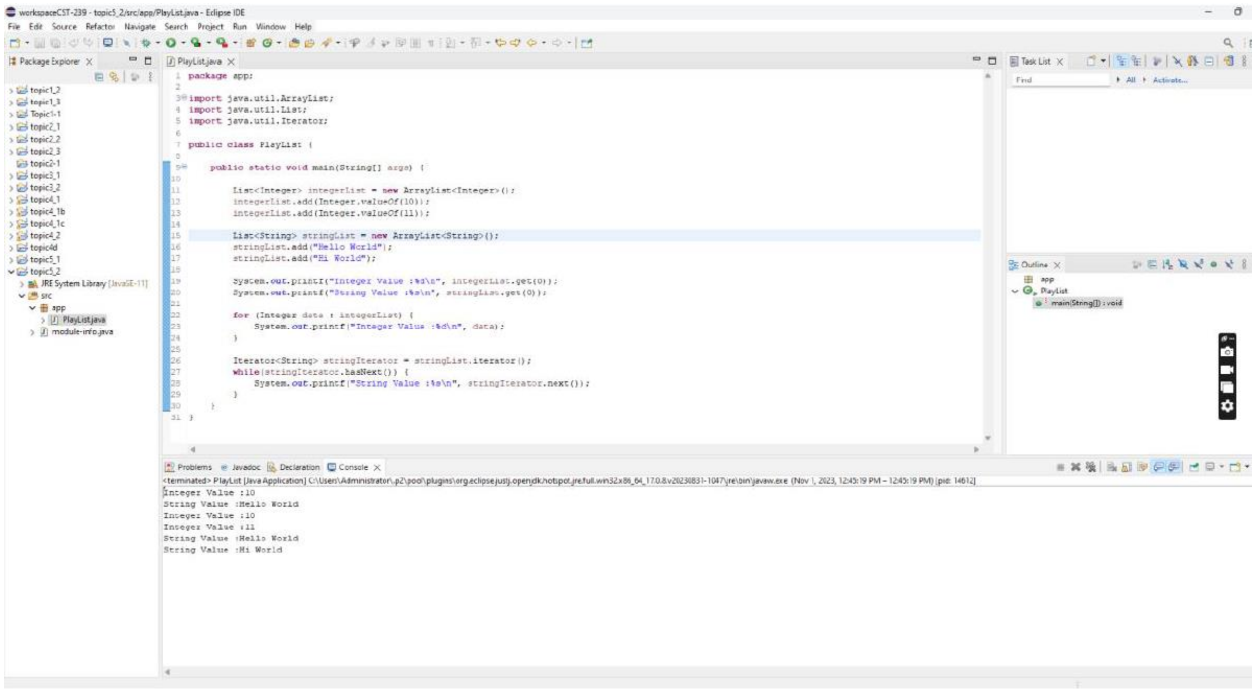
ScreenShot of output:

5-2

PlayList Class:

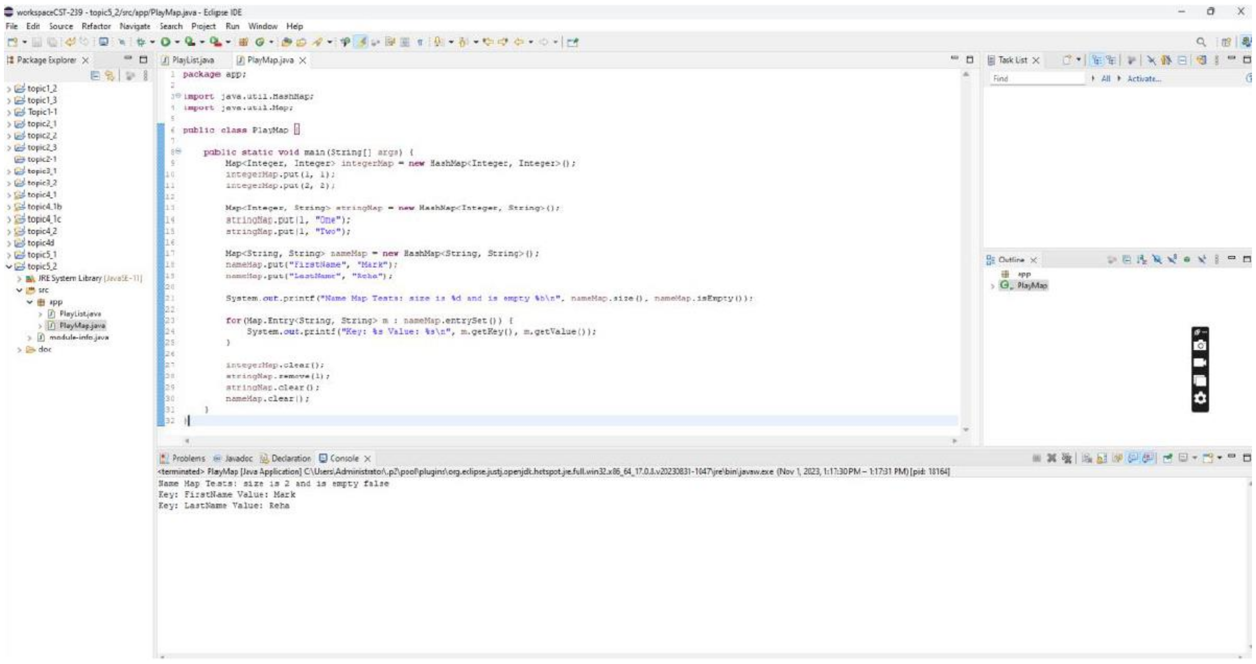


workspaceCST-239 - topic5_2/src/app/PlayList.java - Eclipse IDE

```java
package app;

import java.util.ArrayList;
import java.util.List;
import java.util.Iterator;

public class PlayList {

    public static void main(String[] args) {

        List<Integer> integerList = new ArrayList<Integer>();
        integerList.add(Integer.valueOf(10));
        integerList.add(Integer.valueOf(11));

        List<String> stringList = new ArrayList<String>();
        stringList.add("Hello World");
        stringList.add("Hi World");

        System.out.printf("Integer Value :%d\n", integerList.get(0));
        System.out.printf("String Value :%s\n", stringList.get(0));

        for (Integer data : integerList) {
            System.out.printf("Integer Value :%d\n", data);
        }

        Iterator<String> stringIterator = stringList.iterator();
        while(stringIterator.hasNext()) {
            System.out.printf("String Value :%s\n", stringIterator.next());
        }
    }
}
```

```
<terminated> PlayList [Java Application] C:\Users\Administrator\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_17.0.8.v20230831-1047\jre\bin\javaw.exe (Nov 1, 2023, 12:45:19 PM – 12:45:19 PM) [pid: 14612]
Integer Value :10
String Value :Hello World
Integer Value :10
Integer Value :11
String Value :Hello World
String Value :Hi World
```

PlayMap Class:

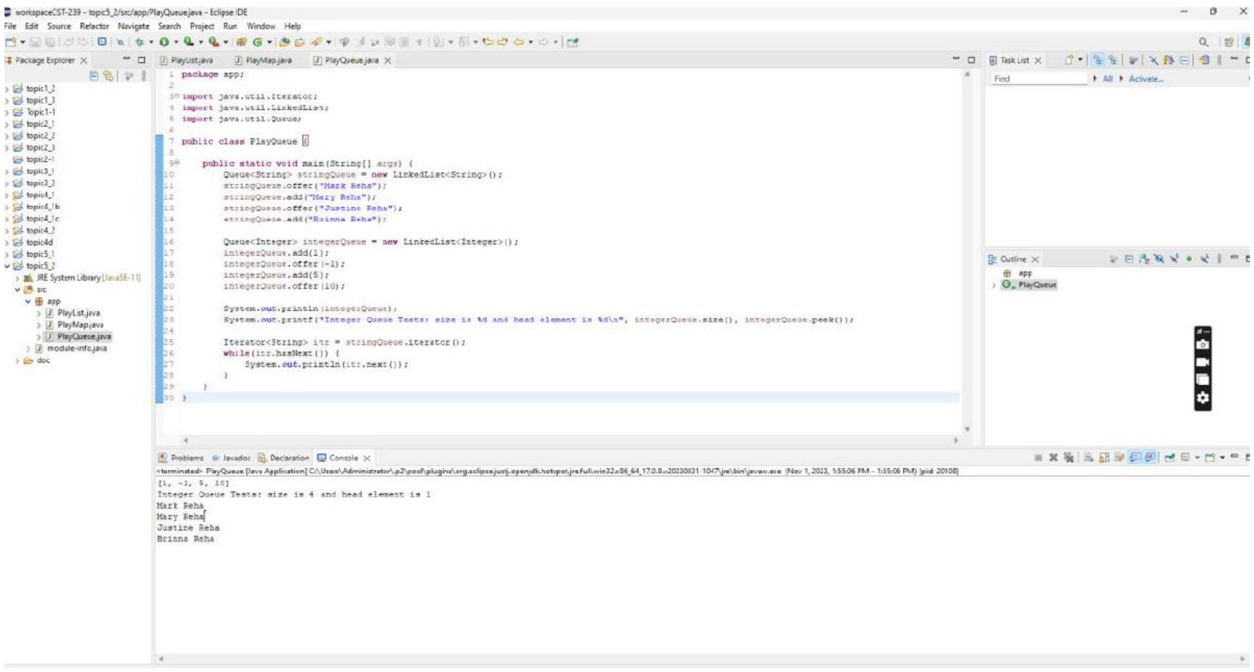


workspaceCST-239 - topic5_2/src/app/PlayMap.java - Eclipse IDE

```java
package app;

import java.util.HashMap;
import java.util.Map;

public class PlayMap {

    public static void main(String[] args) {
        Map<Integer, Integer> integerMap = new HashMap<Integer, Integer>();
        integerMap.put(1, 1);
        integerMap.put(2, 2);

        Map<Integer, String> stringMap = new HashMap<Integer, String>();
        stringMap.put(1, "One");
        stringMap.put(1, "Two");

        Map<String, String> nameMap = new HashMap<String, String>();
        nameMap.put("FirstName", "Mark");
        nameMap.put("LastName", "Reha");

        System.out.printf("Name Map Tests: size is %d and is empty %b\n", nameMap.size(), nameMap.isEmpty());

        for(Map.Entry<String, String> m : nameMap.entrySet()) {
            System.out.printf("Key: %s Value: %s\n", m.getKey(), m.getValue());
        }

        integerMap.clear();
        stringMap.remove(1);
        stringMap.clear();
        nameMap.clear();
    }
}
```

```
<terminated> PlayMap [Java Application] C:\Users\Administrator\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_17.0.8.v20230831-1047\jre\bin\javaw.exe (Nov 1, 2023, 1:17:30 PM – 1:17:31 PM) [pid: 18164]
Name Map Tests: size is 2 and is empty false
Key: FirstName Value: Mark
Key: LastName Value: Reha
```

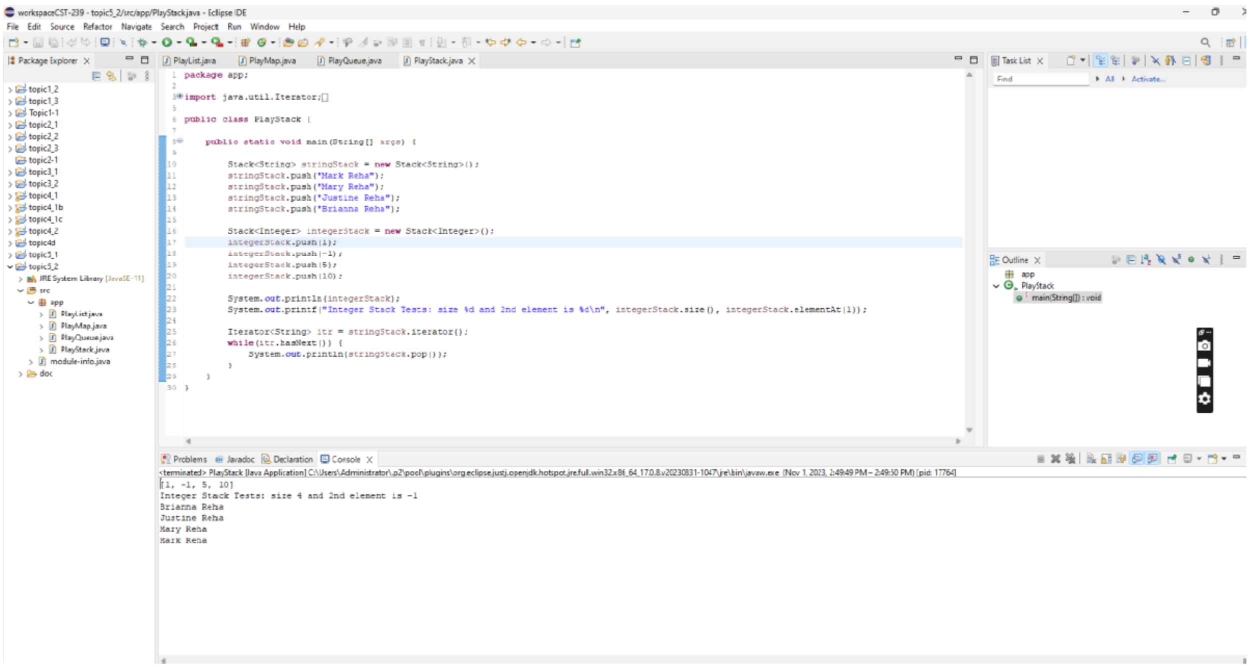
PlayQueue Class:



```
package app;

import java.util.Iterator;
import java.util.LinkedList;
import java.util.Queue;

public class PlayQueue {

    public static void main(String[] args) {
        Queue<String> stringQueue = new LinkedList<String>();
        stringQueue.offer("Mark Reha");
        stringQueue.add("Mary Reha");
        stringQueue.offer("Justine Reha");
        stringQueue.add("Brinna Reha");

        Queue<Integer> integerQueue = new LinkedList<Integer>();
        integerQueue.add(1);
        integerQueue.offer(-1);
        integerQueue.add(5);
        integerQueue.offer(10);

        System.out.println(integerQueue);
        System.out.printf("Integer Queue Tests: size is %d and head element is %d\n", integerQueue.size(), integerQueue.peek());

        Iterator<String> itr = stringQueue.iterator();
        while(itr.hasNext()) {
            System.out.println(itr.next());
        }
    }
}
```

```
<terminated> PlayQueue [Java Application] C:\Users\Administrator\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_17.0.8.v20230831-1047\jre\bin\javaw.exe (Nov 1, 2023, 1:55:06 PM – 1:55:06 PM) [pid: 20108]
[1, -1, 5, 10]
Integer Queue Tests: size is 4 and head element is 1
Mark Reha
Mary Reha
Justine Reha
Brinna Reha
```

playStack class:



```
package app;

import java.util.Iterator;

public class PlayStack {

    public static void main(String[] args) {

        Stack<String> stringStack = new Stack<String>();
        stringStack.push("Mark Reha");
        stringStack.push("Mary Reha");
        stringStack.push("Justine Reha");
        stringStack.push("Brianna Reha");

        Stack<Integer> integerStack = new Stack<Integer>();
        integerStack.push(1);
        integerStack.push(-1);
        integerStack.push(5);
        integerStack.push(10);

        System.out.println(integerStack);
        System.out.printf("Integer Stack Tests: size %d and 2nd element is %d\n", integerStack.size(), integerStack.elementAt(1));

        Iterator<String> itr = stringStack.iterator();
        while(itr.hasNext()) {
            System.out.println(stringStack.pop());
        }
    }
}
```

```
<terminated> PlayStack [Java Application] C:\Users\Administrator\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_17.0.8.v20230831-1047\jre\bin\javaw.exe (Nov 1, 2023, 2:49:49 PM – 2:49:50 PM) [pid: 17764]
[1, -1, 5, 10]
Integer Stack Tests: size 4 and 2nd element is -1
Brianna Reha
Justine Reha
Mary Reha
Mark Reha
```

No write up was requested in this activity.

No UML was requested in this activity.