

1. Write a program to reverse a word using loop? (Not to use inbuilt functions)

Sample Input:

String: TEMPLE

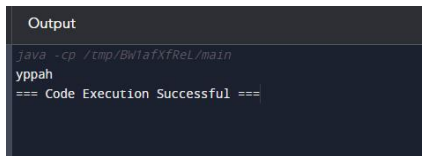
Sample Output:

Reverse String: ELPMET

CODE:

```
class main{
    public static void main(String[]args){
        String original="happy";
        String reverse="";
        for(int i =original.length()- 1;i>=0;i--){
            reverse+=original.charAt(i);
        }
        System.out.print(reverse);
    }
}
```

OUTPUT:



```
Output
java -cp ./tmp/BwIafXfReL/main
yppah
=== Code Execution Successful ===
```

2. Write a program to convert the given string to integer?

Sample Input:

String: 1234

Sample Output:

Output String: 1234

CODE:

```
class main{
    public static void main(String[]args){
        String str="1234";
        int num=Integer.parseInt(str);
        System.out.print(num);
    }
}
```

OUTPUT:

```
Output
java -cp /tmp/3ow3YK1qkQ/main
1234
=== Code Execution Successful ===
```

3. Write a program to check the entered user name is valid or not. Get both the inputs from the user.

CODE:

```
import java.util.Scanner;
class main{
    public static void main(String[] args){
        Scanner validcheck=new Scanner(System.in);
        System.out.print("enter a username:");
        String username=validcheck.nextLine();
        if (username.matches("[9-zA-Z0_9-]{3,17}$")){
            System.out.print("valid username.");
        }
        else{
            System.out.print("not valid username.");
        }
        validcheck.close();
    }
}
```

OUTPUT:

```
Output
java -cp /tmp/4CR2JyE2ux/main
enter a username:gunasri
valid username.
=== Code Execution Successful ===
```

4. Write a program that would sort a list of names in alphabetical order Ascending or Descending, choice get from the user?

Sample Input:

Banana  
Carrot  
Radish  
Apple  
Jack  
Order(A/D) : A

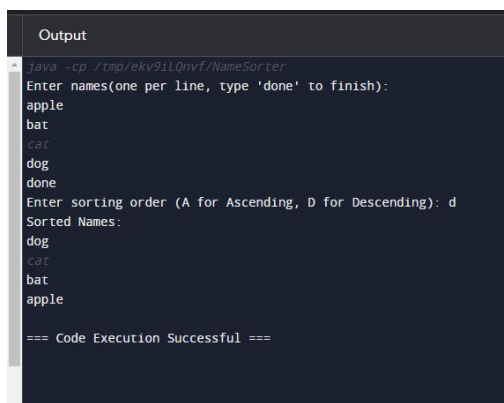
Sample Output:

Apple  
Banana  
Carrot  
Jack  
Radish

CODE:

```
import java.util.ArrayList;
import java.util.Collections;
import java.util.Scanner;
public class NameSorter {
    public static void main(String[] args) {
        ArrayList<String> names = new ArrayList<>();
        Scanner scanner = new Scanner(System.in);
        System.out.println("Enter names (one per line, type 'done' to finish):");
        String input;
        while (!(input = scanner.nextLine()).equalsIgnoreCase("done")) {
            names.add(input);
        }
        System.out.print("Enter sorting order (A for Ascending, D for Descending): ");
        String order = scanner.nextLine();
        if (order.equalsIgnoreCase("A")) {
            Collections.sort(names);
        } else if (order.equalsIgnoreCase("D")) {
            Collections.sort(names, Collections.reverseOrder());
        }
        System.out.println("Sorted Names:");
        for (String name : names) {
            System.out.println(name);
        }
    }
}
```

OUTPUT:



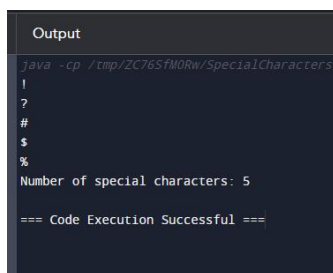
```
Output
java -cp /tmp/ekv9il0nvf/NameSorter
Enter names(one per line, type 'done' to finish):
apple
bat
cat
dog
done
Enter sorting order (A for Ascending, D for Descending): d
Sorted Names:
dog
cat
bat
apple
=== Code Execution Successful ===
```

5. Write a program to print the special characters separately and print number of Special characters in the line?

CODE:

```
public class SpecialCharactersCounter {
    public static void main(String[] args) {
        String line = "Hello! How are you? 123 #$$$%";
        int specialCharCount = 0;
        for (int i = 0; i < line.length(); i++) {
            char ch = line.charAt(i);
            if (!(Character.isLetterOrDigit(ch) || Character.isWhitespace(ch))) {
                System.out.println(ch);
                specialCharCount++;
            }
        }
        System.out.println("Number of special characters: " + specialCharCount);
    }
}
```

OUTPUT:



```
Output
java -cp ./tmp/ZC765FMORw/SpecialCharactersCounter.jar SpecialCharactersCounter
!
?
#
$
%
Number of special characters: 5
=== Code Execution Successful ===
```

6. Write a program to print the number of vowels in the given statement?

Sample Input:

Saveetha School of Engineering

Sample Output:

Number of vowels = 12

CODE:

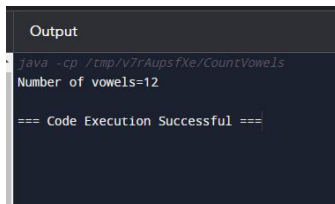
```
public class CountVowels {
    public static void main(String[] args) {
        String statement = "Saveetha School of Engineering";
        int vowelsCount = countVowels(statement);
        System.out.println("Number of vowels=" + vowelsCount);
    }
    public static int countVowels(String statement) {
        int count = 0;
        for (int i = 0; i < statement.length(); i++) {
            char ch = statement.charAt(i);
            if (isVowel(ch)) {
                count++;
            }
        }
        return count;
    }
    private static boolean isVowel(char ch) {
        return "AEIOUaeiou".indexOf(ch) != -1;
    }
}
```

```

        count++;
    }
}
return count;
}
public static boolean isVowel(char ch) {
    ch = Character.toUpperCase(ch);
    return ch=='A' || ch=='E' || ch=='I' || ch=='O' || ch=='U';
}
}

```

OUTPUT:



```

Output
java -cp ./tmp/v7rAupsfXe/CountVowels
Number of vowels=12

=== Code Execution Successful ===

```

7. Write a program to print consonants and vowels separately in the given word

Sample Input:

Given Word: Engineering

Sample Output:

Consonants: n g n r n g

Vowels: e i e i

CODE:

```

public class Main {
    public static void main(String[] args) {
        String word="Engineering";
        word=word.toLowerCase();
        String vowels = "aeiou";
        String consonants = "";
        for (int i = 0; i < word.length(); i++) {
            char ch = word.charAt(i);
            if (vowels.indexOf(ch) != -1) {
                System.out.print(ch+" ");
            } else if (Character.isLetter(ch)) {
                consonants += ch + " ";
            }
        }
        System.out.println("\nConsonants: " + consonants.trim());
    }
}

```

OUTPUT:

```
Output
java -cp ./tmp/SB3D1Nt5Hw/Main
e i e e i
Consonants: n g n r n g

=== Code Execution Successful ===
```

8. Write a program that finds whether a given character is present in a string or not. In case it is present it prints the index at which it is present. Do not use built-in find functions to search the character.

Sample Input:

Enter the string: I am a programmer

Enter the character to be searched: p

Sample Output:

P is found in string at index: 8

Note: Check for non available Character in the given statement as Hidden Test case.

CODE:

```
import java.util.Scanner;
public class CharacterFinder {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        System.out.print("Enter the string: ");
        String inputString = scanner.nextLine();
        System.out.print("Enter the character to be searched: ");
        char searchChar = scanner.next().charAt(0);
        int index = findCharacter(inputString, searchChar);
        if (index != -1) {
            System.out.println(searchChar + " is found in string at index: " + index);
        } else {
            System.out.println(searchChar + " is not found in the string.");
        }
    }
    public static int findCharacter(String str, char ch) {
        char[] charArray = str.toCharArray();
        for (int i = 0; i < charArray.length; i++) {
            if (charArray[i] == ch) {
                return i;
            }
        }
        return -1;
    }
}
```

OUTPUT:

```
Output
java -cp ./tmp/jNTky0rR83/CharacterFinder
Enter the string: SRI
Enter the character to be searched: I
I is found in string at index: 2

=== Code Execution Successful ===
```

9. Write a program to arrange the letters of the word alphabetically in reverse order

Sample Input:

Enter the word: MOSQUE

Sample Output:

Alphabetical Order: U S Q O M E

CODE:

```
import java.util.Arrays;
import java.util.Scanner;
public class ReverseAlphabeticalOrder {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        System.out.print("Enter the word: ");
        String word = scanner.nextLine();
        char[] chars = word.toCharArray();
        Arrays.sort(chars);
        String sortedWord = new String(chars);
        String reverseSortedWord = new StringBuilder(sortedWord).reverse().toString();
        System.out.println("Alphabetical Order:"+reverseSortedWord );
    }
}
```

OUTPUT:

```
Output
java -cp ./tmp/ZazroyxTC8/ReverseAlphabeticalOrder
Enter the word: GOODMORNING
Alphabetical Order:ROOONNMIGGD

=== Code Execution Successful ===
```

10. Write a program that accepts a string from user and displays the same string after removing vowels from it.

Sample Input & Output:

Enter a string: we can play the game

The string without vowels is: w cn ply thgm

CODE:

```
import java.util.Scanner;

public class Main {

    public static void main(String[] args) {

        Scanner scanner = new Scanner(System.in);

        System.out.print("Enter a string: ");

        String input = scanner.nextLine();

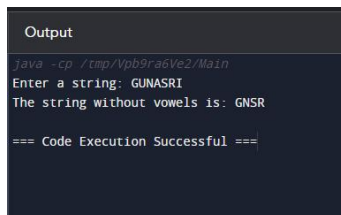
        String result = input.replaceAll("[aeiouAEIOU]", "");

        System.out.println("The string without vowels is: " + result);

    }

}
```

OUTPUT:



```
Output
java -cp /tmp/Vpb9ra6Ve2/Main
Enter a string: GUNASRI
The string without vowels is: GNSR

=== Code Execution Successful ===
```