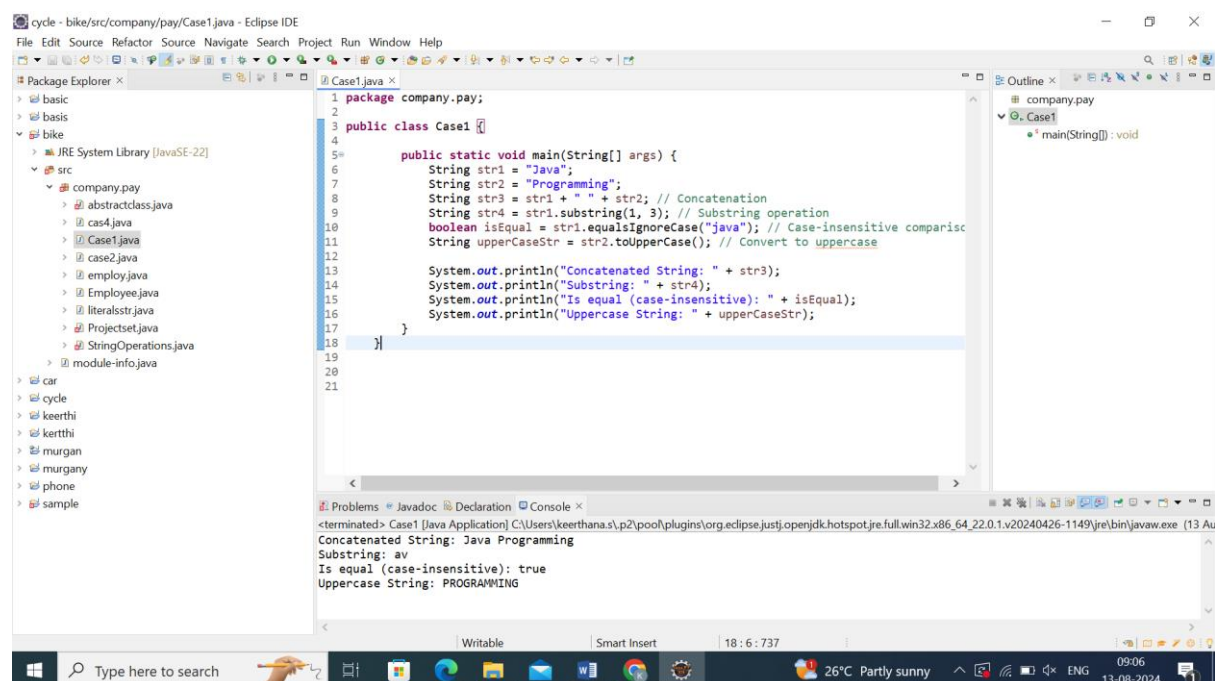Weekend Assignment in Java

1. Please find case 1 and mention the result for the mentioned statements using strings.

2. Find case 2 and mention the result for the statements using integers.

3. Find case 3 and mention how Basic I/O resources are getting closed and the difference that you implemented earlier in the code - copyBytes.java

4. Find case 4 and mention the order for 1,2 and 3 using collections

Answers:-

Case-2


```java
package company.pay;

public class Case1 {

    public static void main(String[] args) {
        String str1 = "Java";
        String str2 = "Programming";
        String str3 = str1 + " " + str2; // Concatenation
        String str4 = str1.substring(1, 3); // Substring operation
        boolean isEqual = str1.equalsIgnoreCase("java"); // Case-insensitive compariso
        String upperCaseStr = str2.toUpperCase(); // Convert to uppercase

        System.out.println("Concatenated String: " + str3);
        System.out.println("Substring: " + str4);
        System.out.println("Is equal (case-insensitive): " + isEqual);
        System.out.println("Uppercase String: " + upperCaseStr);
    }
}
```

Console output:
```
<terminated> Case1 [Java Application] C:\Users\keerthana.s\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_22.0.1.v20240426-1149\jre\bin\javaw.exe (13 Au
Concatenated String: Java Programming
Substring: av
Is equal (case-insensitive): true
Uppercase String: PROGRAMMING
```

File Edit Source Refactor Source Navigate Search Project Run Window Help

Package Explorer ×

> basic
> basis
∨ bike
  > JRE System Library [JavaSE-22]
  ∨ src
    ∨ company.pay
      > abstractclass.java
      > cas4.java
      > Case1.java
      > case2.java
      > Case22.java
      > Case3.java
      > employ.java
      > Employee.java
      > literalsstr.java
      > Projectset.java
      > StringOperations.java
      > module-info.java
> car
> cycle
> keerthi
> kertthi
> murgan
> murgany
> phone
> sample

Case1.java   Case22.java   Case3.java ×

```java
1  package company.pay;
2  import java.io.FileInputStream;
3  import java.io.FileOutputStream;
4  import java.io.IOException;
5
6  public class Case3 {
7
8      public class CopyBytes {
9          public static void main(String[] args) {
10             try (FileInputStream in = new FileInputStream("source.txt");
11                  FileOutputStream out = new FileOutputStream("destination.txt")) {
12
13                 int byteData;
14                 while ((byteData = in.read()) != -1) {
15                     out.write(byteData);
16                 }
17                 System.out.println("File copied successfully!");
18
19             } catch (IOException e) {
20                 Syste
21             }
22         }
23     }
24
25 }
26
```

java.io.IOException

Signals that an I/O exception of some sort has occurred. This class is the general class of exceptions produced by failed or interrupted I/O operations.

Since:
  1.0

See Also:
  java.io.InputStream
  java.io.OutputStream

Press 'F2' for focus

Problems Javadoc Declara

<terminated> Case1 [Java Applicati   bin\javaw.exe (13 Au
Concatenated String: Java
Substring: av
Is equal (case-insensitive): true
Uppercase String: PROGRAMMING

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Package Explorer ×

- basic
- basis
- bike
  - JRE System Library [JavaSE-22]
  - src
    - company.pay
      - abstractclass.java
      - cas4.java
      - Case1.java
      - case2.java
      - Case22.java
      - Case3.java
      - employ.java
      - Employee.java
      - literalsstr.java
      - Projectset.java
      - StringOperations.java
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Case1.java | Case22.java | Case3.java ×

```java
1 package company.pay;
2 import java.io.FileInputStream;
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4 import java.io.IOException;
5
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8     public class CopyBytes {
9         public static void main(String[] args) {
10            try (FileInputStream in = new FileInputStream("source.txt");
11                 FileOutputStream out = new FileOutputStream("destination.txt")) {
12
13                int byteData;
14                while ((byteData = in.read()) != -1) {
15                    out.write(byteData);
16                }
17                System.out.println("File copied successfully!");
18
19            } catch (IOException e) {
20                System.err.println("An IOException occurred: " + e.getMessage());
21            }
22        }
23    }
24
25 }
26
```

Outline ×

- company.pay
  - Case3

Problems | Javadoc | Declaration | Console ×

<terminated> Case1 [Java Application] C:\Users\keerthana.s\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_22.0.1.v20240426-1149\jre\bin\javaw.exe (13 Au
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Writable   Smart Insert   5 : 1 : 118

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Case1.java   Case22.java   Case3.java   Case4.java ×

```java
1 package company.pay;
2 import java.util.ArrayList;
3 import java.util.Collections;
4 import java.util.List;
5
6 public class Case4 {
7
8     public class SortCollections {
9         public static void main(String[] args) {
10            List<Integer> list = new ArrayList<>();
11            list.add(3);
12            list.add(1);
13            list.add(2);
14
15            // Sort in natural (ascending) order
16            Collections.sort(list);
17            System.out.println("Sorted in Ascending Order: " + list);
18
19            // Sort in reverse (descending) order
20            Collections.sort(list, Collections.reverseOrder());
21            System.out.println("Sorted in Descending Order: " + list);
22        }
23    }
24 }
25
```

Outline ×
company.pay
Case4

Problems   Javadoc   Declaration   Console ×

<terminated> Case1 [Java Application] C:\Users\keerthana.s\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_22.0.1.v20240426-1149\jre\bin\javaw.exe (13 Au

```
Concatenated String: Java Programming
Substring: av
Is equal (case-insensitive): true
Uppercase String: PROGRAMMING
```

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