

Problem Set 06 - CPP Project

For each C++ program create a file with a name in the format

`main4 n .cpp`

where n is the number of the program in the list below.

Tasks:

1. Write a program that creates a game of Hangman using the words from the accompanying file ‘`words.txt`’ as the word bank. It must randomly select from the word bank and use functions. The game must be case-insensitive, and allow the user to make at most 6 wrong guesses and to reset the game with a new word.
2. Write a program that creates a game of Hangman by defining a class that publicly inherits the accompanying class *HangManGame* and contains

- ☐ A public default constructor that loads the word bank from the file ‘`words.txt`’ and randomly selects one of the words from the word bank for the game.
- ☐ A public overridden `MakeGuess()` that makes visible to slots that contain the parameter if the parameter is a missing letter of the word, or decrements the player’s chances if the parameter is not a missing letter of the word. It should be case-insensitive and does nothing if the parameter is already a visible letter.
- ☐ A public overridden `HasSolved()` that returns true if the entire word is revealed; otherwise, it returns false.
- ☐ A public overridden `Chances()` that returns the remaining chances the player has.
- ☐ A public overridden `CanPlay()` that return returns true if the word is not completely revealed and the player has remaining chances; otherwise, it returns false.
- ☐ A public overridden `Reset()` that resets the game with a new word.
- ☐ A public overridden `ToString()` that generates a string in the format

Word: w
Changes: c left
Guesses: g

where w , c , and g are the currently revealed word, remaining player chances, and a list of letters already guessed, respectively.

Afterward, in the main function

- ☐ It creates a game object.
- ☐ It repeatedly displays the game object and prompts the user to enter a guess until the game cannot be played.
- ☐ It displays the results after the game ends and asks the player if they want to play again. If the player says yes, it starts a new game.