Assignment

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Topic:-Strings

Task 1:- Reverse a string without using library functions.

```
import java.util.Scanner;
public class Uppercase {
	public static void main(String[] args) {
		Scanner s=new Scanner(System.in);
		System.out.println("Enter a string: ");
		String str=s.nextLine();
		String rev="";
		for(int i=0;i<str.length();i++) {

			char ch=str.charAt(i);
			 if (ch >= 'a' && ch <= 'z') {
				char upper = (char)(ch - 32);
		 rev = rev + upper;
		}else {
			rev = rev + ch;
		}
		}
		System.out.println(rev);
	}
}
```

o/p:-

```
Enter a string:
Hello
HELLO
```

Task 2: Check if a string is a palindrome (case insensitive).

```
import java.util.Scanner;

public class Palindrome {

	public static void main(String[] args) {

		Scanner d=new Scanner (System.in);

		System.out.println("Enter a String");

		String s=d.nextLine().toLowerCase();

		String p="";

		for(int i=s.length()-1;i>=0;i--) {

			p=p+s.charAt(i);

		}

		System.out.println(s.equals(p)? s+ " is Palindrome":s+" is not a Palindrome");

	}

}
```

O/P:-

```
Enter a String
Racecar
Racecar is Palindrome
```

Task 3:- 3. Count the number of vowels and consonants in a string.

```
import java.util.Scanner;

public class Volcon {

	public static void vowelConstant(String s){

		int volc=0;

		int conc=0;

		for(int i=0;i<s.length();i++) {

			char ch=s.charAt(i);

			if(Character.isDigit(ch)) {

				continue;
```

```
                }
                else {
                        if(Character.isAlphabetic(ch)) {
                                if(ch=='a'|| ch=='e'|| ch=='i'||ch=='o'||ch=='u') {
                                        volc++;
                                }
                                else {
                                        conc++;
                                }
                        }
                }
        }
        System.out.println("Count of vowels :"+volc);
        System.out.println("Count of consonants :"+conc);
    }
    public static void main(String[] args) {
        Scanner sc=new Scanner(System.in);
        String s=sc.nextLine().toLowerCase();
        Volcon.vowelConstant(s);
    }
}
```

O/P:-

Enter a String:
String is a consonants
Count of vowels :6
Count of consonants :13

Task 4:- Anagrams

```
import java.util.Scanner;

public class Anagram {
```

```
public static void main(String[] args) {
		Scanner i=new Scanner(System.in);
		System.out.println("Enter a first String:");
		String fstr=i.nextLine().toLowerCase();
		String str=fstr.replace(" ","");
		System.out.println("Enter a Second String:");
		String se=i.nextLine().toLowerCase();
		String sestr=se.replace(" ", "");
		if(str.isEmpty() && sestr.isEmpty()) {
			System.out.println("Enter a string again with empty");

		}else {
			if(str.length()!=sestr.length()) {
				System.out.println("Not Anagram");
			}else {int[] arr=new int[128];
			for(int k=0;k<str.length();k++) {
				int pos=str.charAt(k);
				arr[pos]++;
				int pos1=sestr.charAt(k);
				arr[pos1]--;
			}
			for(int j=0;j<arr.length;j++) {
				System.out.println(arr[j]);
				if(arr[j]!=0) {
					System.out.println("Not Anagram");
					return;
				}
```

```
                        }

                        System.out.println("Anagram");

                        }

                }

        }

}
```

O/P:-

```
Enter a first String:
School Master
Enter a Second String:
The classroom
```
Anagram

Task 5:-Remove all duplicate

```
import java.util.Scanner;
public class Removeduplicate {
        public static void main(String[] args) {
                Scanner s=new Scanner(System.in);
                System.out.println("Enter a  String:");
                String str=s.nextLine();
                String r=""+str.charAt(0);
                for(int i=1;i<str.length();i++) {
                        if(str.charAt(i)==str.charAt(i-1)) {
                                continue;
                        }
                        else {
                                r+=str.charAt(i);
                        }

        }
                System.out.println(r);
        }
}
```

O/P:-

```
Enter a  String:
aabbcddd
abcd
```