

# Software Engineering – Assignment 1 – Group 3

**Students:** Salar Kalantari - Amir Sadrnia - Johnbosco Odinaka Asogwa

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**Software system:** Word Guessing Game

**Description:** This software system is a Guessing Word Game. It is inspired from the Wordle game published by *The New York Times Company*. In this software, users have six attempts to guess a five-letter word, with feedback given for each guess when letters match or occupy the correct position. In the first phase we will develop this software in which the users have to input the word in the software console and the result will be displayed in the console output. The software will randomly choose a WORD and then compare it with the inputted word. In the next phase, we may add some additional features to the software, for example colored base version or some visualization and some additional features.

## Requirements:

- **Data store** (Database of 5 letter words)
- **Algorithm** (Controller)
- **Input** from the User

## Features:

- The inputted word must be a **5 letter Word** and also a **Meaningful Word** (Not some random letters)
- **6 attempts** are allowed for guessing the Word each time
- In each attempt, there will be some **feedback** from software:  
whether one of the inputted letters match any letter of the WORD!  
whether one of the inputted letters are at the correct position of the WORD!

## Upgrade (additional feature):

- **Hint** – If the user couldn't guess the Word, the Software will give a Hint (for example which type is the word, It's a name, a verb, an animal, a color or some other properties)
- Guessing Words with **different** number of Letters
- **Visualization** (graphical representation of the game)

**Example:** The word **STORE** is chosen by the software and the user input a word every time (6 attempt is allowed!)

User Input	Feedback in Console	Visualization Feedback																														
IMAGE	The 5'th letter is right and in the correct position.	<table><tr><td>I</td><td>M</td><td>A</td><td>G</td><td>E</td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr></table>	I	M	A	G	E																									
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LARGE	The 3'rd letter is right but in the wrong position. The 5'th letter is right and in the correct position.	<table><tr><td>I</td><td>M</td><td>A</td><td>G</td><td>E</td></tr><tr><td>L</td><td>A</td><td>R</td><td>G</td><td>E</td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr></table>	I	M	A	G	E	L	A	R	G	E																				
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L	A	R	G	E																												
RESET	The 1'st letter is right but in the wrong position. The 2'nd letter is right but in the wrong position. The 3'rd letter is right but in the wrong position. The 5'th letter is right but in the wrong position.	<table><tr><td>I</td><td>M</td><td>A</td><td>G</td><td>E</td></tr><tr><td>L</td><td>A</td><td>R</td><td>G</td><td>E</td></tr><tr><td>R</td><td>E</td><td>S</td><td>E</td><td>T</td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr></table>	I	M	A	G	E	L	A	R	G	E	R	E	S	E	T															
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STARE	The 1'st letter is right and in the correct position. The 2'nd letter is right and in the correct position. The 4'th letter is right and in the correct position. The 5'th letter is right and in the correct position.	<table><tr><td>I</td><td>M</td><td>A</td><td>G</td><td>E</td></tr><tr><td>L</td><td>A</td><td>R</td><td>G</td><td>E</td></tr><tr><td>R</td><td>E</td><td>S</td><td>E</td><td>T</td></tr><tr><td>S</td><td>T</td><td>A</td><td>R</td><td>E</td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr></table>	I	M	A	G	E	L	A	R	G	E	R	E	S	E	T	S	T	A	R	E										
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STORE	Congratulations, you WON!	<table><tr><td>I</td><td>M</td><td>A</td><td>G</td><td>E</td></tr><tr><td>L</td><td>A</td><td>R</td><td>G</td><td>E</td></tr><tr><td>R</td><td>E</td><td>S</td><td>E</td><td>T</td></tr><tr><td>S</td><td>T</td><td>A</td><td>R</td><td>E</td></tr><tr><td>S</td><td>T</td><td>O</td><td>R</td><td>E</td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr></table>	I	M	A	G	E	L	A	R	G	E	R	E	S	E	T	S	T	A	R	E	S	T	O	R	E					
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