JAVA8 FEATURES

Assignment 1: Simple Name Sorter

```java
package assignment;

import java.util.Arrays;
import java.util.List;

public class One {

    public static void main(String[] args) {

        List<String> name=Arrays.asList("Archana","Teja","Sravani","John","Krishna");
        name.sort((n1,n2)->n1.compareToIgnoreCase(n2));
        System.out.println(name);



    }

}
```

Problems @ Javadoc Declaration Console × Progress
<terminated> One [Java Application] D:\sts\sts-4.31.0.RELEASE\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_6
[Archana, John, Krishna, Sravani, Teja]

Assignment 2: Safe Divider

```java
package assignment;

import java.util.Optional;

public class Two {
    public static Optional<Double> safeDivide(double a, double b) {
        return b == 0 ? Optional.empty() : Optional.of(a / b);
    }

    public static void main(String[] args) {
        System.out.println(safeDivide(10, 2).orElse(Double.NaN));
        System.out.println(safeDivide(5, 0).map(String::valueOf).orElse("Not Allowed"));




    }

}
```

Problems @ Javadoc Declaration Console × Progress
<terminated> Two [Java Application] D:\sts\sts-4.31.0.RELEASE\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_21.0.7.v20250502-
5.0
Not Allowed

Assignment 3: Greetings Printer

```java
package assignment;

@FunctionalInterface
interface Message{
    void print(String message);
}
public class Three {
    public static void greet(Message printer) {
        printer.print("Hello! Welcome...");
    }

    public static void main(String[] args) {
        greet(msg->System.out.println(msg));

    }

}
```

Problems @ Javadoc Declaration Console ✕ Progress
<terminated> Three [Java Application] D:\sts\sts-4.31.0.RELEASE\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_21.0.7.v20250502-0916\jre
Hello! Welcome...

Assignment 4: Default Power

```java
package assignment;

interface Power{
    void turnOn();//abstract method
    default void turnOff() {
        System.out.println("PowerOff by default method");
    }

}
public class Four implements Power {
    public void turnOn() {
        System.out.println("Power On");
    }

    public static void main(String[] args) {

        Four f=new Four();
        f.turnOn();
        f.turnOff();


    }

}
```

Problems @ Javadoc Declaration Console ✕ Progress
<terminated> Four [Java Application] D:\sts\sts-4.31.0.RELEASE\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_21.0.7.v20
Power On
PowerOff by default method

Assignment 5: A-Name Finder

```java
package assignment;

import java.util.Arrays;
import java.util.List;
import java.util.stream.Collectors;

public class Five {

    public static void main(String[] args) {
        List<String> names=Arrays.asList("Archana","Shreshta","Teja","Krishna","Akshara");
        List<String> name=names.stream()
                            .filter(n->n.startsWith("A"))
                            .collect(Collectors.toList());
        System.out.println("Names Those starting with A :  "+name );


    }

}
```

Problems @ Javadoc Declaration Console × Progress

<terminated> Five [Java Application] D:\sts\sts-4.31.0.RELEASE\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_21.0.7.v20250502-0916\jre\bin\javaw.exe (11-Aug

Names Those starting with A : [Archana, Akshara]

Assignment 6: Word Counter

```java
package assignment;

import java.util.Arrays;
import java.util.List;

public class Six {

    public static void main(String[] args) {

        List<String> names=Arrays.asList("Archana","Shreshta","Teja","Krishna","Sai","Akshara","Manasa");
        Long  count=names.stream()
                        .filter(n->n.length()>5)
                        .count();
        System.out.println("Number of Names with length >5 are :  "+count);



    }

}
```

Problems @ Javadoc Declaration Console × Progress

<terminated> Six [Java Application] D:\sts\sts-4.31.0.RELEASE\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_21.0.7.v20250502-0916\jre\bin\javaw.exe (11-Aug-20

Number of Names with length >5 are : 5

Assignment 7: Even Number Collector

```java
package assignment;

import java.util.Arrays;
import java.util.List;
import java.util.stream.Collectors;

public class Seven {

    public static void main(String[] args) {
        List<Integer> numbers=Arrays.asList(1,2,3,4,5,6,7,8,9,10);
        List<Integer> num=numbers.stream()
                            .filter(n->n%2==0)
                            .collect(Collectors.toList());
        System.out.println(num);
    }

}
```

```
[2, 4, 6, 8, 10]
```

Assignment 8: Pretty Joiner

```java
package assignment;

import java.util.Arrays;
import java.util.List;
import java.util.stream.Collectors;

public class Eight {

    public static void main(String[] args) {
        List<String> city= Arrays.asList("Mumbai","Hyderabad","Chennai","Banglore","Kochi");
        String cities=city.stream()
                            .collect(Collectors.joining(","));

        System.out.println(cities);


    }
}
```

```
Mumbai,Hyderabad,Chennai,Banglore,Kochi
```

Assignment 9: Parallel Square Printer

```java
package assignment;

import java.util.Arrays;
import java.util.List;

public class Nine {

    public static void main(String[] args) {
        List<Integer> num=Arrays.asList(1,2,3,4,5,6,7,8,9,10);
        num.parallelStream()
            .forEach(n->System.out.println("Square of "+n+ "is " +(n*n) ));

    }

}
```

Problems | @ Javadoc | Declaration | Console × | Progress

<terminated> Nine [Java Application] D:\sts\sts-4.31.0.RELEASE\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_21.0.7.v20250502-0916

```
Square of 7is 49
Square of 8is 64
Square of 10is 100
Square of 9is 81
Square of 3is 9
Square of 5is 25
Square of 1is 1
Square of 4is 16
Square of 6is 36
Square of 2is 4
```

Assignment 10: Frequency Mapper

```java
package assignment;

import java.util.Arrays;
import java.util.List;
import java.util.Map;
import java.util.stream.Collectors;

public class Ten {

    public static void main(String[] args) {

        List<String> names=Arrays.asList("Archana","Shreshta","Teja","Krishna","Sai","Akshara","Manasa","Archana","Akshara");
        Map<String,Long> freqMap=names.stream()
                            .collect(Collectors.groupingBy(n -> n, Collectors.counting()));
        System.out.println(freqMap);


    }
}
```

Problems | @ Javadoc | Declaration | Console × | Progress

<terminated> Ten [Java Application] D:\sts\sts-4.31.0.RELEASE\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_21.0.7.v20250502-0916\jre\bin\javaw.exe (11-Aug-2025, 10:15:27 am

```
{Akshara=2, Krishna=1, Manasa=1, Sai=1, Shreshta=1, Teja=1, Archana=2}
```

Assignment 11: Custom Filter Chain

```java
Eleven.java ×
 2
 3⊝ import java.util.Arrays;
 4  import java.util.List;
 5  import java.util.function.Predicate;
 6  import java.util.stream.Collectors;
 7
 8  public class Eleven {
 9
10⊝     public static void main(String[] args) {
11          List<String> names = Arrays.asList("Anita", "Asha", "Amala", "Anya", "Alexa", "Sonia");
12
13          Predicate<String> startsWithA = name -> name.startsWith("A");
14          Predicate<String> endsWithA = name -> name.endsWith("a");
15
16          List<String> filtered = names.stream()
17                                      .filter(startsWithA.and(endsWithA))
18                                      .collect(Collectors.toList());
19
20          System.out.println("Names starting with A and ending with a: " + filtered);
21      }
22
23  }
24
```

Problems @ Javadoc Declaration Console × Progress

<terminated> Eleven [Java Application] D:\sts\sts-4.31.0.RELEASE\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_21.0.7.v20250502-0916\jre\bin\ja

Names starting with A and ending with a: [Anita, Asha, Amala, Anya, Alexa]

Assignment 12: Method Reference Sorter

```java
Twelve.java ×
 1  package assignment;
 2
 3⊝ import java.util.Arrays;
 4  import java.util.List;
 5
 6  public class Twelve {
 7
 8⊝     public static void main(String[] args) {
 9          List<String> names=Arrays.asList("Archana","Shreshta","Teja","Krishna","Sai","Akshara","Manasa","Archana","Akshara");
10          names.sort(String::compareToIgnoreCase);
11          System.out.println(names);
12      }
13
14  }
15
```

Problems @ Javadoc Declaration Console × Progress

<terminated> Twelve [Java Application] D:\sts\sts-4.31.0.RELEASE\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_21.0.7.v20250502-0916\jre\bin\javaw.exe (11-Aug-202

[Akshara, Akshara, Archana, Archana, Krishna, Manasa, Sai, Shreshta, Teja]