K16SO 2022 SEPTEMBER
Object-Oriented Programming
ASSIGNMENT

Assignment Information

Group size : 4 students in a group

DueDate : 13 November 2022

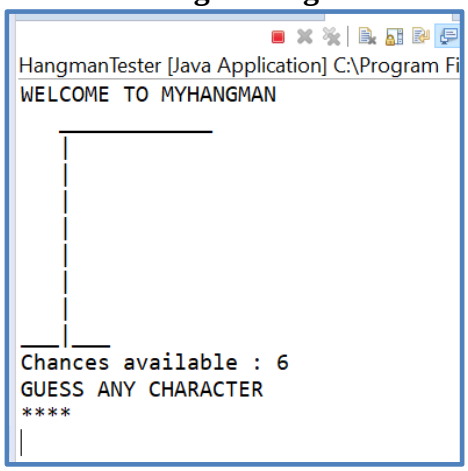
Introduction:
This assignment is creation of Hangman using Array/Arraylist. Player are given 6 chances for their guessing. Player are shown a set of * letters that match a word. Player have to guess the letter to reveal the hidden word. If the letter entered is in the word, then * should be replaced with the entered letter. If the letter isn't in the word, then the program will add a body part to the gallows. If player managed to guess the word before all body parts are on gallows, player win the game.

Requirement:

Word in game - You should create a class named **Vocab** to create the object representing word in the game. In this class, you should include the colour code as field. Each word can have different colour in the game. You can use Array/ArrayList to keep the object. All the words are pre-set.
Record – You should create a class named Record to keep the details of players. In this class, you should include the StudentID, StudentName and the time you completed the game as field. You should have a method to print the details of players in the game.
Gallows design – You should design your own gallows and the body parts used in the game. You can use the ANSI ESCAPE to show the colour.
Chances – Player are given 6 chances in each game. You should show to player their remaining chances.
 # iteration – After each round of game, you should let user to decide either to continue or quit the game.
Structure of game – You should create a tester class to run this game. All the game should be created using object-oriented concepts.

Sample running of the game as below:

1. **Starting of the game**



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2. **Wrong guessing**

```
s
You are WRONG , try again
    _____________
    |            |
    |
    |
    |
    |
    |
    |
___|___
Chances available : 5
GUESS ANY CHARACTER
****
```

3. **Wrong guessing**

```
f
You are WRONG , try again
    _____________
    |            |
    |           _|_
    |          |   |
    |           ---
    |
    |
    |
    |
___|___
Chances available : 4
GUESS ANY CHARACTER
****
```

4. **Correct guessing**

```
a
|   _____________
    |            |
    |           _|_
    |          |   |
    |           ---
    |
    |
    |
    |
___|___
Chances available : 4
GUESS ANY CHARACTER
*a*a
```

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5. **Wrong guessing**

```
You are WRONG , try again
    _____________
    |           _|_
    |          |   |
    |           ---
    |            |
    |            |
    |
    |
____|____
Chances available : 3
GUESS ANY CHARACTER
*a*a
```

6. **Wrong guessing**

```
k
You are WRONG , try again
    _____________
    |           _|_
    |          |   |
    |           ---
    |          --|--
    |         /  |  \
    |
____|____
Chances available : 2
GUESS ANY CHARACTER
*a*a
```

7. **Wrong guessing**

```
m
You are WRONG , try again
    _____________
    |           _|_
    |          |   |
    |           ---
    |          --|--
    |         /  |  \
    |           / \
____|____
Chances available : 1
GUESS ANY CHARACTER
*a*a
```

8. **Wrong guessing**

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```
n
You are WRONG , try again
YOU LOST! GAME OVER.....
    _____________
    |          _|_
    |         |- -|
    |          ---
    |         --|--
    |        /  |  \
    |          / \
___|___
Chances available : 0
GAME OVER! The word was Java
Continue again? Y/y
```

9. **Restart the game after user decide to continue**

```
HangmanTester [Java Application] C:\Pro
WELCOME TO MYHANGMAN
    _____________
    |
    |
    |
    |
    |
    |
    |
___|___
Chances available : 6
GUESS ANY CHARACTER
*********
```

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