CSA0976 Java Programming

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Assignment 2

1.Code:

i. Code:

```java
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:

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:

iii. Code:

```java
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:

iv. Code:

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

```java
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("========================");
```

```java
        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  bc  de  f  ghi  j
========================
36 10 7 40 2 16 42 1 6 20

k  l  m  n  o  pq  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:

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

```java
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:

```
C:\Users\saran\OneDrive\Desktop\Java>javac stringoperation5.java

C:\Users\saran\OneDrive\Desktop\Java>java stringoperation5
Original string: The quick brown fox jumps over the lazy dog.
New String: The quick brown cat jumps over the lazy dog.

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

vi. Code:

```java
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:

```java
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:

```java
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:

```java
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);
```

```java
        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");
```

```java
        }
        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

```java
{
    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:

```java
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)

                                {
```

```java
                        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>
```