CSA0976 Java Programming

Name: K. Bala Sri Saran

Reg no: 192124088

Assignment 2

1.Code:

i. Code:

```
import java.io.*;
import java.util.*;
class stringoperation1
{
	public static void main(String arg[])
	{
		String s1,s2;
		Scanner s=new Scanner(System.in);
		System.out.print("Enter String 1 :");
		s1=s.nextLine();
		System.out.print("Enter String 2 :");
		s2=s.nextLine();
		int result=s1.compareToIgnoreCase(s2);
		if(result==0)
		{
			System.out.print("Both Strings are Equal by ignoring case difference");
		}
		else
		{
			System.out.print("Both Strings are  not Equal by ignoring case difference");
```

```
            }
        }
}
```

Output:

```
C:\Users\saran\OneDrive\Desktop\Java>java stringoperation1
Enter String 1 :The quick brown fox
Enter String 2 :The lazy dog
Both Strings are  not Equal by ignoring case difference
```

ii. Code:

```
import java.io.*;
import java.util.*;
class stringoperation2
{
    public static void main(String arg[])
    {
            String str1 = "The Quick Brown Fox Jumps Over The Lazy Dog";
      String str2 = "The Quick Brown Fox Jumps Over The Lazy Dogs";
      String end_str = "gs";
      boolean ends1 = str1.endsWith(end_str);
      boolean ends2 = str2.endsWith(end_str);
      System.out.println("\"" + str1 + "\" ends with " +"\"" + end_str + "\"= " + ends1);
      System.out.println("\"" + str2 + "\" ends with " +"\"" + end_str + "\"= " + ends2);
    }
}
```

Output:

```
C:\Users\saran\OneDrive\Desktop\Java>javac stringoperation2.java

C:\Users\saran\OneDrive\Desktop\Java>java stringoperation2
"The Quick Brown Fox Jumps Over The Lazy Dog" ends with "gs"= false
"The Quick Brown Fox Jumps Over The Lazy Dogs" ends with "gs"= true
```

iii. Code:

```
import java.io.*;
import java.util.*;
class stringoperation3
{
	public static void main(String arg[])
	{
		Calendar c = Calendar.getInstance();
	System.out.println("Current Date and Time :");
	System.out.format("%tB %te, %tY%n", c, c, c);
	System.out.format("%tl:%tM %tp%n", c, c, c);
	}
}
```

Output:

```
C:\Users\saran\OneDrive\Desktop\Java>javac stringoperation3.java

C:\Users\saran\OneDrive\Desktop\Java>java stringoperation3
Current Date and Time :
March 21, 2023
11:22 pm
```

iv. Code:

```
import java.io.*;
import java.util.*;
class stringoperation4
{
	public static void main(String arg[])
	{
```

```
String str = "The quick brown fox jumps over the lazy dog.";
int a = str.indexOf("a", 0);
int b = str.indexOf("b", 0);
int c = str.indexOf("c", 0);
int d = str.indexOf("d", 0);
int e = str.indexOf("e", 0);
int f = str.indexOf("f", 0);
int g = str.indexOf("g", 0);
int h = str.indexOf("h", 0);
int i = str.indexOf("i", 0);
int j = str.indexOf("j", 0);
int k = str.indexOf("k", 0);
int l = str.indexOf("l", 0);
int m = str.indexOf("m", 0);
int n = str.indexOf("n", 0);
int o = str.indexOf("o", 0);
int p = str.indexOf("p", 0);
int q = str.indexOf("q", 0);
int r = str.indexOf("r", 0);
int s = str.indexOf("s", 0);
int t = str.indexOf("t", 0);
int u = str.indexOf("u", 0);
int v = str.indexOf("v", 0);
int w = str.indexOf("w", 0);
int x = str.indexOf("x", 0);
int y = str.indexOf("y", 0);
int z = str.indexOf("z", 0);
System.out.println(" a  b c  d e  f  g h i  j");
System.out.println("========================");
```

```
        System.out.println(a + " " + b + " " + c + " " + d + " " +
                           e + " " + f + " " + g + " " + h + " " +
                           i + " " + j + "\n");
        System.out.println("k  l  m  n  o  p q  r  s  t");
        System.out.println("==========================");
        System.out.println(k + " " + l + " " + m + " " + n + " " +
                           o + " " + p + " " + q + " " + r + " " +
                           s + " " + t + "\n");
        System.out.println("u  v  w  x  y  z");
        System.out.println("================");
        System.out.println(u + " " + v + " " + w + " " + x + " " +
                           y + " " + z);
        }
}
```

Output:

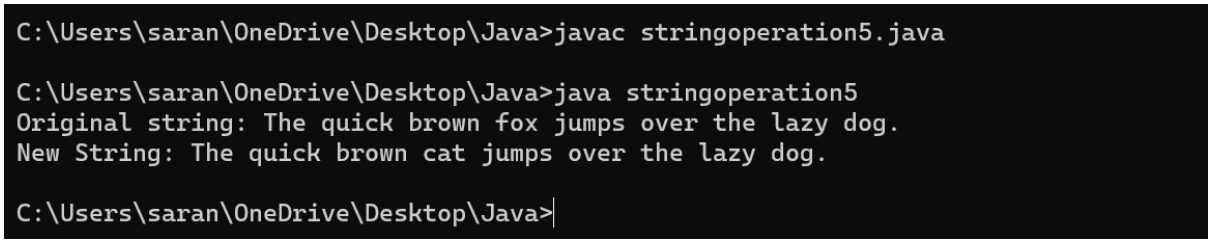
```
C:\Users\saran\OneDrive\Desktop\Java>javac stringoperation4.java

C:\Users\saran\OneDrive\Desktop\Java>java stringoperation4
 a  b c  d e  f  g h i  j
========================
36 10 7 40 2 16 42 1 6 20

k  l  m  n  o  p q  r  s  t
==========================
8 35 22 14 12 23 4 11 24 31

u  v  w  x  y  z
================
5 27 13 18 38 37

C:\Users\saran\OneDrive\Desktop\Java>
```

v. Code:

```
import java.io.*;
import java.util.*;
class stringoperation5
{
```

```
    public static void main(String arg[])
    {
        String str = "The quick brown fox jumps over the lazy dog.";
    String new_str = str.replaceAll("fox", "cat");
    System.out.println("Original string: " + str);
    System.out.println("New String: " + new_str);
    }
}
```

Output:



vi. Code:

```
import java.io.*;
import java.util.*;
class stringoperation6
{
    public static void main(String arg[])
    {
        String str = "The quick brown fox jumps over the lazy dog.";
String new_str = str.substring(10, 26);
    System.out.println("old = " + str);
    System.out.println("new = " + new_str);
    }
}
```

Output:

```
C:\Users\saran\OneDrive\Desktop\Java>javac stringoperation6.java

C:\Users\saran\OneDrive\Desktop\Java>java stringoperation6
old = The quick brown fox jumps over the lazy dog.
new = brown fox jumps

C:\Users\saran\OneDrive\Desktop\Java>
```

vii. Code:

```
import java.io.*;
import java.util.*;
class stringoperation7
{
	public static void main(String arg[])
	{
		String str = " The quick brown fox jumps over the lazy dog.  ";
	String new_str = str.trim();
		System.out.println("Original String: " + str);
		System.out.println("New String: " + new_str);
	}
}
```

Output:

```
C:\Users\saran\OneDrive\Desktop\Java>javac stringoperation7.java

C:\Users\saran\OneDrive\Desktop\Java>java stringoperation7
Original String:  The quick brown fox jumps over the lazy dog.
New String: The quick brown fox jumps over the lazy dog.

C:\Users\saran\OneDrive\Desktop\Java>
```

viii. Code:

```
import java.io.*;
import java.util.*;
class stringoperation8
{
	public static void main(String arg[])
```

```
    {
        String str = “The quick brown fox jumps over the lazy dog”;
        String lowerStr = str.toLowerCase();
        System.out.println("Original String: " + str);
        System.out.println("String in lowercase: " + lowerStr);
    }
}
```

Output:

```
C:\Users\saran\OneDrive\Desktop\Java>javac stringoperation8.java

C:\Users\saran\OneDrive\Desktop\Java>java stringoperation8
Original String: The Quick Brown Fox Jumps Over The Lazy Dog
String in lowercase: the quick brown fox jumps over the lazy dog

C:\Users\saran\OneDrive\Desktop\Java>
```

ix. Code:

```
import java.io.*;
import java.util.*;
class stringoperation9
{
    public static void main(String arg[])
    {
        String str = "The quick brown fox jumps over the lazy dog";
        int len = str.length();
        System.out.println("The string length of '"+str+"' is: "+len);
    }
}
```

Output:

```
C:\Users\saran\OneDrive\Desktop\Java>javac stringoperation9.java

C:\Users\saran\OneDrive\Desktop\Java>java stringoperation9
The string length of 'The quick brown fox jumps over the lazy dog' is: 43

C:\Users\saran\OneDrive\Desktop\Java>
```

x. Code:

```
import java.io.*;
import java.util.*;
class stringoperation10
{
	public static void main(String arg[])
	{
		String columnist1 = "The quick brown fox jumps over the lazy dog";
	String columnist2 = "The quick brown fox jumps over the lazy dog";
	boolean equals1 = columnist1.equals(columnist2);
	System.out.println("\"" + columnist1 + "\" equals \"" +columnist2 + "\"=" + equals1);
	}
}
```

Output:

```
C:\Users\saran\OneDrive\Desktop\Java>javac stringoperation10.java

C:\Users\saran\OneDrive\Desktop\Java>java stringoperation10
"The quick brown fox jumps over the lazy dog" equals "The quick brown fox jumps over the lazy dog"=true

C:\Users\saran\OneDrive\Desktop\Java>
```

2.Code:

```
import java.io.*;
import java.util.*;
class Account
{
	static double balance=0;
	public static void main(String arg[])
	{
		Scanner s=new Scanner(System.in);
```

```
        while(true)
        {
                System.out.print("Press 1 to continue...");
                int y=s.nextInt();
                if(y==1)
                {
                        choice();
                }
                else
                {
                        break;
                }
        }
}
public static void Account()
{
System.out.println(balance);
}
public static void deposit(double amount)
{
balance += amount;
        System.out.println("Amount is deposited");
}
public static void withdraw(double amount)
{
if (balance >= amount)
        {
        balance -= amount;
                System.out.println(amount+" is withdrawed");
```

```
}
        else
        {
        System.out.println("Insufficient funds");
}
}
public static void choice()
{
        System.out.println("1.Check Balance");
        System.out.println("2.Deposit");
        System.out.println("3.Withdraw");
        System.out.print("Enter your choice");
        Scanner s1=new Scanner(System.in);
        int i=s1.nextInt();
        if(i==1)
        {
                Account();
        }
        else if(i==2)
        {
                System.out.print("Enter amount to be deposit :");
                int amount=s1.nextInt();
                deposit(amount);
        }
        else if(i==3)
        {
                System.out.print("Enter amount to be withdraw :");
                int amount=s1.nextInt();
                withdraw(amount);
```

```
            }
            else
            {
                System.out.print("Invalid Choice ");
            }
        }
}
```

Output:

```
C:\Users\saran\OneDrive\Desktop\Java>javac account.java

C:\Users\saran\OneDrive\Desktop\Java>java Account
Press 1 to continue...1
1.Check Balance
2.Deposit
3.Withdraw
Enter your choice2
Enter amount to be deposit :500
Amount is deposited
Press 1 to continue...1
1.Check Balance
2.Deposit
3.Withdraw
Enter your choice1
500.0
Press 1 to continue...1
1.Check Balance
2.Deposit
3.Withdraw
Enter your choice3
Enter amount to be withdraw :300
300.0 is withdrawed
Press 1 to continue...1
1.Check Balance
2.Deposit
3.Withdraw
Enter your choice1
200.0
Press 1 to continue...
```

3.Code:

```
import java.io.*;
import java.util.*;
class NeedleHaystack
{
    public static void main(String[] args)
    {
```

```
        String needle;
        String haystack;
                Scanner c=new Scanner(System.in);
                System.out.print("Haystack :");
                haystack=c.nextLine();
                System.out.print("needle :");
                needle=c.nextLine();
        int index = haystack.indexOf(needle);
        if (index == -1)
                {
                System.out.println(needle+" not found in "+haystack);
        }
                else
                {
                System.out.println(needle+" found at index " + index);
        }
        }
}
```

Output:

```
C:\Users\saran\OneDrive\Desktop\Java\Assignment\Day-2 Assignment>javac NeedleHaystack.java

C:\Users\saran\OneDrive\Desktop\Java\Assignment\Day-2 Assignment>java NeedleHaystack
Haystack :sadbut
needle :sad
sad found at index 0

C:\Users\saran\OneDrive\Desktop\Java\Assignment\Day-2 Assignment>java NeedleHaystack
Haystack :leetcode
needle :leeto
leeto not found in leetcode

C:\Users\saran\OneDrive\Desktop\Java\Assignment\Day-2 Assignment>
```

4.Code:

```
import java.io.*;
import java.util.*;
class lastword
```

```
{
	public static void main(String arg[])
	{
		String s;
		Scanner c=new Scanner(System.in);
		System.out.print("Enter a String :");
		s=c.nextLine();
		System.out.print("Length of last word :"+lengthOfLastWord(s));

	}
	public static int lengthOfLastWord(String s)
	{
	int count = 0;
	s = s.trim();
	int start = s.length() - 1;
	for(int i=start; i >= 0; i--)
		{
		if(s.charAt(i) == ' ')
			{
			break;
		}
		count++;
	}
	return count;
	}
}
```

Output:

```
C:\Users\saran\OneDrive\Desktop\Java\Assignment\Day-2 Assignment>javac lastword.java

C:\Users\saran\OneDrive\Desktop\Java\Assignment\Day-2 Assignment>java lastword
Enter a String :good morning
Length of last word :7
C:\Users\saran\OneDrive\Desktop\Java\Assignment\Day-2 Assignment>
```

5.Code:

```
import java.io.*;
import java.util.*;
class factor
{
	public static void main(String args[])
	{
	try
		{
		Scanner sc=new Scanner(System.in);
		int count=0,n,i,j=0,m=4;
		int []a=new int [10];
		System.out.print("Enter the number:");
		n=sc.nextInt();
			if(n<=0)
		{
			System.out.println("Enter valid number");
		}
		else
			{
			for(i=1;i<=n;i++)
			{
				if(n%i==0)
				{
```

```
                    a[j] = i;
                        System.out.println("..." + i);
                    count++;
                        j++;
                }
            }
            System.out.println("The number of factors:"+count);
        }
        System.out.println(m + "th item " + a[m-1]);
    }
    catch(Exception e)
        {
        System.out.println("Enter only numbers");
    }
    }
}
```

Output:

```
C:\Users\saran\OneDrive\Desktop\Java>javac factor.java

C:\Users\saran\OneDrive\Desktop\Java>java factor
Enter the number:6
...1
...2
...3
...6
The number of factors:4
4th item 6

C:\Users\saran\OneDrive\Desktop\Java>
```