

Sequence assignments

When creating the program code, you must apply the following basic principles:

- create a separate project for each assignment;
- use name 'assignment1', 'assignment2', etcetera for the projects;
- create one solution for each week containing the projects for that week;
- make sure the output of your programs are the same as the given screenshots;

Note: for assignment 1 and assignment 2, your output must contain a dot (.) as a decimal separator, and not a comma (,), see screenshots on the next page. To make sure your program uses a dot, add the following code to your program (2 using-statements and the code at the start of your Main-method):

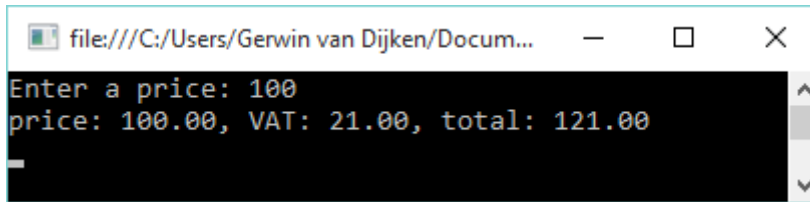
```
using System;
using System.Globalization;
using System.Threading;

static void Main(string[] args)
{
    // set culture of program
    CultureInfo ci = new CultureInfo("en-US");
    Thread.CurrentThread.CurrentUICulture = ci;
    Thread.CurrentThread.CurrentCulture = ci;

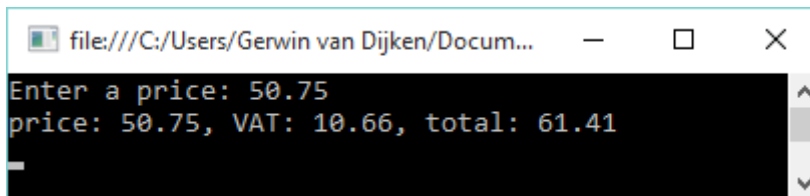
    // your code here...
}
```

Assignment 1 (Console App)

Enter a price. Determine the VAT (21%) on this price.
Print the price, VAT, and the price + VAT.



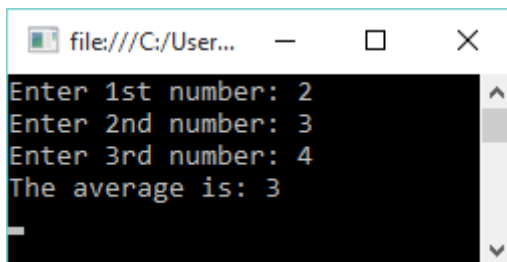
```
file:///C:/Users/Gerwin van Dijken/Docum...
Enter a price: 100
price: 100.00, VAT: 21.00, total: 121.00
```



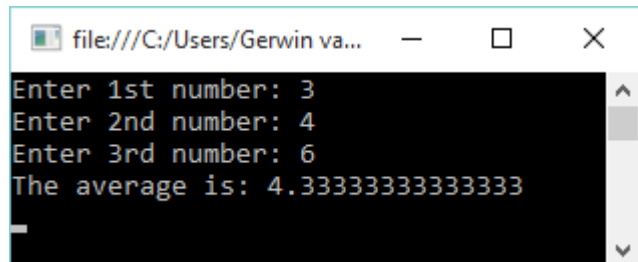
```
file:///C:/Users/Gerwin van Dijken/Docum...
Enter a price: 50.75
price: 50.75, VAT: 10.66, total: 61.41
```

Assignment 2 (Console App)

Enter three numbers. Calculate the average value of these numbers. Print the average value. NB: Division results in a floating point number!



```
file:///C:/User...
Enter 1st number: 2
Enter 2nd number: 3
Enter 3rd number: 4
The average is: 3
```

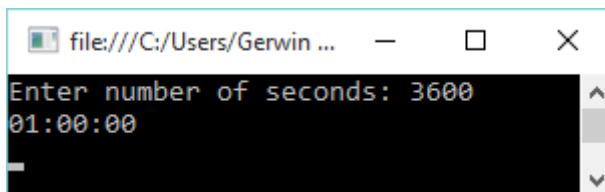


```
file:///C:/Users/Gerwin va...
Enter 1st number: 3
Enter 2nd number: 4
Enter 3rd number: 6
The average is: 4.333333333333333
```

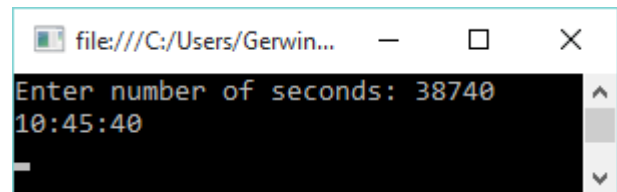
Assignment 3 (Console App)

Enter a number of seconds. Show this value as hours, minutes and seconds (hh:mm:ss, as shown on a digital alarm clock).

Hint: First determine the number of hours and subtract this from the number of seconds, then determine the number of minutes and subtract this from the number of seconds. Use operator / to divide numbers (if used for whole numbers, it will produce a whole number as the result, so after: hours = 130 / 60, hours will have value 2).



```
file:///C:/Users/Gerwin ...
Enter number of seconds: 3600
01:00:00
```



```
file:///C:/Users/Gerwin...
Enter number of seconds: 38740
10:45:40
```

Assignment 4 (Windows Forms App)

Enter a price. Determine the VAT (21%) on this price.
Print the price, VAT, and the price + VAT.

Sequence - assignment 4

Enter a price:

Price:	2595.00
VAT:	544.95
Total:	3139.95

Sequence - assignment 4

Enter a price:

Price:	123.50
VAT:	25.94
Total:	149.44

Assignment 5 (Windows Forms App)

Enter three numbers. Calculate the average value of these numbers. Print the average value. NB: Division results in a decimal number!

Sequence - assignment 5

Number 1:

Number 2:

Number 3:

Average 3.000

Sequence - assignment 5

Number 1:

Number 2:

Number 3:

Average 4.333

Assignment 6 (Windows Forms App)

Enter a number of seconds. Show this value as hours, minutes and seconds (hh:mm:ss).

Sequence - assignment 6

Seconds:

hours : minutes : seconds

01:00:00

Sequence - assignment 6

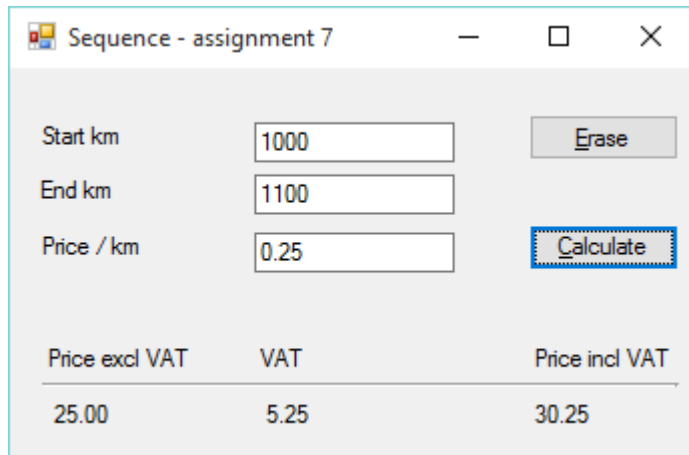
Seconds:

hours : minutes : seconds

10:45:40

Assignment 7 (Windows Forms App)

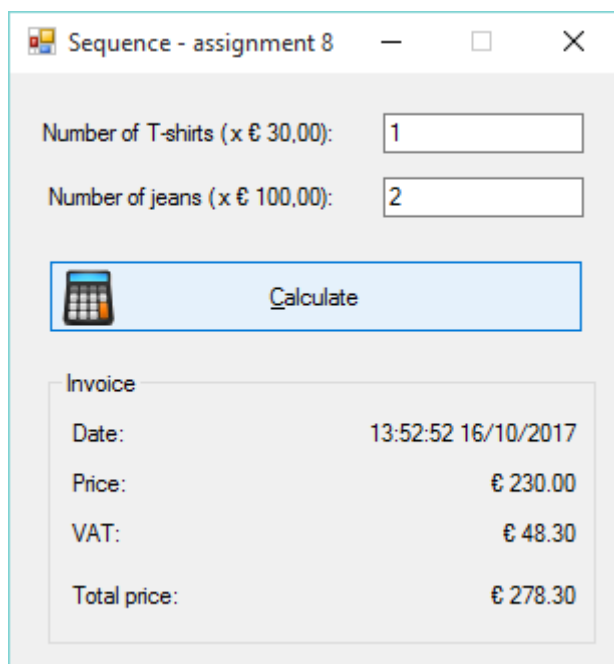
Create a car rental invoice. The amount to be paid is based on the number of kilometres shown on the odometer at the beginning and end of the rental period and the agreed kilometre rate, plus 21% VAT. Click on the button 'Calculate amounts', and the program will calculate the amount to be paid, excluding VAT, the VAT amount and the amount including VAT. These amounts are then shown in three labels, with two digits after the decimal. The input and output fields are erased (cleared) by pressing the 'Erase' button.



Price excl VAT	VAT	Price incl VAT
25.00	5.25	30.25

Assignment 8 (Windows Forms App)

Create an application for a shop that sells T-shirts (€30) and jeans (€100) (these prices are constant values). The salesman is required to indicate how many T-shirts and jeans each customer purchases. The application calculates the price the customer should pay.



Invoice

Date:	13:52:52 16/10/2017
Price:	€ 230.00
VAT:	€ 48.30
Total price:	€ 278.30

- format the prices correctly;
- put the calculator icon on the button;
- see DateTime for the time;
- switch off the maximisation button (as shown on the screenshot).