Java Lab-7 Strings

Praneesh R V
CB.SC.U4CYS23036

Qn1,

qn1.java M

Sem4 > Java Programming Lab > Lab7 > qn1.java > ...

```java
import java.util.Scanner;
public class qn1 {
    Run | Debug
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        System.out.println("Enter a string:");
        String input = scanner.nextLine();
        scanner.close();

        String result = removeConsecutiveVowels(input);
        System.out.println("Output: " + result);
    }
    private static String removeConsecutiveVowels(String str) {
        StringBuilder sb = new StringBuilder();
        char[] vowels = {'a', 'e', 'i', 'o', 'u', 'A', 'E', 'I', 'O', 'U'};
        boolean lastWasVowel = false;

        for (char c : str.toCharArray()) {
            boolean isVowel = false;
            for (char v : vowels) {
                if (c == v) {
                    isVowel = true;
                    break;
                }
            }

            if (!(lastWasVowel && isVowel)) {
                sb.append(c);
            }
            lastWasVowel = isVowel;
        }
        return sb.toString();
    }
}
```

output:

```
cd "/home/crimsonshadow/Praneesh/Academics/Sem4/Java Programming Lab/Lab7/" && javac qn1.java && java qn1
┌──(crimsonshadow㉿CrimsonShadow)-[~/Praneesh/Academics]
└─$ cd "/home/crimsonshadow/Praneesh/Academics/Sem4/Java Programming Lab/Lab7/" && javac qn1.java && java qn1
Enter a string:
baacaeiumn
Output: bacamn
```

Qn2,

qn2.java M

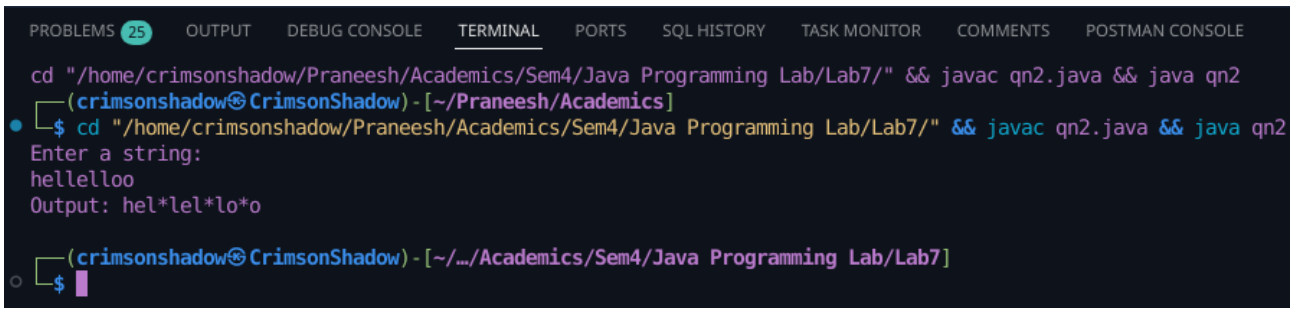
Sem4 > Java Programming Lab > Lab7 > qn2.java > qn2

```java
import java.util.Scanner;
public class qn2 {
    Run | Debug
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        System.out.println("Enter a string:");
        String input = scanner.nextLine();
        scanner.close();
        String result = addAsterisks(input);
        System.out.println("Output: " + result);
    }
    public static String addAsterisks(String str) {
        if (str == null || str.length() <= 1) {
            return str;
        }

        StringBuilder sb = new StringBuilder();
        sb.append(str.charAt(0));

        for (int i = 1; i < str.length(); i++) {
            if (str.charAt(i) == str.charAt(i - 1)) {
                sb.append('*');
            }
            sb.append(str.charAt(i));
        }
        return sb.toString();
    }
}
```

output:


PROBLEMS 25
OUTPUT
DEBUG CONSOLE
TERMINAL
PORTS
SQL HISTORY
TASK MONITOR
COMMENTS
POSTMAN CONSOLE
cd "/home/crimsonshadow/Praneesh/Academics/Sem4/Java Programming Lab/Lab7/" && javac qn2.java && java qn2
(crimsonshadow㉿CrimsonShadow)-[~/Praneesh/Academics]
$ cd "/home/crimsonshadow/Praneesh/Academics/Sem4/Java Programming Lab/Lab7/" && javac qn2.java && java qn2
Enter a string:
hellelloo
Output: hel*lel*lo*o
(crimsonshadow㉿CrimsonShadow)-[~/…/Academics/Sem4/Java Programming Lab/Lab7]
$

Qn3,

qn3.java M

Sem4 > Java Programming Lab > Lab7 > qn3.java > qn3

```java
import java.util.Scanner;
public class qn3 {
    Run | Debug
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        String ticketCode = scanner.nextLine();
        scanner.close();
        if (isAlternating(ticketCode)) {
            System.out.println("Yes");
        } else {
            System.out.println("No");
        }
    }
    private static boolean isAlternating(String code) {
        if (code.length() < 2) {
            return false;
        }
        char first = code.charAt(0);
        char second = code.charAt(1);
        if (first == second) {
            return false;
        }
        for (int i = 0; i < code.length(); i++) {
            if (i % 2 == 0 && code.charAt(i) != first) {
                return false;
            }
            if (i % 2 == 1 && code.charAt(i) != second) {
                return false;
            }
        }
        return true;
    }
}
```

Output:

```
cd "/home/crimsonshadow/Praneesh/Academics/Sem4/Java Programming Lab/Lab7/" && javac qn3.java && java qn3
┌──(crimsonshadow㉿CrimsonShadow)-[~/Praneesh/Academics]
└─$ cd "/home/crimsonshadow/Praneesh/Academics/Sem4/Java Programming Lab/Lab7/" && javac qn3.java && java qn3
zazaza
Yes
```

Qn4,

qn4.java M

Sem4 > Java Programming Lab > Lab7 > qn4.java > qn4

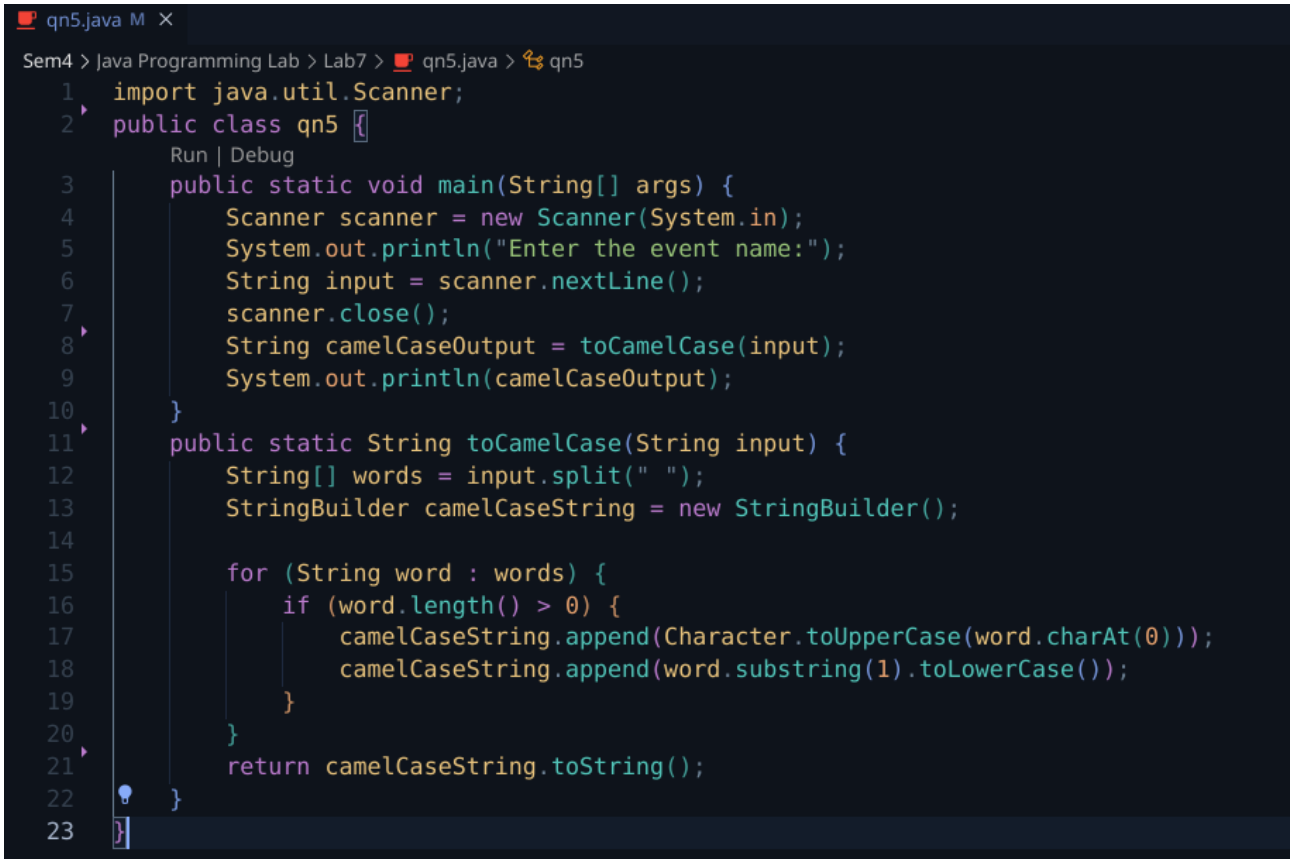
```java
import java.util.Scanner;
public class qn4 {
    Run | Debug
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        int N = scanner.nextInt();
        scanner.nextLine();
        String[] actions = scanner.nextLine().split(" ");
        boolean followedInstructions = true;
        for (int i = 0; i < N - 1; i++) {
            if (actions[i].equals("cookie") && !actions[i + 1].equals("juice")) {
                followedInstructions = false;
                break;
            }
        }
        if (actions[N - 1].equals("cookie")) {
            followedInstructions = false;
        }

        if (followedInstructions) {
            System.out.println("Yes");
        } else {
            System.out.println("No");
        }
        scanner.close();
    }
}
```

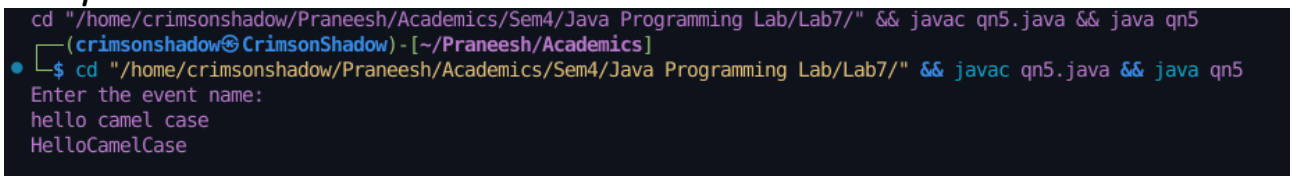
Output:

```
cd "/home/crimsonshadow/Praneesh/Academics/Sem4/Java Programming Lab/Lab7/" && javac qn4.java && java qn4
┌──(crimsonshadow㉿CrimsonShadow)-[~/Praneesh/Academics]
└─$ cd "/home/crimsonshadow/Praneesh/Academics/Sem4/Java Programming Lab/Lab7/" && javac qn4.java && java qn4
5
cookie juice juice cookie juice
Yes
```

Qn5,


qn5.java M
Sem4 > Java Programming Lab > Lab7 > qn5.java > qn5
import java.util.Scanner;
public class qn5 {
Run | Debug
public static void main(String[] args) {
Scanner scanner = new Scanner(System.in);
System.out.println("Enter the event name:");
String input = scanner.nextLine();
scanner.close();
String camelCaseOutput = toCamelCase(input);
System.out.println(camelCaseOutput);
}
public static String toCamelCase(String input) {
String[] words = input.split(" ");
StringBuilder camelCaseString = new StringBuilder();
for (String word : words) {
if (word.length() > 0) {
camelCaseString.append(Character.toUpperCase(word.charAt(0)));
camelCaseString.append(word.substring(1).toLowerCase());
}
}
return camelCaseString.toString();
}
}

Output:


cd "/home/crimsonshadow/Praneesh/Academics/Sem4/Java Programming Lab/Lab7/" && javac qn5.java && java qn5
(crimsonshadow㉿CrimsonShadow)-[~/Praneesh/Academics]
$ cd "/home/crimsonshadow/Praneesh/Academics/Sem4/Java Programming Lab/Lab7/" && javac qn5.java && java qn5
Enter the event name:
hello camel case
HelloCamelCase

Qn6,

qn6.java U

Sem4 > Java Programming Lab > Lab7 > qn6.java > qn6 > isValidEmail(String)

```java
import java.util.Scanner;

public class qn6 {
    Run | Debug
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        String emailAddress = scanner.nextLine();
        scanner.close();
        if (isValidEmail(emailAddress)) {
            System.out.println("Valid email address");
        } else {
            System.out.println("Invalid email address");
        }
    }

    public static boolean isValidEmail(String email) {
        String[] validDomains = { "com", "in", "net", "org" };
        int atIndex = email.indexOf('@');
        if (atIndex == -1) {
            return false;
        }
        String domainPart = email.substring(atIndex + 1);
        for (String domain : validDomains) {
            if (domainPart.endsWith(domain)) {
                return true;
            }
        }
        return false;
    }
}
```

Output:

```
cd "/home/crimsonshadow/Praneesh/Academics/Sem4/Java Programming Lab/Lab7/" && javac qn6.java && java qn6
┌──(crimsonshadow㉿CrimsonShadow)-[~/Praneesh/Academics]
└─$ cd "/home/crimsonshadow/Praneesh/Academics/Sem4/Java Programming Lab/Lab7/" && javac qn6.java && java qn6
agsg@gmail.com
Valid email address
```

Qn7,

qn7.java U

Sem4 > Java Programming Lab > Lab7 > qn7.java > qn7

```java
import java.util.*;
public class qn7 {
    Run | Debug
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        String mobileNumber = scanner.nextLine();
        scanner.close();
        if (isValidMobileNumber(mobileNumber)) {
            System.out.println("Mobile number valid");
        } else {
            System.out.println("Mobile number invalid");
        }
    }

    public static boolean isValidMobileNumber(String mobileNumber) {
        if (mobileNumber.indexOf("+91") == 0) {
            StringBuilder remainingNumber = new StringBuilder(mobileNumber.substring(3));
            if (remainingNumber.length() == 10 &&
                    isAllDigits(remainingNumber.toString())) {
                return true;
            }
        }
        return false;
    }

    public static boolean isAllDigits(String str) {
        for (int i = 0; i < str.length(); i++) {
            if (!Character.isDigit(str.charAt(i))) {
                return false;
            }
        }
        return true;
    }
}
```

Output:

```
cd "/home/crimsonshadow/Praneesh/Academics/Sem4/Java Programming Lab/Lab7/" && javac qn7.java && java qn7
┌──(crimsonshadow㉿CrimsonShadow)-[~/Praneesh/Academics]
└─$ cd "/home/crimsonshadow/Praneesh/Academics/Sem4/Java Programming Lab/Lab7/" && javac qn7.java && java qn7
+919876543210
Mobile number valid
```

Qn8,

qn8.java U

Sem4 > Java Programming Lab > Lab7 > qn8.java > qn8

```java
import java.util.Scanner;
public class qn8 {
    Run | Debug
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        String username = scanner.nextLine();
        String uppercaseUsername = username.toUpperCase();
        System.out.println(uppercaseUsername);
        scanner.close();
    }
}
```

Output:

```
cd "/home/crimsonshadow/Praneesh/Academics/Sem4/Java Programming Lab/Lab7/" && javac qn8.java && java qn8
┌──(crimsonshadow㉿CrimsonShadow)-[~/Praneesh/Academics]
└─$ cd "/home/crimsonshadow/Praneesh/Academics/Sem4/Java Programming Lab/Lab7/" && javac qn8.java && java qn8
hello wOrld
HELLO WORLD
```

Qn9,

qn9.java U

Sem4 > Java Programming Lab > Lab7 > qn9.java > qn9

```java
import java.util.Scanner;
public class qn9 {
    Run | Debug
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        String sentence = scanner.nextLine().trim();
        String gibberishText = scanner.nextLine().trim();
        scanner.close();
        if (sentence.contains(gibberishText)) {
            System.out.println("String is found in the sentence");
        } else {
            System.out.println("String is not found in the sentence");
        }
    }
}
```

Output:

```
cd "/home/crimsonshadow/Praneesh/Academics/Sem4/Java Programming Lab/Lab7/" && javac qn9.java && java qn9
┌──(crimsonshadow㉿CrimsonShadow)-[~/Praneesh/Academics]
└─$ cd "/home/crimsonshadow/Praneesh/Academics/Sem4/Java Programming Lab/Lab7/" && javac qn9.java && java qn9
one fine morning i went to a jog
went to
String is found in the sentence
```

Qn10,

qn10.java U

Sem4 > Java Programming Lab > Lab7 > qn10.java > qn10 > isSloganValid(String)

```java
import java.util.*;

public class qn10 {
    Run | Debug
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        String S = scanner.nextLine().trim();
        scanner.close();
        if (isSloganValid(S)) {
            System.out.println("Yes");
        } else {
            System.out.println("No");
        }
    }

    public static boolean isSloganValid(String S) {
        int[] frequency = new int[26];
        for (char c : S.toCharArray()) {
            frequency[c - 'a']++;
        }
        int totalLength = S.length();
        for (int i = 0; i < 26; i++) {
            int count = frequency[i];
            if (count > 0 && count == totalLength - count) {
                return true;
            }
        }
        return false;
    }
}
```

Output:

```
cd "/home/crimsonshadow/Praneesh/Academics/Sem4/Java Programming Lab/Lab7/" && javac qn10.java && java qn10
┌──(crimsonshadow㉿CrimsonShadow)-[~/Praneesh/Academics]
└─$ cd "/home/crimsonshadow/Praneesh/Academics/Sem4/Java Programming Lab/Lab7/" && javac qn10.java && java qn10
helloworld
No
```

Qn 11,

qn11.java U

Sem4 > Java Programming Lab > Lab7 > qn11.java > ...

```java
import java.util.*;
public class qn11 {
    Run | Debug
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        String s = scanner.nextLine();
        scanner.close();
        int countA = 0;
        int countB = 0;
        for (char ch : s.toCharArray()) {
            if (ch == 'a') {
                countA++;
            } else if (ch == 'b') {
                countB++;
            }
        }
        int result = Math.min(countA, countB);
        System.out.println(result);
    }
}
```

Output:

```
cd "/home/crimsonshadow/Praneesh/Academics/Sem4/Java Programming Lab/Lab7/" && javac qn11.java && java qn11
┌──(crimsonshadow㉿CrimsonShadow)-[~/Praneesh/Academics]
└─$ cd "/home/crimsonshadow/Praneesh/Academics/Sem4/Java Programming Lab/Lab7/" && javac qn11.java && java qn11
abbbaaaa
3
```

Qn12,

qn12.java U

Sem4 > Java Programming Lab > Lab7 > qn12.java > qn12

```java
import java.util.*;
public class qn12 {
    Run | Debug
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        String D = scanner.nextLine();
        if (canMakeUniform(D)) {
            System.out.println("Yes");
        } else {
            System.out.println("No");
        }
        scanner.close();
    }
    public static boolean canMakeUniform(String D) {
        int countZero = 0;
        int countOne = 0;
        for (char c : D.toCharArray()) {
            if (c == '0') {
                countZero++;
            } else if (c == '1') {
                countOne++;
            }
        }
        return countZero == 1 || countOne == 1;
    }
}
```

Output:

```
cd "/home/crimsonshadow/Praneesh/Academics/Sem4/Java Programming Lab/Lab7/" && javac qn12.java && java qn12
┌──(crimsonshadow㉿CrimsonShadow)-[~/Praneesh/Academics]
└─$ cd "/home/crimsonshadow/Praneesh/Academics/Sem4/Java Programming Lab/Lab7/" && javac qn12.java && java qn12
100
Yes
```

Qn13,

qn13.java 1, U

Sem4 > Java Programming Lab > Lab7 > qn13.java > qn13 > main(String[])

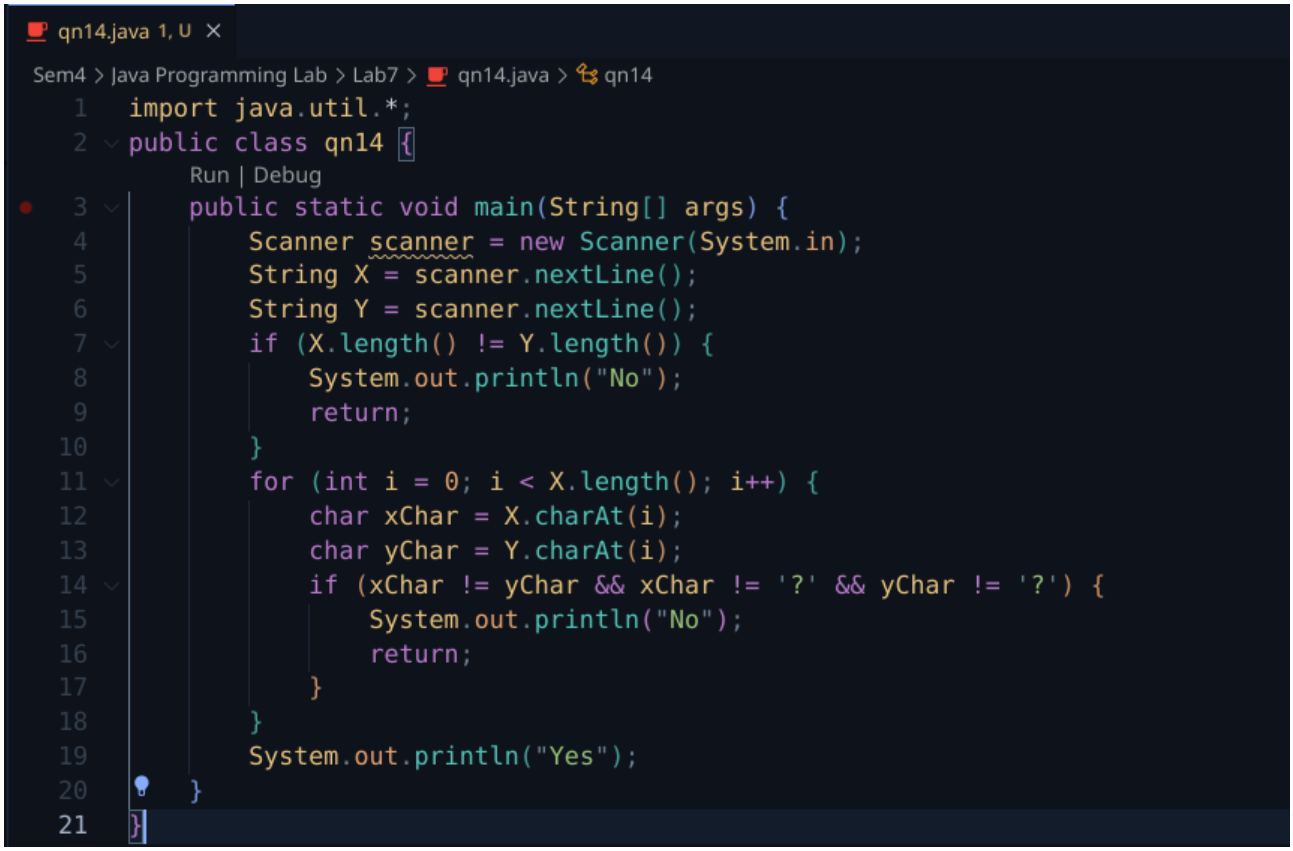
```java
import java.util.*;
public class qn13 {
    Run | Debug
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        String match = scanner.nextLine();
        int peterScore = 0;
        int horejsiScore = 0;
        for (char point : match.toCharArray()) {
            if (point == '1') {
                peterScore++;
            } else if (point == '0') {
                horejsiScore++;
            }
            if (peterScore >= 11 && horejsiScore < 10) {
                System.out.println("Win");
                return;
            }
            if (horejsiScore >= 11 && peterScore < 10) {
                System.out.println("Lose");
                return;
            }
            if (peterScore >= 10 && horejsiScore >= 10) {
                if (Math.abs(peterScore - horejsiScore) >= 2) {
                    if (peterScore > horejsiScore) {
                        System.out.println("Win");
                    } else {
                        System.out.println("Lose");
                    }

                    return;
                }
            }
        }
    }
}
```

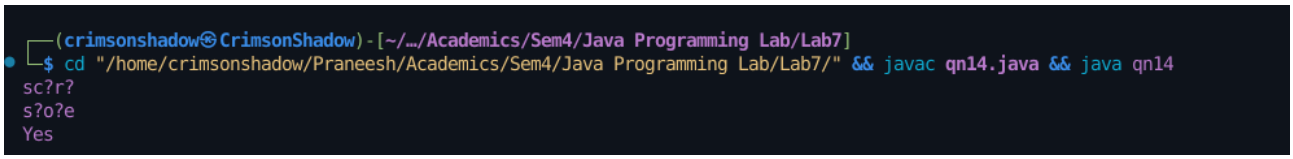
Output:

```
┌──(crimsonshadow㉿CrimsonShadow)-[~/…/Academics/Sem4/Java Programming Lab/Lab7]
└─$ cd "/home/crimsonshadow/Praneesh/Academics/Sem4/Java Programming Lab/Lab7/" && javac qn13.java && java qn13
0101111111111
Win
```

Qn14,


qn14.java 1, U
Sem4 > Java Programming Lab > Lab7 > qn14.java > qn14
import java.util.*;
public class qn14 {
Run | Debug
public static void main(String[] args) {
Scanner scanner = new Scanner(System.in);
String X = scanner.nextLine();
String Y = scanner.nextLine();
if (X.length() != Y.length()) {
System.out.println("No");
return;
}
for (int i = 0; i < X.length(); i++) {
char xChar = X.charAt(i);
char yChar = Y.charAt(i);
if (xChar != yChar && xChar != '?' && yChar != '?') {
System.out.println("No");
return;
}
}
System.out.println("Yes");
}
}

Output:


(crimsonshadow㉿CrimsonShadow)-[~/…/Academics/Sem4/Java Programming Lab/Lab7]
$ cd "/home/crimsonshadow/Praneesh/Academics/Sem4/Java Programming Lab/Lab7/" && javac qn14.java && java qn14
sc?r?
s?o?e
Yes

Qn15,

qn15.java 1, U

Sem4 > Java Programming Lab > Lab7 > qn15.java > ...

```java
import java.util.*;
public class qn15 {
    Run | Debug
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        String input = scanner.nextLine();
        StringBuilder result = new StringBuilder();
        for (int i = 0; i < input.length(); i++) {
            if (Character.isDigit(input.charAt(i))) {
                int count = Character.getNumericValue(input.charAt(i));
                char character = input.charAt(i + 1);
                for (int j = 0; j < count; j++) {
                    result.append(character);
                }
                i++;
            }
        }
        System.out.println(result.toString());
    }
}
```

Output:

```
┌──(crimsonshadow㉿CrimsonShadow)-[~/…/Academics/Sem4/Java Programming Lab/Lab7]
└─$ cd "/home/crimsonshadow/Praneesh/Academics/Sem4/Java Programming Lab/Lab7/" && javac qn15.java && java qn15
5a3>>
aaaaa>>>
```

Qn16,

qn16.java 1, U

Sem4 > Java Programming Lab > Lab7 > qn16.java > ...

```java
import java.util.Scanner;
public class qn16 {
    Run | Debug
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        String str = scanner.nextLine();
        int rotations = scanner.nextInt();
        int length = str.length();
        rotations = rotations % length;
        String rotatedString = str.substring(rotations) +
                str.substring(0, rotations);
        System.out.println(rotatedString);
    }
}
```

Output:

```
cd "/home/crimsonshadow/Praneesh/Academics/Sem4/Java Programming Lab/Lab7/" && javac qn16.java && java qn16
┌──(crimsonshadow㉿CrimsonShadow)-[~/Praneesh/Academics]
└─$ cd "/home/crimsonshadow/Praneesh/Academics/Sem4/Java Programming Lab/Lab7/" && javac qn16.java && java qn16
Rotation
5
ionRotat
```

Qn17,

qn17.java 1, U

Sem4 > Java Programming Lab > Lab7 > qn17.java > qn17

```java
import java.util.Scanner;
public class qn17 {
    Run | Debug
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        String input = scanner.nextLine();
        String result = input.replaceAll(" ", "");
        System.out.println(result);
    }
}
```

Output:

```
cd "/home/crimsonshadow/Praneesh/Academics/Sem4/Java Programming Lab/Lab7/" && javac qn17.java && java qn17
┌──(crimsonshadow㉿CrimsonShadow)-[~/Praneesh/Academics]
└─$ cd "/home/crimsonshadow/Praneesh/Academics/Sem4/Java Programming Lab/Lab7/" && javac qn17.java && java qn17
The king of the pirates
Thekingofthepirates
```

Qn18,

qn18.java 1, U

Sem4 > Java Programming Lab > Lab7 > qn18.java > qn18 > main(String[])

```java
import java.util.*;

public class qn18 {
    Run | Debug
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        String input = scanner.nextLine();
        StringBuilder result = new StringBuilder();
        for (int i = 0; i < input.length(); i++) {
            char ch = input.charAt(i);
            if (Character.isLowerCase(ch)) {
                result.append(Character.toUpperCase(ch));
            } else if (Character.isUpperCase(ch)) {
                result.append(Character.toLowerCase(ch));
            } else {
                result.append(ch);
            }
        }
        System.out.println(result.toString());
    }
}
```

Output:

```
┌──(crimsonshadow㉿CrimsonShadow)-[~/…/Academics/Sem4/Java Programming Lab/Lab7]
└─$ cd "/home/crimsonshadow/Praneesh/Academics/Sem4/Java Programming Lab/Lab7/" && javac qn18.java && java qn18
the 5 great oceans
THE 5 GREAT OCEANS
```