



GRIFFITH COLLEGE DUBLIN

COMPUTING ASSIGNMENT TITLE SHEET

Course:	B.Sc. in Computing (Level 7 and Level 8)
Stage/Year:	I
Module:	Computer Programming
Semester:	II
Assignment Number:	Take Home Assignment 3
Date of Title Issue:	04/4/18
Assignment Deadline:	27/4/18
Assignment Submission:	Submitted on Moodle
Assignment Weighting:	20%

Assignment Title

Java-based Hangman Game

Hangman is a paper and pencil guessing game for two or more players. One player thinks of a word, phrase or sentence and the other tries to guess it by suggesting letters. Our version will be a 1 player game where the user enters the difficulty level of the word (easy 4-6 letters, Medium 7-10 letters, Hard 10+ letters) and the program will randomly select a word from the correct word list text file.











Game Rules

The word to guess is represented by a row of dashes, giving the number of letters, numbers and category. If the guessing player suggests a letter which occurs in the word, the other player writes it in all its correct positions. If the suggested letter does not occur in the word, the other player draws one element of a hanged man stick figure as a tally mark. The game is over when:

- The guessing player completes the word, or guesses the whole word correctly
- The program completes the diagram

Example Game

The following example game illustrates a player trying to guess the word *hangman* using a strategy based solely on letter frequency.

0		Word: _ _ _ _ _ _ Guess: E Misses:
1		Word: _ _ _ _ _ _ Guess: T Misses: e
2		Word: _ _ _ _ _ _ Guess: A Misses: e,t
3		Word: _ A _ _ _ A _ Guess: O Misses: e,t
4		Word: _ A _ _ _ A _ Guess: I Misses: e,o,t
5		Word: _ A _ _ _ A _ Guess: S Misses: e,i,o,t
6		Word: _ A _ _ _ A _ Guess: N Misses: e,i,o,s,t
7		Word: _ A N _ _ A N Guess: H Misses: e,i,o,s,t
8		Word: H A N _ _ A N Guess: R Misses: e,i,o,s,t
9		Word: H A N _ _ A N Guess: Misses: e,i,o,r,s,t

Guesser loses - the answer was **HANGMAN**.

Deliverables:

For this assignment you are required to submit 2 pieces of work:

1. Java file containing your program (70%)
2. A design document to show your design of the program (30%)

Learning Outcomes

1. solve programming problems of modest complexity in a systematic, well- organised way
2. specify precisely the syntax and semantics of a programming language construct
3. select an appropriate program construct (or datatype) to achieve a given task
4. document accurately the design of a program on-the-fly

Assessment Criteria

Grading Matrix.	%	Good	OK	Poor	Missing	
Game System: (50%)						
Selecting difficulty level	2					0
Selecting random word from correct file.	10					
Hiding guessed word for other player	3					
Taking in guessed character	3					0
Checking for already entered value	6					0
Checking for values presence	5					0

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Treating uppercase & lowercase the same.	4					
Adding in correct letters	4					0
Adding missed guess part	5					0
Check for end game lose	4					0
Check for end game win	4					0
User Interface: (20%)						
Game style layout	2					0
Displaying hangman	5					
Displaying unused letters guessed	3					0
Displaying correct guesses	5					
Displaying mistakes / guesses made	2					
User feedback	3					0
Coding style: (20%)						
Indentation	3					0
Comments	4					0
Use of Methods	3					0
Use of 2D arrays	5					0
Use of Text files	5					0
Extra Features: (10%)						
Adding additional features to game.	10					0
Common Sense Grading:						
Gamed Submission	-60					0
Not Compiling	-20					0
						0
Total	100					0