

Java_8_Assignment_Outputs

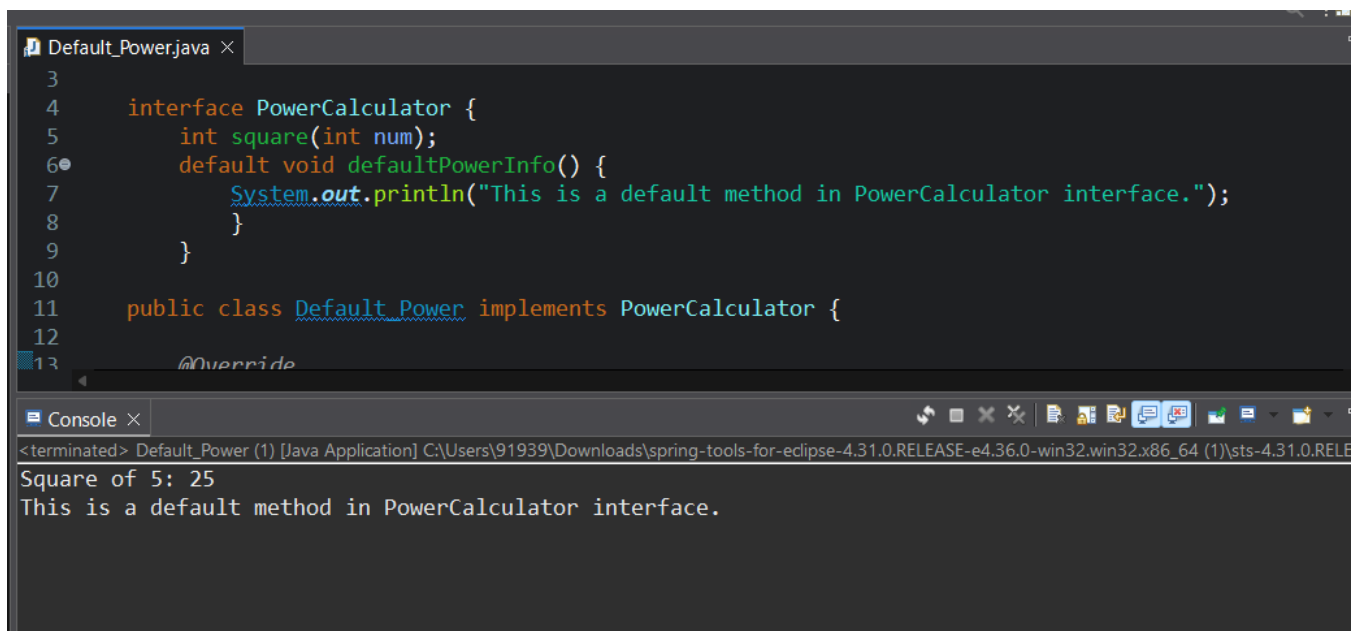
Custom_Filter_Chain :-



```
1 package com.wipro.sindhu.java_8_Assignment;
2 import java.util.Arrays;
3 import java.util.List;
4 import java.util.function.Predicate;
5 import java.util.stream.Collectors;
6 public class Custom_Filter_Chain {
7
8     public static void main(String[] args) {
9
10         List<String> names = Arrays.asList("Ankita", "Aruna", "Bhavana", "Aarti", "Divya", "Arya");
11
12     }
13 }
```

<terminated> Custom_Filter_Chain (1) [Java Application] C:\Users\91939\Downloads\spring-tools-for-eclipse-4.31.0.RELEASE-e4.36.0-win32.win32.x86_64 (1)\sts-4.31.0.RELEASE\bin\sts-4.31.0.RELEASE.exe
Names starting with A and ending with a: [Ankita, Aruna, Arya]

Default_Power :-



```
3
4 interface PowerCalculator {
5     int square(int num);
6     default void defaultPowerInfo() {
7         System.out.println("This is a default method in PowerCalculator interface.");
8     }
9 }
10
11 public class Default_Power implements PowerCalculator {
12
13     @Override
14     int square(int num) {
15         return num * num;
16     }
17 }
```

<terminated> Default_Power (1) [Java Application] C:\Users\91939\Downloads\spring-tools-for-eclipse-4.31.0.RELEASE-e4.36.0-win32.win32.x86_64 (1)\sts-4.31.0.RELEASE\bin\sts-4.31.0.RELEASE.exe
Square of 5: 25
This is a default method in PowerCalculator interface.

Even_Number_Collector :-

```
Even_Number_Collector.java ×
1 package com.wipro.sindhu.java_8_Assignment;
2
3 import java.util.Arrays;
4 import java.util.List;
5 import java.util.stream.Collectors;
6
7 public class Even_Number_Collector {
8
9     public static void main(String[] args) {
10
11         List<Integer> numbers = Arrays.asList(1, 4, 6, 7, 8, 11, 14, 17);
12     }
13 }
```

Console ×

<terminated> Even_Number_Collector (1) [Java Application] C:\Users\91939\Downloads\spring-tools-for-ecclipse-4.31.0.RELEASE-e4.36.0-win32.win32.x86_64 (1)\sts-4.31.0.RELEASE

Even Numbers: [4, 6, 8, 14]

Frequency_Mapper :-

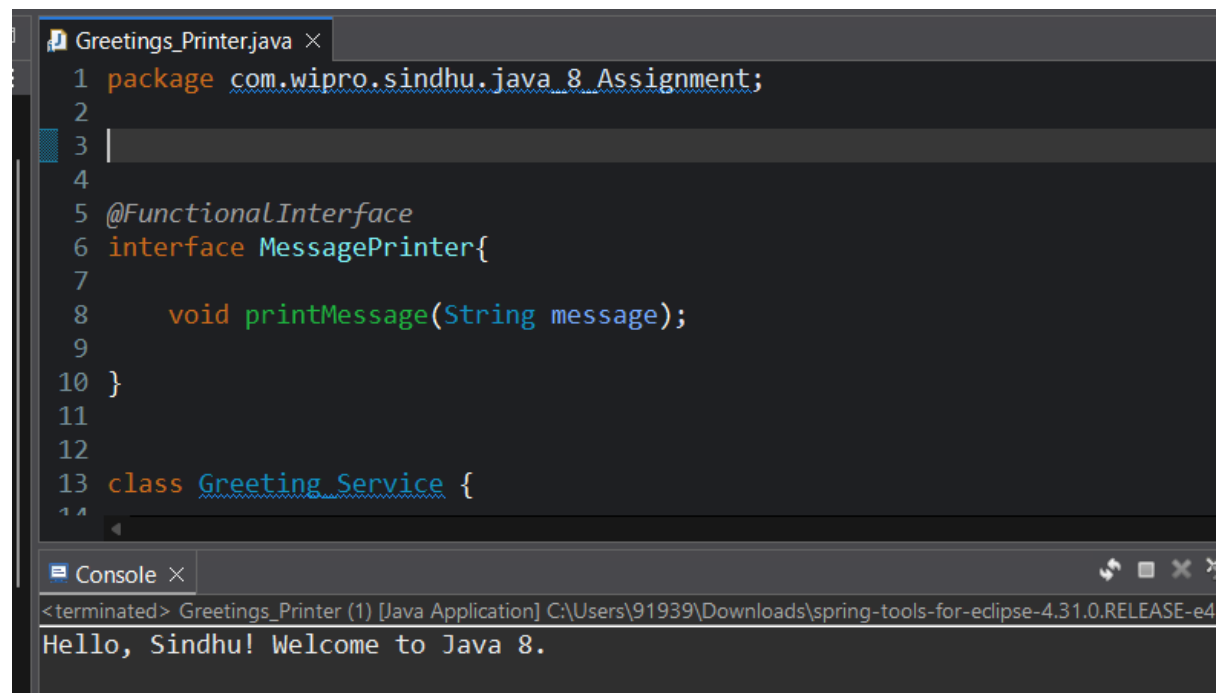
```
Frequency_Mapper.java ×
1 package com.wipro.sindhu.java_8_Assignment;
2
3 import java.util.Arrays;
4 import java.util.List;
5 import java.util.Map;
6 import java.util.stream.Collectors;
7
8 public class Frequency_Mapper {
9
10     public static void main(String[] args) {
11
12         List<String> names = Arrays.asList("Anu", "Arjun", "Anu", "Ravi", "Ravi", "Arjun", "Ravi");
13
14         Map<String, Long> frequencyMap = names.stream()
15             .collect(Collectors.groupingBy(name -> name, CollectingCounts()));
16     }
17 }
```

Console ×

<terminated> Frequency_Mapper (1) [Java Application] C:\Users\91939\Downloads\spring-tools-for-ecclipse-4.31.0.RELEASE-e4.36.0-win32.win32.x86_64 (1)\sts-4.31.0.RELEASE

Name Frequencies: {Ravi=3, Anu=2, Arjun=2}

Greeting_Service :-

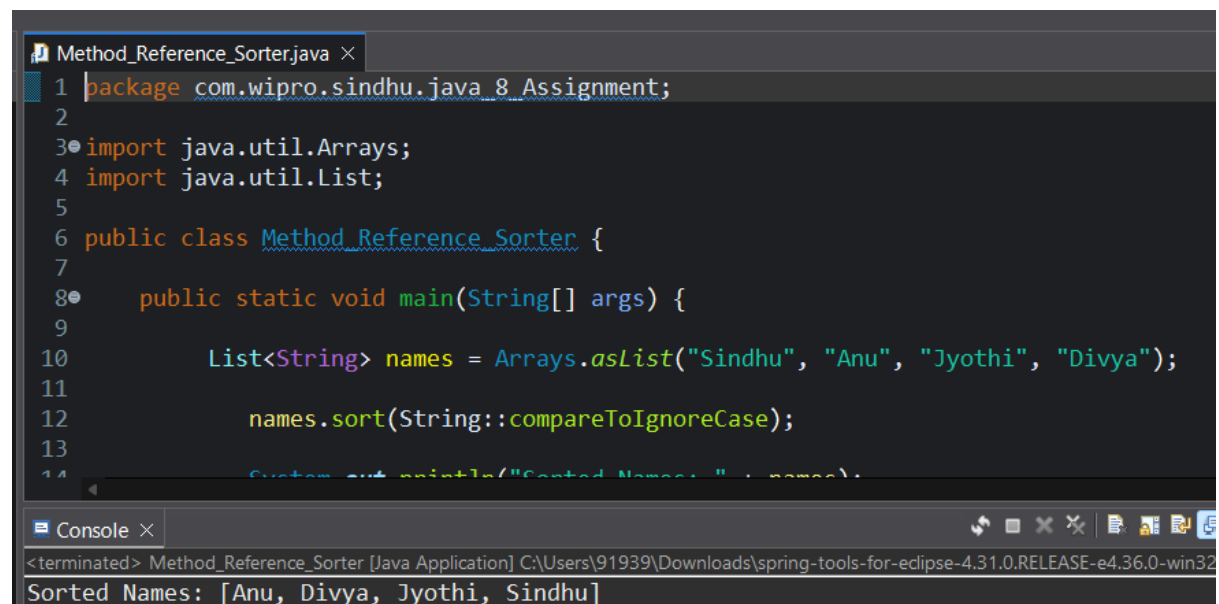


The screenshot shows the Eclipse IDE with a file named `Greetings_Printer.java` open. The code defines a package `com.wipro.sindhu.java_8_Assignment`, a functional interface `MessagePrinter` with a `printMessage` method, and a class `Greeting_Service`. The console output shows the result of running the application: "Hello, Sindhu! Welcome to Java 8."

```
1 package com.wipro.sindhu.java_8_Assignment;
2
3
4
5 @FunctionalInterface
6 interface MessagePrinter{
7
8     void printMessage(String message);
9
10 }
11
12
13 class Greeting_Service {
14
```

Console Output:
<terminated> Greetings_Printer (1) [Java Application] C:\Users\91939\Downloads\spring-tools-for-eclipse-4.31.0.RELEASE-e4
Hello, Sindhu! Welcome to Java 8.

Method_Reference_Sorter :-



The screenshot shows the Eclipse IDE with a file named `Method_Reference_Sorter.java` open. The code imports `java.util.Arrays` and `java.util.List`, and defines a public class `Method_Reference_Sorter` with a `main` method. The `main` method creates a list of names, sorts them using `compareToIgnoreCase`, and prints the sorted list. The console output shows the sorted names: "Sorted Names: [Anu, Divya, Jyothi, Sindhu]"

```
1 package com.wipro.sindhu.java_8_Assignment;
2
3 import java.util.Arrays;
4 import java.util.List;
5
6 public class Method_Reference_Sorter {
7
8     public static void main(String[] args) {
9
10         List<String> names = Arrays.asList("Sindhu", "Anu", "Jyothi", "Divya");
11
12         names.sort(String::compareToIgnoreCase);
13
14         System.out.println("Sorted Names: " + names);
15
```

Console Output:
<terminated> Method_Reference_Sorter [Java Application] C:\Users\91939\Downloads\spring-tools-for-eclipse-4.31.0.RELEASE-e4.36.0-win32
Sorted Names: [Anu, Divya, Jyothi, Sindhu]

Name_Finder :-

```
Name_Finder.java x
1 package com.wipro.sindhu.java_8_Assignment;
2
3 import java.util.Arrays;
4 import java.util.List;
5 import java.util.stream.Collectors;
6
7 public class Name_Finder {
8
9     public static void main(String[] args) {
10
11         List<String> names = Arrays.asList("Anu", "Bhanu", "Arjun", "Sindhu", "Akhil", "Divya");
12
13         // Filter names that start with "A"
14         List<String> aNames = names.stream()
```

Name_Sorter :-

```
Name_Sorter.java ×
1 package com.wipro.sindhu.java_8_Assignment;
2
3 import java.util.Arrays;
4 import java.util.Collections;
5 import java.util.List;
6
7 public class Name_Sorter {
8
9     public static void main(String[] args) {
10         // TODO Auto-generated method stub
11
12         List<String> names = Arrays.asList("Sindhu", "Priya", "Jyothi", "Vinay", "Ganga");
13
14         // sort using lambda
```

Parallel_Square_Printer :-

```
Parallel_Square_Printer.java ×
1 package com.wipro.sindhu.java_8_Assignment;
2
3 import java.util.Arrays;
4 import java.util.List;
5
6 public class Parallel_Square_Printer {
7
8     public static void main(String[] args) {
9
10         List<Integer> nums = Arrays.asList(1, 2, 3, 4, 5);
11
12         nums.parallelStream()
13             .forEach(n -> System.out.println("Square of " + n + " = " + (n * n)
14                 + " - Thread: " + Thread.currentThread().getName()));
15     }
16 }
```

Console ×

<terminated> Parallel_Square_Printer (1) [Java Application] C:\Users\91939\Downloads\spring-tools-for-ecclipse-4.31.0.RELEASE-e4.36.0-win32.win32
Square of 4 = 16 - Thread: ForkJoinPool.commonPool-worker-4
Square of 2 = 4 - Thread: ForkJoinPool.commonPool-worker-1
Square of 3 = 9 - Thread: main
Square of 5 = 25 - Thread: ForkJoinPool.commonPool-worker-2
Square of 1 = 1 - Thread: ForkJoinPool.commonPool-worker-3

Pretty_Joiner :-

```
Pretty_Joiner.java ×
1 package com.wipro.sindhu.java_8_Assignment;
2
3 import java.util.Arrays;
4 import java.util.List;
5 import java.util.stream.Collectors;
6
7 public class Pretty_Joiner {
8
9     public static void main(String[] args) {
10
11         List<String> cities = Arrays.asList("Hyderabad", "Bangalore", "Chennai", "Mumbai", "Delhi");
12
13         String result = cities.stream()
14             .collect(Collectors.joining(", "));
15     }
16 }
```

Console ×

<terminated> Pretty_Joiner (1) [Java Application] C:\Users\91939\Downloads\spring-tools-for-ecclipse-4.31.0.RELEASE-e4.36.0-win32.win32.x86_64 (1)\sts-4.31.0.RELEASE\plu
City List: Hyderabad, Bangalore, Chennai, Mumbai, Delhi

Safe_Driver :-

```
Safe_Driver.java ×
1 package com.wipro.sindhu.java_8_Assignment;
2
3 import java.util.Optional;
4
5 public class Safe_Driver {
6
7     public static Optional<Double> divide(double a, double b) {
8         if (b == 0) {
9             return Optional.empty();
10        } else {
11            return Optional.of(a / b);
12        }
13    }
14}

Console ×
<terminated> Safe_Driver (1) [Java Application] C:\Users\91939\Downloads\spring-tools-for-eclipse-4.31.0.RELEASE-e4.36.0-
Result 1:
Result: 10.0
Result 2:
Not Allowed
```

Word_Counter :-

```
Word_Counter.java ×
1 package com.wipro.sindhu.java_8_Assignment;
2
3 import java.util.Arrays;
4 import java.util.List;
5
6 public class Word_Counter {
7
8     public static void main(String[] args) {
9
10        List<String> names = Arrays.asList("Sindhu", "Priya", "Anuradha", "Manju", "Ramya", "Krishna");
11
12        long count = names.stream()
13            .filter(name -> name.length() > 5)
14            .count();
15    }
16}

Console ×
<terminated> Word_Counter (1) [Java Application] C:\Users\91939\Downloads\spring-tools-for-eclipse-4.31.0.RELEASE-e4.36.0-win32.win32.x86_64 (1)\sts-4.31.0.RELEASE
Names longer than 5 characters: 3
```