1)Accept the strings(HARD CODE VALUES/USER ACCEPTED),as per their length and reorder it.

⇒

```
import java.util.Arrays;
import java.util.Scanner;
class Operations {
    public void sort(String[] s, int n) {
        for (int i = 1; i < n; i++) {
            String temp = s[i];

            int j = i - 1;
            while (j >= 0 && temp.length() < s[j].length()) {
                s[j + 1] = s[j];
                j--;
            }
            s[j + 1] = temp;
        }
    }

    public void printArraystring(String str[], int n) {
        for (int i = 0; i < n; i++)
            System.out.print(str[i] + " ");
    }

}

public class Q1 {
    public static void main(String[] args) {
        Operations op1 = new Operations();
        Scanner sc = new Scanner(System.in);
        int size = 3;
        String[] arr = new String[size];
        System.out.print("Enter the First String:: ");
        for (int i = 0; i < size; i++) {
            arr[i] = sc.nextLine();
            System.out.println("Enter Next name:: ");
        }
        //System.out.println(Arrays.toString(arr));
        op1.sort(arr, size);
        op1.printArraystring(arr,size);

    }
}
```

Output:

```
Enter the First String:: pra
Enter Next name::
prat
Enter Next name::
prath
Enter Next name::
pra prat prath
Process finished with exit code 0
```

2) Count the total number of vowels and consonants in a string.

⇒

```
package com.prathamesh.jan21;
import java.util.Scanner;
class Count {
    public int countVowels(String str) {
        String str1 = str.toLowerCase();
        int count = 0;
        for (int i = 0; i < str1.length(); i++) {
            if (str1.charAt(i) == 'a' || str1.charAt(i) == 'e'
                    || str1.charAt(i) == 'i'
                    || str1.charAt(i) == 'o'
                    || str1.charAt(i) == 'u') {
                count++;
            }
        }
        return count;
    }

    public int countConsonants(String str) {
        String str1 = str.toLowerCase();
        int count = 0;
        for (int i = 0; i < str1.length(); i++) {
            if (str1.charAt(i) == 'a' || str1.charAt(i) == 'e'
                    || str1.charAt(i) == 'i'
                    || str1.charAt(i) == 'o'
                    || str1.charAt(i) == 'u') {
            } else if (str1.charAt(i) >= 'a' && str1.charAt(i) <= 'z') {
                count++;
            }
        }
        return count;
```

```
    }
}

public class Q2 {
    public static void main(String[] args) {
        Count c1 = new Count();
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter a String:: ");
        String str = sc.nextLine();
        int vowel_Count = c1.countVowels(str);
        int consonants_Count = c1.countConsonants(str);
        System.out.println("Number of vowels in String:: " + vowel_Count);
        System.out.println("Number of consonants in String:: " + consonants_Count);
    }
}
```

Output:

```
Enter a String:: Prathamesh
Number of vowels in String:: 3
Number of consonants in String:: 7

Process finished with exit code 0
```

3) Remove all repeated characters from a given string.

⇒

```
package com.prathamesh.jan21;
import java.util.Arrays;
import java.util.Scanner;

class Duplicate {
    public String removeDuplicates(char str[]) {
        int n = str.length;
        int index = 0;
        int i = 0;
        int j = 0;
        for (i = 0; i < n; i++) {
            for (j = 0; j < i; j++) {
                if (str[i] == str[j]) {
                    break;
                }
            }
            if (j == i) {
                str[index++] = str[i];
            }
```

```
        }
        return String.valueOf(Arrays.copyOf(str, index));
    }
}

public class Q3 {
    public static void main(String[] args) {
        Duplicate d1 = new Duplicate();
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter your String:: ");
        String str = sc.nextLine();
        String str1 = str.toLowerCase();
        char str2[] = str1.toCharArray();
        String remove_duplicate = d1.removeDuplicates(str2);
        System.out.println("String after removal of Duplicates::" + remove_duplicate);

    }
}
```

Output:

```
Enter your String:: Praaathhamessh
String after removal of Duplicates::prathmes

Process finished with exit code 0
```

4)Remove both leading and trailing white space characters from the given string and also showcase the Unicode value of the character present at index 5.

⇒

```
package com.prathamesh.jan21;


public class Q4 {
    public static void main(String[] args) {
        String str = "    Prathmesh Chaudhari        ";
        String str1 = str.trim();
        System.out.println("String after the trim operation:: " + str1);
        System.out.println(str1.charAt(5));
        System.out.println("Unicode value of Character present at" +
                " index 5 is::" + str1.codePointAt(5));
    }
}
```

Output:

```
String after the trim operation:: Prathmesh Chaudhari
m
Unicode value of Character present at index 5 is::109

Process finished with exit code 0
```

5)Accept 5 names of string type, count the length.and as per their length assign there order (Ascending).

=>Replace above strings "vowel characters" with their next letter.

=>Ex. "Aarti" => Vowels present here are ==>a(2),i(1)

=>next character of "a" is "b" and for "i" its "j"

=>so,final string will be "bbrtj"

⇒

```
package com.prathamesh.jan21;
import java.util.Scanner;
class SortLength {
    public void sortLength(String []str) {
        for ( int i = 1 ; i < str.length ; i++ ) {
            String temp = str[i];
            int j = i - 1;
            while ( j >= 0 && temp.length() < str[j].length() ) {
                str[j + 1] = str[j] ;
                j-- ;
            }
            str[ j + 1 ] = temp ;
        }
        System.out.print("After Sorting: ");
        for ( String string : str )
            System.out.print( string + " " );
        System.out.println();
    }
}
public class Q5one {
    public static void main(String[] args) {


    SortLength obj = new SortLength();
    Scanner scn = new Scanner(System.in);
    int n = 5;
    String[] str = new String[n];
        for (int i = 0 ; i < n ; i++)
```

```
            str[i] = scn.next();
        obj.sortLength(str);
        System.out.println("After Replacement: ");

        for (String string : str) {
        string = string.toLowerCase();
        char[] c = string.toCharArray();
        for (int i = 0 ; i < c.length ; i++ ){
            switch(c[i]) {
                case 'a' :
                    c[i] = 'b';
                    break;
                case 'e' :
                    c[i] = 'f';
                            break;
                case 'i' :
                    c[i] = 'j';
                    break;
                case 'o' :
                    c[i] = 'p';
                    break;
                case 'u' :
                    c[i] = 'v';
                    break;
                default :
                    break;
            }
            System.out.print(c[i]);
        }
        System.out.print(" ");
    }
        System.out.println();
}
}
```

Output:

```
aeiou
prathamesh
rutuja
ramesh
priya
After Sorting: aeiou priya rutuja ramesh prathamesh
After Replacement:
bfjpv prjyb rvtvjb rbmfsh prbthbmfsh
```

6)Convert String data into array and present it

⇒

```
package com.prathamesh.jan21;

public class Q6 {
    public static void main(String[] args) {
            String s = "prathamesh";
            char ch[] = s.toCharArray();
            for (char c: ch) {
                System.out.println(c);
            }
    }

}
```

Output:

```
p r a t h a m e s h
Process finished with exit code 0
```