M3-UF2-P17-(final)

```
/*
@author armandosanpon
*/
package p17.function;

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*/
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import java.text.DecimalFormat;
import java.util.Scanner;

public class P17Function {

   static Scanner keyboard = new Scanner(System.in);
   static DecimalFormat df = new DecimalFormat("0.000");
   public static void main(String[] args) throws InterruptedException {
      System.out.println("Author: Armando Sanchez");
      System.out.println();
      keyboard.useDelimiter("\n");
      int option = -1;
      int euro, result4, result5;
      String euro1, result3, name, result9, result8;
      float euro2, result;
      double result2;
      char letra;

       while (option != 0) {

        userMenu();
        option = keyboard.nextInt();
        switch (option) {//start of switch
          case 1:
            System.out.println("How many euro? ");
            euro = keyboard.nextInt();
            result = Function1(euro);
            System.out.println(euro + " € " + " = " + df.format(result) + " $");
            break;
```

```
            case 2:
                System.out.println("How many euro? ");
                euro = keyboard.nextInt();
                result2 = Function2(euro);
                System.out.println(euro + " € " + " = " + df.format(result2) + " $");
                break;
            case 3:
                System.out.println("How many euro? ");
                euro = keyboard.nextInt();
                result3 = Function3(euro);
                System.out.println(euro + " € " + " = " + df.format(result3) + " $");
                break;
            case 4:
                System.out.println("How many euro? ");
                euro1 = keyboard.next();
                result4 = Function4(euro1);
                System.out.println(euro1 + " € " + " = " + result4 + " $");
                break;
            case 5:
                System.out.println("How many euro? ");
                euro2 = keyboard.nextInt();
                result5 = Function5(euro2);
                System.out.println(df.format(euro2) + " € " + " = " + result5 + " $");
                break;

             do{
                System.out.println("Tell me a number betweeen 0 and 255: ");
                number = keyboard.nextInt();
             }while (number > 255 || number < 0);

                result9 = Function9(number);
                System.out.println(result9);
                break;
            case 10:
                Function10();
                break;
            case 0:
                P0();
                System.out.println("Cya");
                break;
            default:
                System.out.println("'No valid Option'");
        }//end of switch
```

```
            case 6:
                System.out.println("How many euro? ");
                euro2 = keyboard.nextFloat();
                Function6(euro2);
                break;
            case 7:
                System.out.print("Tell me a letter: ");
                letra = (keyboard.next()).charAt(0);
                Function7(letra);
                break;
            case 8:

                System.out.println("Tell me ur name: ");
                name = keyboard.next();
                result8 = Function8(name);
                System.out.println(result8);
                break;
            case 9:
                int number;

            System.out.println("***Press any key to continue***");
        String key = keyboard.next();
    }
  }
$");
```

MONLAU centre d'estudis	**M3 - Programación**	
	UF1: Programación estructurada	**RA1:** *Programación estructurada*
Sanchez Ponseti, Armando		
Práctica Nº: 17	***P17***	

1- (int-Float) Function: Request an amount in euro (int) and return in currency X (float) and visualize: € 000 = 000,000x

```
            case 1:
                System.out.println("How many euro? ");
                euro = keyboard.nextInt();
                float result = Function1(euro);
                System.out.println(euro + " € " + " = " + df.format(result) +
" $");
                break;

private static float Function1(int euro) {

    float result = 0;
    result = euro / 0.91f; //cast
    return result;

  }
```

```
Choose an option
1
How many euro?
23
23 €  = 25,27 $
```

2- (int-double) Function: Request an amount in euro (int) and return in

X (double) currency and displays: € 000 = 000,000x

```
case 2:
                System.out.println("How many euro? ");
                euro = keyboard.nextInt();
                double result2 = Function2(euro);
                System.out.println(euro + " € " + " = " + df.format(result2)
+ " $");

private static double Function2(int euro) {

    double result2 = 0;
    result2 = euro / (double) 0.91;

    return result2;

  }
```

```
Choose an option
2
How many euro?
53
53 €  = 58,24 $
```

3- (int-String) Function: Request an amount in euro (int) and return a string with the following format: "€ 000 = 000,000x"

```
case 3:
            System.out.println("How many euro? ");
            euro = keyboard.nextInt();
            Function3(euro);
            break;

private static String Function3(int euro) {

    String result3 = Integer.toString(euro);
    System.out.println(euro + " € " + " = " + result3 + " $");

    return result3;

 }
```

```
Choose an option
3
How many euro?
65
65 €  = 65 $
```

4- (String-int) Function: Request an amount in euro (string) and return in X currency and displays: € 000.0 = 000x

```
        case 4:
           System.out.println("How many euro? ");
           euro1 = keyboard.next();
           int result4 = Function4(euro1);
           System.out.println(euro1 + " € " + " = " + result4 + " $");

private static int Function4(String euro1) {

    int result4;
    result4 = Integer.parseInt(euro1);
    return result4;

 }
```

```
Choose an option
4
How many euro?
65
65 €  = 65 $
```

5- (float-int) Function: Request an amount in euro and return in currency X and visualize: € 000.00 = 000x [use cast]

```
            case 5:
               System.out.println("How many euro? ");
               euro2 = keyboard.nextInt();
               int result5 = Function5(euro2);
               System.out.println(df.format(euro2) + " € " + " = " + result5
+ " $");

               break;


private static int Function5(float euro2) {

     int result5 = 0;
     result5 = (int) (euro2 / 0.91);//cast
     return result5;
  }
```

```
Choose an option
5
How many euro?
23
23,00 €  = 25 $
```

6- (float-String) Function: Ask for an amount in euro and return a Sting with The following format: "€ 000.0 = 000.0x"

```
            case 6:
               System.out.println("How many euro? ");
               euro2 = keyboard.nextFloat();
               Function6(euro2);
               break;
 private static String Function6(float euro2) {

     String result6 = Float.toString(euro2);
     System.out.println(euro2 + " € " + " = " + result6 + " $");

     return result6;

  }
```

```
Choose an option
6
How many euro?
12
12.0 €  = 12.0 $
```

7- (char) procedure: ask for a letter and visualize its equivalent in int and binary

```
        case 7:
            System.out.print("Tell me a letter: ");
            char letra = (keyboard.next()).charAt(0);
            Function7(letra);
            break;

        private static void Function7(char letter) {

    String letterB = Integer.toBinaryString(letter);
    System.out.println(letter + " = " + letterB);

}
```

```
Choose an option
7
Tell me a letter: A
A = 1000001
```

8- (char-binary) - Function: Ask for a name and return its equivalent in binary.

```
 case 8:

            System.out.println("Tell me ur name: ");
               String name = keyboard.next();
            String result8 = Function8(name);
               System.out.println(result8);
            break;

private static String Function8(String name) {

    String result8 = "";
    char letter = ' ';
    for(int i = 0; i < name.length(); i++){
        letter = name.charAt(i);
        result8 += Integer.toBinaryString(letter)+ " ";
  }

    return result8;

  }
```

```
Choose an option
8
Tell me ur name:
Armando
1000001 1110010 1101101 1100001 1101110 1100100 1101111
```

9- (int-char) - Function: Ask for a number from 0 to 255 and display its equivalent in char

```
case 9:
            int number;
          do{
            System.out.println("Tell me a number betweeen 0 and 255: ");
            number = keyboard.nextInt();
          }while (number > 255 || number < 0);

            String result9 = Function9(number);
            System.out.println(result9);
            break;

private static String Function9(int number9) {

    String aChar = new Character((char)number9).toString();
    return aChar;

}
```

```
Choose an option
9
Tell me a number betweeen 0 and 255:
77
M
```

10- (char-int) - Procedure: put the ASCII table and visualize it: each character with its numerical equivalent and in hexadecimal

```
  case 10:
            Function10();
            break;
private static void Function10() {
     System.out.println("");
     for(int i = 0; i < 255; i++){
        System.out.println(i + "\t" +
         Integer.toString(i, 16) + " = " + (char)i);
     }
  }
```

```
65      41 = A
66      42 = B
67      43 = C
68      44 = D
69      45 = E
70      46 = F
```