```java
import java.util.*;
public class Main {
  public static void Main(String[] args) throws Exception
    Scanner sc = new Scanner(System.in);
    System.out.println("Author: T.S.S.S.N.V.Pavan Kumar
    System.out.println("Enter the first string:");
    String input = sc.nextLine();
    System.out.println("Enter the second string:");
    String rotation = sc.nextLine();
    if (checkRotatation(input, rotation)) {
      System.out.println(input + " and " + rotation
        + " are rotation of each other");
    } else {
      System.out.println("they are not rotation of another"
    }
    sc.close();
  }
  public static boolean checkRotatation(String original, S
    if (original.length() != rotation.length()) {
      return false;
    }
    String concatenated = original + original;
    if (concatenated.indexOf(rotation) != -1) {
      return true;
    }
    return false;
  }
}
```

× Terminal ▢

Author: T.S.S.S.N.V.Pavan Kumar
SAP ID:51834685
Enter the first string:
Hello
Enter the second string:
world
they are not rotation of another

Process finished.

2.

```
1   lass Demo{
2   public static void Main (String args[]){
3    System.out.println(" Author: T.S.S.S.N.V.Pavan Kumar \
4    for(int i=0;i<=5;i++){
5      for(int j=0;j<i;j++){
6        if(j==0||j==i-1){
7          System.out.print("I");
8        }
9        else if(i==5&&j==2){
10         System.out.print("@");
11       }
12       else{
13         System.out.print("!");
14       }
15     }
16     System.out.println();
17   }
18 }
19
```

✕   Terminal   ▱

```
Author: T.S.S.S.N.V.Pavan Kumar
sap id:51834685

I
I I
I!I
I!!I
I!@!I

Process finished.
```

4. █

```java
import java.util.Arrays;
class Main
{
    public static void swap(int[] arr, int a, int b)
    {
        int temp = arr[a];
        arr[a] = arr[b];
        arr[b] = temp;
    }
    public static void bubbleSort(int[] arr, int x)
    {
        for (int a = 0; a < x - 1; a++) {
            if (arr[a] > arr[a + 1]) {
                swap(arr, a, a + 1);
            }
        }
        if (x - 1 > 1) {
            bubbleSort(arr, x - 1);
        }
    }
    public static void Main(String[] args)
    {
        int[] arr = { 3, 5, 8, 4, 1, 9, -2 };
        bubbleSort(arr, arr.length);
        System.out.println("Author: T.S.S.S.N.V.Pava
        System.out.println(Arrays.toString(arr));
    }
}
```

Terminal

```
Author: T.S.S.S.N.V.Pavan Kumar
 SAP ID:5183685
[-2, 1, 3, 4, 5, 8, 9]

Process finished.
```

5.