

## **Section 1: Define / Answer**

Static variables- static variable is a variable that has been allocated statically—whose lifetime or "extent" extends across the entire run of the program.

Static methods- Java static method program: static methods in Java can be called without creating an object of class.

SubString- This method has two variants and returns a new string that is a substring of this string. The substring begins with the character at the specified index and extends to the end of this string or up to endIndex - 1 if second argument is given.

Task 1-

**USE OBJECT ORIENTATED PROGRAM DESIGN TO SOLVE PROBLEM**

**\$4.25 2 Shoes**

**\$1.25 5 Socks**

Your program will take a text file containing 12 retail transactions and sum the total price of all items.

Separate operation of the program into “programmer created” classes.

**main** should simply operate the program.

1 Programmer class will read the data from a text file.

1 Programmer class will do the calculations

**Output**

**The total # of items purchased.**

**The total cost of all the items.**

Attach Snipping Photos of Source Code and Output, Original Text File, New Text File

```

1  /*
2  * To change this license header, choose License Headers in Project Properties.
3  * To change this template file, choose Tools | Templates
4  * and open the template in the editor.
5  */
6  package javaapplication1;
7
8  import java.io.File;
9  import java.util.Scanner;
10
11
12  class Items{
13      String price;
14      String quality;
15      String type;
16      Items[] ary = new Items[12];
17      java.io.File file = new java.io.File("StudentInfo.txt");
18
19      Items(String price, String quality, String type){
20          this.price = price;
21          this.quality = quality;
22          this.type = type;
23      }
24
25      Items(Items[] ary){
26          this.ary = ary;
27      }
28
29      void print() throws Exception{
30          file = new java.io.File("C:\\Users\\student\\Documents\\NetBeansProjects\\JavaApplication1\\StudentInfo.txt");
31          java.io.PrintWriter output = new java.io.PrintWriter(file);
32
33          for(int i = 0; i < ary.length; i++){
34              output.println("$" + ary[i].price + " " + ary[i].quality + " " + ary[i].type);
35          }
36          output.close();
37      }
38  }
39
40  class Access{
41      void read() throws Exception{
42          java.io.File file = new java.io.File("C:\\Users\\student\\Documents\\NetBeansProjects\\JavaApplication1\\StudentInfo.txt");
43          String str;
44          Scanner input = new Scanner(file);
45
46          while(input.hasNext()){
47              str = input.nextLine();
48              System.out.println(str);
49          }
50      }
51  }
52
53  class Math{
54      void calculation() throws Exception{
55          java.io.File file = new java.io.File("C:\\Users\\student\\Documents\\NetBeansProjects\\JavaApplication1\\StudentInfo.txt");
56          String str;
57          String temp1, temp2;
58          double sample = 0;
59          double total = 0;
60          int count = 0;

```

```

double q = 0;
Scanner input = new Scanner(file);

while(input.hasNext()){
    str = input.nextLine();
    temp1 = str.substring(1, 5);
    sample = Double.parseDouble(temp1);

    temp2 = str.substring(6, 7);
    q = Double.parseDouble(temp2);

    total += (sample * q);
    count++;
}

System.out.println("The total# of items purchased: " + count);
System.out.println("The total cost of all the items: $" + total );
}
}

```

```

public class JavaApplication9 {
    public static void main(String[] args) throws Exception {
        Items[] ary = new Items[12]; //Info1 ary
        ary[0] = new Items("4.25", "2", "Socks");
        ary[1] = new Items("3.25", "2", "Shoes");
        ary[2] = new Items("1.25", "3", "Cards");
        ary[3] = new Items("6.25", "1", "NoteBook");
        ary[4] = new Items("7.25", "1", "Folder");
        ary[5] = new Items("8.25", "1", "LightBult");

        ary[6] = new Items("1.25", "5", "Pens");
        ary[7] = new Items("2.25", "2", "Cokes");
        ary[8] = new Items("2.50", "2", "Chips");
        ary[9] = new Items("7.00", "1", "Sandwich");
        ary[10] = new Items("7.00", "1", "Ham");
        ary[11] = new Items("9.00", "1", "Chicken");

        Items var1 = new Items(ary); //Info1 object

        var1.print(); //store into String ary

        Access var2 = new Access(); //default intinizte
        var2.read();

        Math var3 = new Math();
        var3.calculation();
    }
}

```

```
run:
$4.25 2 Socks
$3.25 2 Shoes
$1.25 3 Cards
$6.25 1 NoteBook
$7.25 1 Folder
$8.25 1 LightBult
$1.25 5 Pens
$2.25 2 Cokes
$2.50 2 Chips
$7.00 1 Sandwich
$7.00 1 Ham
$9.00 1 Chicken
The total# of items purchased: 12
The total cost of all the items: $79.25
BUILD SUCCESSFUL (total time: 5 seconds)
```

StudentInfo.txt - Notepad

File Edit Format View Help

```
$4.25 2 Socks
$3.25 2 Shoes
$1.25 3 Cards
$6.25 1 NoteBook
$7.25 1 Folder
$8.25 1 LightBult
$1.25 5 Pens
$2.25 2 Cokes
$2.50 2 Chips
$7.00 1 Sandwich
$7.00 1 Ham
$9.00 1 Chicken
```

CIS 36B – 7<sup>th</sup> Class / Lab Assignment – **10 Points-**

**Student Name** Kachilau      **Student ID** 10819338      **Point Total**

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