread {
4     public static final int MIN_PRIORITY = Thread.MIN_PRIORITY;
5     public static final int MAX_PRIORITY = Thread.MAX_PRIORITY;
6
7     public void setNewPriority(int priority) {
8         if (priority < MIN_PRIORITY || priority > MAX_PRIORITY) {
9             throw new IllegalArgumentException("Invalid thread priority: " + priority);
10        }
11    }
12
13    public static void main(String[] args) {
14        MyThread thread = new MyThread();
15        try {
16            thread.setNewPriority(11); // Invalid priority
17        } catch (IllegalArgumentException e) {
18            System.out.println(e.getMessage());
19        }
20    }
21 }

Problems Javadoc Declaration Console x
<terminated> MyThread [Java Application] C:\Users\venimma\p2\pool\plugins\org.eclipse.justi.openjdk.hotspot.jre.full.win32.x86_64_17.0.5.v20221102-0933\jre\bin
Invalid thread priority: 11
```

//Program to illustrate Thread Priority



```
1 package FirstApp;
2
3 public class MyThread extends Thread {
4     public MyThread(String name) {
5         super(name);
6     }
7
8     public void run() {
9         System.out.println("");
10    }
11
12    public static void main(String[] args) {
13        MyThread thread = new MyThread("My Thread");
14
15        // setting thread priority
16        thread.setPriority(Thread.NORM_PRIORITY + 2);
17
18        // getting thread priority
19        int priority = thread.getPriority();
20        System.out.println("Thread Priority: " + priority);
21        System.out.println("Thread Name: " + thread.getName());
22
23        thread.start();
24    }
25 }
26 }
```

Problems Javadoc Declaration Console ×

<terminated> MyThread [Java Application] C:\Users\venimma\p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86\_64\_17.0.5.v20221102-0933\jre\bin

Thread Priority: 7

Thread Name: My Thread

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