Book.java | newbook.java

```java
package JavaCollection;

import java.util.ArrayList;

public class newbook {
    public static void main(String[] args) {
        // Creating an ArrayList to store Book objects
        ArrayList<Book> books = new ArrayList<>();

        // Adding Book objects to the ArrayList
        books.add(new Book(1, "english", "Harper Lee"));
        books.add(new Book(2, "2000", "George Orwell"));
        books.add(new Book(3, "The Great Gatsby", "F. Scott Fitzgerald"));
        books.add(new Book(4, "Moby Dick", "Herman Melville"));

        // Displaying all book details using an advanced for loop
        for (Book book : books) {
            book.displayBookDetails();
        }
    }


}
```

Problems | Javadoc | Declaration | Console

<terminated> newbook [Java Application] C:\sts-4.26.0.RELEASE\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_21.0.4.v2024

```
Book ID: 1, Book Name: english, Author: Harper Lee
Book ID: 2, Book Name: 2000, Author: George Orwell
Book ID: 3, Book Name: The Great Gatsby, Author: F. Scott Fitzgerald
Book ID: 4, Book Name: Moby Dick, Author: Herman Melville
```

Book.java | newbook.java | ReverseList.java

```java
package JavaCollection;


    import java.util.ArrayList;
    import java.util.Collections;
    import java.util.List;

    public class ReverseList {
        public static void main(String[] args) {
            // Creating a List of strings
            List<String> stringList = new ArrayList<>();

            // Adding some strings to the list
            stringList.add("A");
            stringList.add("B");
            stringList.add("C");
            stringList.add("D");
            stringList.add("E");

            // Displaying the original list
            System.out.println("Original List: " + stringList);

            // Reversing the list using Collections.reverse()
            Collections.reverse(stringList);

            // Displaying the reversed list
            System.out.println("Reversed List: " + stringList);
        }
```

Problems | Javadoc | Declaration | Console

<terminated> ReverseList [Java Application] C:\sts-4.26.0.RELEASE\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win3

```
Original List: [A, B, C, D, E]
Reversed List: [E, D, C, B, A]
```

Book.java | newbook.java | ReverseList.java | SumEvenNumbers.java

```java
import java.util.ArrayList;

public class SumEvenNumbers {
    public static void main(String[] args) {
        // Creating an ArrayList of integers
        ArrayList<Integer> numbers = new ArrayList<>();

        // Adding some integers to the ArrayList
        numbers.add(60);
        numbers.add(10);
        numbers.add(25);
        numbers.add(20);
        numbers.add(30);

        // Calculating the sum of even numbers
        int sum = 0;
        for (int num : numbers) {
            if (num % 2 == 0) {
                sum += num;  // Add even numbers to sum
            }
        }

        // Displaying the result
        System.out.println("The sum of all even numbers is: " + sum);
    }
}
```

Problems | Javadoc | Declaration | Console

<terminated> SumEvenNumbers [Java Application] C:\sts-4.26.0.RELEASE\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_6

```
The sum of all even numbers is: 120
```

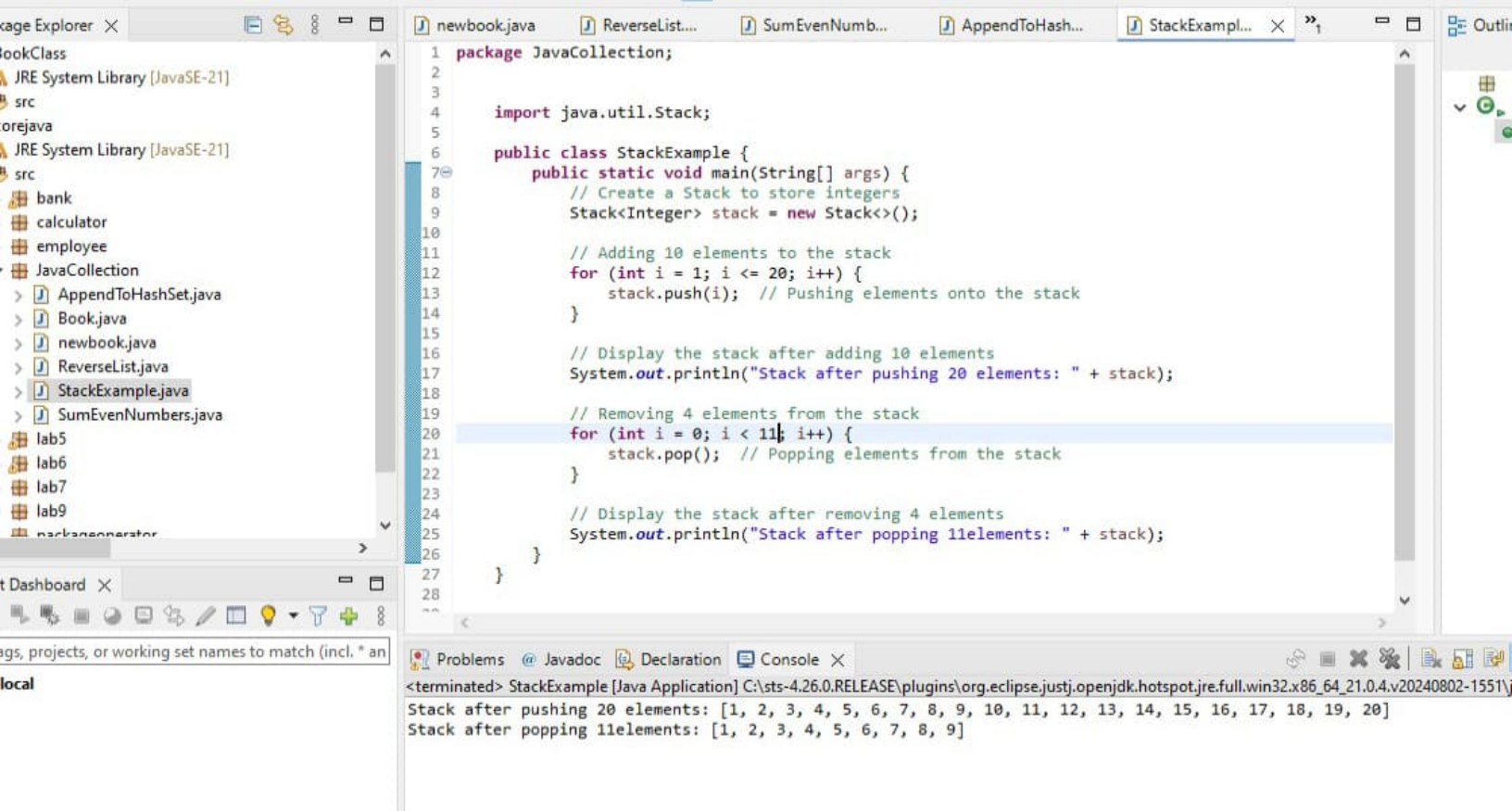
Book.java | newbook.java | ReverseList.java | SumEvenNumbers.java | AppendToHashSet.java

```java

import java.util.HashSet;

public class AppendToHashSet {
    public static void main(String[] args) {
        // Creating a HashSet of integers
        HashSet<Integer> numberSet = new HashSet<>();

        // Adding some elements to the HashSet
        numberSet.add(100);
        numberSet.add(200);
        numberSet.add(300);

        // Displaying the original HashSet
        System.out.println("Original HashSet: " + numberSet);

        // Specified element to append
        int newElement = 40;

        // Appending the specified element to the HashSet
        numberSet.add(newElement);

        // Displaying the HashSet after adding the new element
        System.out.println("HashSet after appending " + newElement + ": " + numberSet);
    }
}


```

Problems | Javadoc | Declaration | Console

<terminated> AppendToHashSet [Java Application] C:\sts-4.26.0.RELEASE\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64

```
Original HashSet: [100, 200, 300]
HashSet after appending 40: [100, 200, 40, 300]
```


kage Explorer
BookClass
JRE System Library [JavaSE-21]
src
corejava
JRE System Library [JavaSE-21]
src
bank
calculator
employee
JavaCollection
AppendToHashSet.java
Book.java
newbook.java
ReverseList.java
StackExample.java
SumEvenNumbers.java
lab5
lab6
lab7
lab9
t Dashboard
gs, projects, or working set names to match (incl. * an
local
newbook.java
ReverseList....
SumEvenNumb...
AppendToHash...
StackExampl...
Outli
1 package JavaCollection;
2
3
4 import java.util.Stack;
5
6 public class StackExample {
7 public static void main(String[] args) {
8 // Create a Stack to store integers
9 Stack<Integer> stack = new Stack<>();
10
11 // Adding 10 elements to the stack
12 for (int i = 1; i <= 20; i++) {
13 stack.push(i); // Pushing elements onto the stack
14 }
15
16 // Display the stack after adding 10 elements
17 System.out.println("Stack after pushing 20 elements: " + stack);
18
19 // Removing 4 elements from the stack
20 for (int i = 0; i < 11; i++) {
21 stack.pop(); // Popping elements from the stack
22 }
23
24 // Display the stack after removing 4 elements
25 System.out.println("Stack after popping 11elements: " + stack);
26 }
27 }
28
Problems
Javadoc
Declaration
Console
<terminated> StackExample [Java Application] C:\sts-4.26.0.RELEASE\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_21.0.4.v20240802-1551\j
Stack after pushing 20 elements: [1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20]
Stack after popping 11elements: [1, 2, 3, 4, 5, 6, 7, 8, 9]

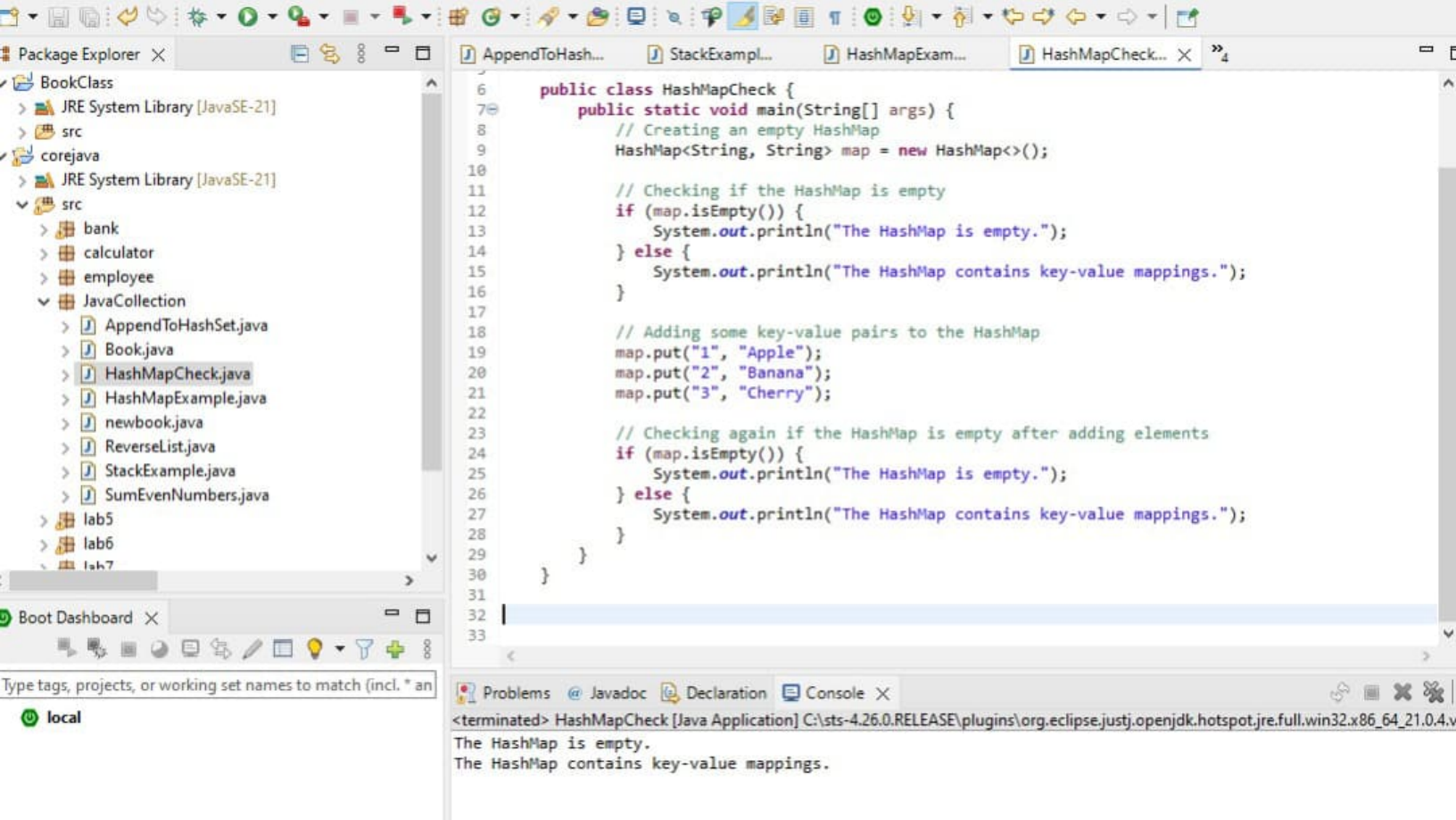
SumEvenNumb... AppendToHash... StackExampl... HashMapExam...

```java
package javacollection;


    import java.util.HashMap;

    public class HashMapExample {
        public static void main(String[] args) {
            // Creating a HashMap to store key-value pairs
            HashMap<String, String> map = new HashMap<>();

            // Associating values with keys in the HashMap
            map.put("1", "A");
            map.put("2", "B");
            map.put("3", "C");
            map.put("4", "D");

            // Displaying the original HashMap
            System.out.println("Original HashMap: " + map);

            // Associating a new key-value pair
            map.put("5", "Elderberry");

            // Displaying the HashMap after adding a new key-value pair
            System.out.println("HashMap after adding a new key-value pair: " + map);
        }
    }
```

Problems Javadoc Declaration Console

<terminated> HashMapExample [Java Application] C:\sts-4.26.0.RELEASE\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win

```
Original HashMap: {1=A, 2=B, 3=C, 4=D}
HashMap after adding a new key-value pair: {1=A, 2=B, 3=C, 4=D, 5=Elderberry}
```


Package Explorer
BookClass
JRE System Library [JavaSE-21]
src
corejava
JRE System Library [JavaSE-21]
src
bank
calculator
employee
JavaCollection
AppendToHashSet.java
Book.java
HashMapCheck.java
HashMapExample.java
newbook.java
ReverseList.java
StackExample.java
SumEvenNumbers.java
lab5
lab6
Boot Dashboard
Type tags, projects, or working set names to match (incl. * an
local
AppendToHash...
StackExampl...
HashMapExam...
HashMapCheck...
public class HashMapCheck {
public static void main(String[] args) {
// Creating an empty HashMap
HashMap<String, String> map = new HashMap<>();
// Checking if the HashMap is empty
if (map.isEmpty()) {
System.out.println("The HashMap is empty.");
} else {
System.out.println("The HashMap contains key-value mappings.");
}
// Adding some key-value pairs to the HashMap
map.put("1", "Apple");
map.put("2", "Banana");
map.put("3", "Cherry");
// Checking again if the HashMap is empty after adding elements
if (map.isEmpty()) {
System.out.println("The HashMap is empty.");
} else {
System.out.println("The HashMap contains key-value mappings.");
}
}
}
Problems
Javadoc
Declaration
Console
<terminated> HashMapCheck [Java Application] C:\sts-4.26.0.RELEASE\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_21.0.4.v
The HashMap is empty.
The HashMap contains key-value mappings.

```java
package JavaCollection;

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

public class CricketerScores {
    public static void main(String[] args) {
        // Creating a Map to store cricketer names and their scores
        Map<String, Integer> cricketerScores = new HashMap<>();

        // Adding cricketer names and their scores to the map
        cricketerScores.put("Virat Kohli", 82);
        cricketerScores.put("Rohit Sharma", 76);
        cricketerScores.put("Sachin Tendulkar", 120);
        cricketerScores.put("MS Dhoni", 45);
        cricketerScores.put("David Warner", 92);

        // Creating a scanner object to take user input
        Scanner scanner = new Scanner(System.in);

        // Asking the user to enter the name of the batsman
        System.out.print("Enter the name of the batsman to search for his score: ");
        String batsmanName = scanner.nextLine();

        // Searching for the batsman in the map and displaying the score
        if (cricketerScores.containsKey(batsmanName)) {
```

Problems | Javadoc | Declaration | Console

<terminated> CricketerScores [Java Application] C:\sts-4.26.0.RELEASE\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_21.0.4.

```
Enter the name of the batsman to search for his score: 67
Batsman not found in the records.
```