

# IS2104 - Rapid Application Development

## 2020 Practical – 4

### Question A

```
public class WordCount
{
    public static void main(String[] args)
    {
        String text = "UCSC offers Computer Science and Software Engineering education under the Bachelor of Computer Science and Information Systems under Bachelor of Information Sy
        String text1=text.replaceAll(",","");
        String[] keys = text1.split(" ");
        String[] uniqueKeys;
        int count = 0;
        System.out.println(text1);
        uniqueKeys = getUniqueKeys(keys);
        for(String key: uniqueKeys)
        {
            if(null == key)
            {
                break;
            }
            for(String s : keys)
            {
                if(key.equals(s))
                {
                    count++;
                }
            }
            System.out.println("Count of [" +key+"] is : "+count);
            count=0;
        }
    }

    private static String[] getUniqueKeys(String[] keys)
    {
        String[] uniqueKeys = new String[keys.length];
        uniqueKeys[0] = keys[0];
        int uniqueKeyIndex = 1;
        boolean keyAlreadyExists = false;
        for(int i=1; i<keys.length ; i++)
        {
            for(int j=0; j<=uniqueKeyIndex; j++)
            {
                if(keys[i].equals(uniqueKeys[j])){
                    keyAlreadyExists = true;
                }
            }
            if(!keyAlreadyExists)
            {
                uniqueKeys[uniqueKeyIndex] = keys[i];
                uniqueKeyIndex++;
            }
            keyAlreadyExists = false;
        }
        return uniqueKeys;
    }
}
```

Microsoft Windows [Version 10.0.17134.1069]

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C:\Users\Hansika>cd Desktop

C:\Users\Hansika\Desktop>javac WordCount.java

C:\Users\Hansika\Desktop>java WordCount

UCSC offers Computer Science and Software Engineering education under the Bachelor of Computer Science and Information Systems under Bachelor of Information Systems intakes through the University Grants Commission as internal students such as Bachelor of Science in Computer Science Bachelor of Science in Information Systems Bachelor of Science Honours in Computer Science Bachelor of Science Honours in Software Engineering Bachelor of Science Honours in Information Systems

Count of [UCSC] is : 1

Count of [offers] is : 1

Count of [Computer] is : 4

Count of [Science] is : 9

Count of [and] is : 2

Count of [Software] is : 2

Count of [Engineering] is : 2

Count of [education] is : 1

Count of [under] is : 2

Count of [the] is : 2

Count of [Bachelor] is : 7

Count of [of] is : 7

Count of [Information] is : 4

Count of [Systems] is : 4

Count of [intakes] is : 1

Count of [through] is : 1

Count of [University] is : 1

Count of [Grants] is : 1

Count of [Commission] is : 1

Count of [as] is : 2

Count of [internal] is : 1

Count of [students] is : 1

Count of [such] is : 1

Count of [in] is : 5

Count of [Honours] is : 3

C:\Users\Hansika\Desktop>

## Question B

```
import java.util.Scanner;

public class StringReverse
{
    public static void main(String[] args)
    {
        Scanner scan=new Scanner(System.in);
        System.out.println("Enter string to reverse:");

        String str = scan.nextLine();
        int length=str.length();
        char[] charactors=new char[length];

        for(int i = 0;i<length;i++)
        {
            charactors[i]=str.charAt(i);
        }
        while (length>0) {
            System.out.print(charactors[length-1]);
            length--;
        }
    }
}
```

```
Command Prompt
Microsoft Windows [Version 10.0.17134.1069]
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C:\Users\Hansika>cd Desktop

C:\Users\Hansika\Desktop>javac StringReverse.java

C:\Users\Hansika\Desktop>java StringReverse
Enter string to reverse:
The allegory of the cave, or Plato's Cave, was presented by the Greek philosopher Plato in his
work Republic to compare "the effect of education and the lack of it on our nature". It is
written as a dialogue between Plato's brother Glaucon and his mentor Socrates, narrated by the
sih ni otalP rehposolihp keerG eht yb detneserp saw ,evaC s'otalP ro ,evac eht fo yrogella ehT
C:\Users\Hansika\Desktop>latter
```

### Question C

```
public class SumOfMatrices{

    public static void main(String[] args){

        int firstMatrix[][]={{1,2,3},{4,5,6},{7,8,9}};
        int secondMatrix[][]={{2,3,4},{5,6,7},{8,9,1}};
        int totalMatrix[][]=new int[3][3];
        int i;
        int j;
        for(i=0;i<3;i++){

            for(j=0;j<3;j++){

                totalMatrix[i][j]=firstMatrix[i][j] +secondMatrix[i][j];

            }

        }
        System.out.println("Sum of two matrices:");
        for(i=0;i<3;i++){

            for(j=0;j<3;j++){

                System.out.print(totalMatrix[i][j]+"");

            }

            System.out.println();

        }

    }

}
```

CA Command Prompt

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C:\Users\Hansika>cd Desktop

C:\Users\Hansika\Desktop>javac SumOfMatrices.java

C:\Users\Hansika\Desktop>java SumOfMatrices

Sum of two matrices:

357

91113

151710

C:\Users\Hansika\Desktop>