CSA0976 Java Programming

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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:

```
Enter String 1 :Enter String 2 :java program
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:

```
"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:

```
Current Date and Time :March 22, 2023
5:10 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:

```
java -cp /tmp/VHiFCgDEdY 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
```

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:

```
java -cp /tmp/VHiFCgDEdY stringoperation5

Original string: The quick brown fox jumps over the lazy dog.New String
    : The quick brown cat jumps over the lazy dog.
```

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:

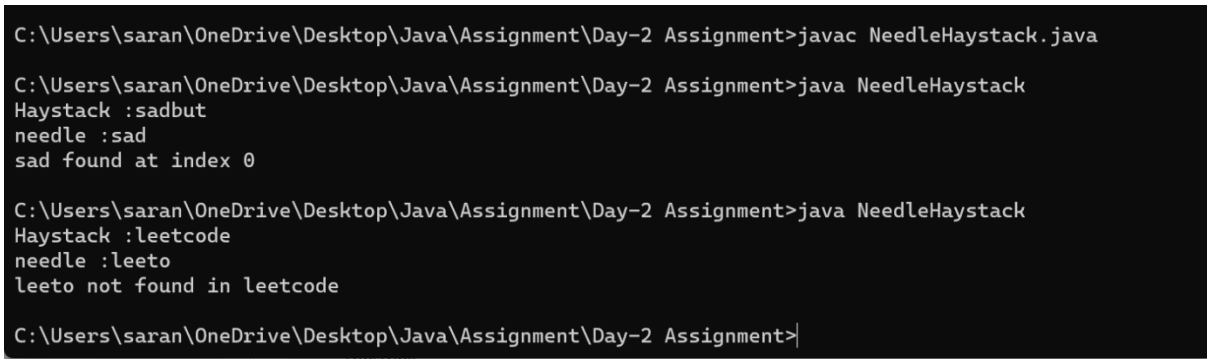
```
C:\Users\saran\OneDrive\Desktop\Java>javac account.java

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:



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>
```