Hangman Documentation

EPARTMENT OF COMPUTER & INFORMATION SYSTEMS ENGINEERING
BACHELORS IN COMPUTER SYSTEMS ENGINEERING
Course Code: CS-115
Course Title: Computer Programming
Complex Engineering Problem
FE Batch 2022, Fall Semester 2022
Grading Rubric
TERM PROJECT

Group Members:

Student No.	Name	Roll No.
S1	**Hamza Ali**	**CS-22146**
S2	**Moatasim Qureshi**	**CS-22117**
S3	**Awab Shuja**	**CS-22132**

CRITERIA AND SCALES				Marks Obtained		
				S1	S2	S3
Criterion 1: Does the application meet the desired specifications and produce the desired outputs? (CPA-1, CPA-3) **[8 marks]**						
1	2	3	4			
The application does not meet the desired specifications and is producing incorrect outputs.	The application partially meets the desired specifications and is producing incorrect or partially correct outputs.	The application meets the desired specifications but is producing incorrect or partially correct outputs.	The application meets all the desired specifications and is producing correct outputs.			
Criterion 2: How well is the code organization? **[2 marks]**						
1	2	3	4			
The code is poorly organized and very difficult to read.	The code is readable only to someone who knows what it is supposed to be doing.	Some part of the code is well organized, while some part is difficult to follow.	The code is well organized and very easy to follow.			
Criterion 3: How friendly is the application interface? (CPA-1, CPA-3) **[2 marks]**						
1	2	3	4			
The application interface is difficult to understand and use.	The application interface is easy to understand and but not that comfortable to use.	The application interface is very easy to understand and use.	The application interface is very interesting/ innovative and easy to understand and use.			
Criterion 4: How does the student performed individually and as a team member? (CPA-2, CPA-3) **[4 marks]**						
1	2	3	4			
The student did not work on the assigned task.	The student worked on the assigned task, and accomplished goals partially.	The student worked on the assigned task, and accomplished goals satisfactorily.	The student worked on the assigned task, and accomplished goals beyond expectations.			
Criterion 5: Does the report adhere to the given format and requirements? **[4 marks]**						
1	2	3	4			
The report does not contain the required information and is formatted poorly.	The report contains the required information only partially but is formatted well.	The report contains all the required information but is formatted poorly.	The report contains all the required information and completely adheres to the given format.			
			Total Marks:			

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Teacher Signature

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PROBLEM DESCRIPTION:

The following are the rules that are applied in the game:

- At the start of the game, the player will have instructions about how many letters the secret word contains and how many guesses and warnings are remaining.
- The Users start with 6 guesses and 3 warnings.
- The program will keeps track of all the letters the player has not guessed so far and before each turn it will shows the player the remaining letters.
- One guess at a time should be requested from the player. The player should be informed whether the letter is in the secret word right away after each guess. Additionally, the secret word will be revealed after right to the player, and replacing any characters that were not correctly predicted with an underscore and a space.
- Both capitals and lowercase characters are acceptable guesses in this game. Ask the player to enter valid input if they enter anything other than the alphabet.
- The player does not lose any guesses or warnings if they enter a letter that hasn't been guessed before and is part of the secret word.
- If a player enters a consonant that hasn't been guessed and isn't present in the secret word, they lose one guess.
- The player loses two guesses if the vowel isn't in the secret word and hasn't been guessed.
- The player loses a warning each time they enter something other than an alphabet (symbols, digits) or a letter that has previously been guessed. The player loses a guess if there are no warnings left.
- When a player forms the entire word or runs out of guesses, the game should be over.
- The game is over and the word is revealed if the player runs out of guesses before finishing the word. The game ends.
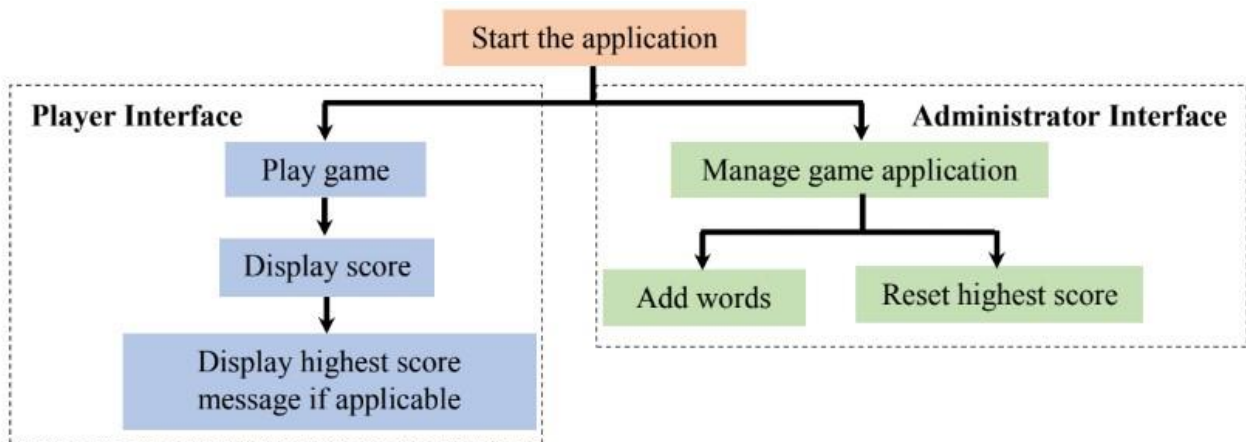
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FEATURES OF THE PROJECT:

The following are the features of the Hangman Documentation:

- **I.** Our programs command line interface (CLI) is user friendly. **II.** Variables are used to make code neat.

III. Comments are added so that the code is easily readable. **IV.** Multiple while and for loops are used in our program.

CHALLENGING PART OF THE PROJECT:

The most challenging part that we faced while working on a project is the looping part because there were too many rules in the game problem, as every step contains a loop so it was difficult for us to handle it. It takes so much time to make a perfect program because the main part was a loop as all the rules applied over that part. And it was more difficult for our group to handle the loop part because we used a loop inside a loop and if the rule did not satisfy we used another loop for that rule. And when we discuss about loop there comes if, elif, and else structures which have their own rule. The "IF" structure will check every statement written in its loop, the "ELIF" structure will check if the "IF" structure didn't satisfy, and the "ELSE" structure will check if either "IF" or "ELIF" didn't satisfy. So one of the challenging parts was to handle where the "IF" structure is suitable and where "ELIF" and where should take place inside whether inside the loop or outer loop because in every step there is a condition so it takes a lot of time to complete the main part of the game.

WHAT DO YOU LEARNT IN PYTHON?

We have learned a lot from this project as well as from Python. As we get to know Python functions and their rules and everything so basically it has improved our knowledge about Python while working on it. As Python is a much easier language as compared to other languages so it was more helpful to understand for beginners and that's where we gain knowledge about python.

The things we learned from Python while working on a project are:

How to use loop structure properly while working on a project, was a major thing we learned and another thing that we learned is that "List structure" at what point the List is needed most and what the use of list and it has to gain our knowledge towards python**.**

INDIVIDUAL CONTRIBUTIONS OF EACH GROUP MEMBER IN THE GROUP:

Contribution:

- **I.** **Moatasim Qureshi (CS-117):** The Contribution of Moatasim to the project is about the "Administrator Interface" as he provides and manages the entire Administrator and worked hard to provide every possible thing to have a suitable and proper Interface for the Administrator. He has also used functions too for well-organized Interface for the Administrator.
- **II.** **Awab Shuja (CS-132):** The Contributions of Awab to the project are about the main body of the project where all the rules are applied. Awab has mainly used the IF-ELSE structure to organize a code. And he also used Lists and as well as functions too to develop code properly but it was a

major part of the program so Awab with another member named Hamza of the group contributed and they both establish a code together.

III.   **Hamza Ali (CS-146):** The Contributions that Hamza put to this project are about the main body and high score. As we have discussed before that Hamza and Awab have handled the main body of the project. He has also developed ideas and put his efforts to make code looks suitable. Hamza has not only helped in developing a code for the main body but also organize a code for the high score. For high scores, he used filing and organized a List of the high score.

FLOW OF THE PROJECT

WINNING GAME

```
x=x=x=x=x=x=x=x=x=x=x Welcome To The Hangman Game! x=x=x=x=x=x==x=x=x=x==x=x
Press [A] To Open Administration Panel
Press [H] To Play the Game H
Welcome to the hangman game
Enter your name to enter the game:anas
Hello anas
You have 6 guesses and 3 warnings
You've to guess a word of 4 letters
Total word : a b c d e f g h i j k l m n o p q r s t u v w x y z
____ Type your letter:s
__s_ Type your letter:c
abdefghijklmnopqrtuvwxyz
sorry wrong guess :(
you have 5 guesses left and 3 warnings left

__s_ Type your letter:9
please type valid character
Guess from this list of letters
you have 5 guesses left and 2 warnings left
__s_ Type your letter:t
t_st Type your letter:$
please type valid character
Guess from this list of letters
you have 5 guesses left and 1 warnings left
t_st Type your letter:e
test Correct! the word is test
Congratulations anas you have won the game
anas your Score is 10
The high score is 10 and it was achieved by anas
```

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LOSING GAME

```
x=x=x=x=x=x=x=x=x=x=x Welcome To The Hangman Game! x=x=x=x=x=x==x=x=x=x==x=x
Press [A] To Open Administration Panel
Press [H] To Play the Game H
Welcome to the hangman game
Enter your name to enter the game:yahya
Hello yahya
You have 6 guesses and 3 warnings
You've to guess a word of 4 letters
Total word : a b c d e f g h i j k l m n o p q r s t u v w x y z
____ Type your letter:a
bcdefghijklmnopqrstuvwxyz
you type wrong vovel
you have 4 guesses left and 3 warnings left
____ Type your letter:c
bdefghijklmnopqrstuvwxyz
sorry wrong guess :(
you have 3 guesses left and 3 warnings left
____ Type your letter:s
__s_ Type your letter:5
please type valid character
Guess from this list of letters
you have 3 guesses left and 2 warnings left
__s_ Type your letter:a
sorry yahya you have already guess that letter!
you have 3 guesses left
you have 1 warnings left
__s_ Type your letter:o
bdefghijklmnpqrtuvwxyz
you type wrong vovel
you have 1 guesses left and 1 warnings left
__s_ Type your letter:!
please type valid character
Guess from this list of letters
you have 1 guesses left and 0 warnings left
You're out of warnings
Now you'll lose a guess
__s_ Type your letter:h
bdefgijklmnpqrtuvwxyz
sorry wrong guess :(
you have 0 guesses left and 0 warnings left
Game over yahya you lost the game!
The given word was test
yahya your score is 0
The high score is 10 and it was achieved by anas
```