

Name: Martin McKinney

Registration No: B00123456

Lab Session / Task Number: Week 3

Date: 01/10/18

Class Name and Description:

Tax1

A Program to read in a person's gross pay

It will then calculate their tax liability and output their gross pay, tax and net pay

Program Design

Data Requirements

Prompt for Gross Pay

Read Gross Pay from keyboard

double grossPay

IF (grossPay > TAXLEVEL)

 Calculate tax = (grossPay – TAXLEVEL) * TAXRATE

final int TAXLEVEL = 10000

double tax = 0

final double TAXRATE = 0.20

Calculate netPay = grossPay – tax

double netPay

Output "Gross Pay: " + grossPay to 2 d.p.

Output "Tax Pay: " + tax to 2 d.p.

Output "Net Pay: " + netPay to 2 d.p.

Tax1.java

```
1  import java.text.DecimalFormat;
2  import java.util.Scanner;
3
4  /**
5   * Created by: Martin
6   * Created on: 01/10/18
7   * Program to read in a person's gross pay then calculate their tax
8   *   then output their gross pay, tax and net pay
9   */
10
11 public class Tax1 {
12
13     public static void main(String[] args) {
14
15         Scanner keyboard = new Scanner (System.in);
16         DecimalFormat df = new DecimalFormat("00.00");
17
18         final int TAXLEVEL = 10000;
19         final double TAXRATE = 0.20;
20         double grossPay, tax = 0, netPay;
21
22         // Prompt for and read in the gross pay
23         System.out.print("Pleas enter your Gross Pay: £");
24         grossPay = keyboard.nextDouble();
25
26         // Calculate tax and net pay
27         if (grossPay > TAXLEVEL){
28             tax = (grossPay - TAXLEVEL) * TAXRATE;
29         }//if
30         netPay = grossPay - tax;
31
32         // Output gross pay, tax and net pay
33         System.out.println("Gross Pay:\t\t£" + df.format(grossPay));
34         System.out.println("Tax:\t\t\t£" + df.format(tax));
35         System.out.println("Net Pay:\t\t£" + df.format(netPay));
36
37     }//main
38 }//class
```

Program Preparation Sheet – Tax3.java

Name: Martin McKinney

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Class Name and Description:

Tax3

A Program to read in a person's gross pay

It will then calculate their tax liability and output their gross pay, tax and net pay

Program Design

Data Requirements

Prompt for Gross Pay

Read Gross Pay from keyboard

double grossPay

IF (grossPay > HIGHTAXLEVEL)

final int HIGHTAXLEVEL = 40000

 Calculate tax =

 ((grossPay – HIGHTAXLEVEL) * HIGHTAXRATE) +

double tax = 0

 ((HIGHTAXLEVEL – LOWTAXLEVEL) * LOWTAXRATE)

final double HIGHTAXRATE = 0.40

final double LOWTAXLEVEL = 10000

final double LOWTAXRATE = 0.20

ELSE

 IF (grossPay > LOWTAXLEVEL)

 Calculate tax = (grossPay – LOWTAXLEVEL) * LOWTAXRATE

Calculate netPay = grossPay – tax

double netPay

Output "Gross Pay: £ " + grossPay to 2 d.p.

Output "Tax Pay: £" + tax to 2 d.p.

Output "Net Pay: £" + netPay to 2 d.p.

Tax3.java

```
1  import java.text.DecimalFormat;
2  import java.util.Scanner;
3
4  /**
5   * Created by: Martin
6   * Created on: 01/10/18
7   * Program to read in a person's gross pay then calculate their tax
8   *   then output their gross pay, tax and net pay
9   */
10
11 public class Tax3 {
12
13     public static void main(String[] args) {
14
15         Scanner keyboard = new Scanner (System.in);
16         DecimalFormat df = new DecimalFormat("00.00");
17
18         final int LOWTAXLEVEL = 10000, HIGHTAXLEVEL = 40000;
19         final double LOWTAXRATE = 0.20, HIGHTAXRATE = 0.40;
20         double grossPay, tax = 0, netPay;
21
22         // Prompt for and read in the gross pay
23         System.out.print("Pleas enter your Gross Pay: £");
24         grossPay = keyboard.nextDouble();
25
26         // Calculate tax and net pay
27         if (grossPay > HIGHTAXLEVEL){
28             tax = ((grossPay - HIGHTAXLEVEL) * HIGHTAXRATE) +
29                 ((HIGHTAXLEVEL - LOWTAXLEVEL) * LOWTAXRATE);
30         }//if
31         else {
32             if (grossPay > LOWTAXLEVEL){
33                 tax = (grossPay - LOWTAXLEVEL) * LOWTAXRATE;
34             }//if
35         }//else
36         netPay = grossPay - tax;
37
38         // Output gross pay, tax and net pay
39         System.out.println("\nGross Pay:\t\t£" + df.format(grossPay));
40         System.out.println("Tax:\t\t\t£" + df.format(tax));
41         System.out.println("Net Pay:\t\t£" + df.format(netPay));
42
43     }//main
44 }//class
45
```