Programming the .Net Framework using C#

# Hangman

Object Oriented programming in C#

## Instructions

Write a windows application that implements the Hangman game, which works in the following way:

The program chooses a certain word from a word bank, and the user tries to guess the word.

In each turn one letter is being guessed. If the letter exists in the word, it should be placed and displayed in the correct positions inside the word. For example, the word "polymorphism" will be displayed as follows after the user has guessed the letters "m" and "o":

\_ o \_ \_ m o \_ \_ \_ \_ \_ m

If the guess was wrong, the program adds a part to the hangman diagram. The game is over when the user guesses the whole word correctly, or when the hangman diagram is completed.

In addition, the guessed letters so far should be displayed (or, alternatively, the un-chosen letters).

The GUI may be designed as you wish.

You should use different components, such as: labels, text fields, buttons and Images. The hanged man may be drawn by simple graphic (For example, you may use images of different stages of the hangman).

You should define 2 difficulty levels for the game.

It can be implemented by the number of parts of the hanged man.

You should enable the user to start a new game (a new word)

You should design the solution according to the OOP principles, i.e. you should define the main objects and assemble the program from them.

## Detailed Instructions

## Features in C# that are practiced in this project:

* Arrays, Strings
* Classes, Object Based programming, encapsulation

## Important Notes

* Build your classes based on the principles we learned in class.
* Define private and public as needed.
* As always, make sure your code is readable, using meaningful names, indentation and documentation.
* Avoid code duplication