



NANYANG
TECHNOLOGICAL
UNIVERSITY

CE1003/CZ1003: Introduction to Computational
Thinking

Assignment 2 Program Testing
Python Hangman Game

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SEMESTER 1

SCHOOL OF COMPUTER ENGINEERING
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Test case #1

1. Allow player to choose a category between 1 to 4
2. Display which category the player has chosen
3. Tell the player the length of the random word they have to guess
4. Prompt the player to guess a character or guess the whole word

```
1. Animals
2. Fruits
3. Country
4. Flowers
Choose a category [1-4]: 1

The category you have choosen is:  Animals

The word to guess is 12  characters long
```

```
Animals : _ _ _ _ _ _ _ _ _ _
Please input a character or guess the word:
```

Test case #2

1. If the character guess is correct, the blanks get updated with the character.
2. Program shows what characters have already been guessed.

```
1. Animals
2. Fruits
3. Country
4. Flowers
Choose a category [1-4]: 1

The category you have choosen is: Animals

The word to guess is 12 characters long


Animals : _ _ _ _ _ _ _ _ _ _ _ _
Please input a character or guess the word: a


Animals : _ _ _ _ _ _ _ _ A _ _ _
Previous guesses: A
Please input a character or guess the word:
```

Test case #3

1. If the character guess is wrong, a message saying ***“Character not in the word”*** is displayed and the corresponding ASCII art for the Hangman appears. The following is the program screen capture showing what happens when the player cannot guess the word even 9 wrong inputs.

```

Animals : _ _ _ _ _ A _ _ _
Previous guesses: A
Please input a character or guess the word: x

```

```
| Character not in the word
```

```

Animals : _ _ _ _ _ A _ _ _ _
Previous guesses: A X

```

1st wrong guess

```
Please input a character or guess the word: c
```

| Character not in the word |

—

```

Animals : _ _ _ _ _ A _ _ _
Previous guesses: A X C

```

2nd wrong guess

```
Please input a character or guess the word: v
```

```
| Character not in the word
```

```

Animals : _ _ _ _ _ A _ _ _
Previous guesses: A X C V

```

3rd wrong guess

```
Please input a character or guess the word: b
```

```
| Character not in the word
```

()

```

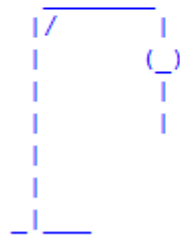
Animals : _ _ _ _ A _ _ _
Previous guesses: A X C V B _ _ _

```

4th wrong guess

Please input a character or guess the word: w

Character not in the word

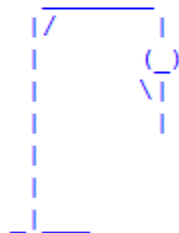


Animals : _ _ _ _ _ A _ _ _ _
Previous guesses: A X C V B W

5th wrong guess

Please input a character or guess the word: y

Character not in the word



Animals : _ _ _ _ _ A _ _ _ _
Previous guesses: A X C V B W Y

6th wrong guess

Please input a character or guess the word: q

Character not in the word

```
  /_____|
 |       |
 |       | ( )
 |       | \|/
 |       |
 |_____|
```

Animals : _ _ _ _ _ A _
Previous guesses: A X C V B W Y Q

7th wrong guess

Please input a character or guess the word: k

Character not in the word

```
  /_____|
 |       |
 |       | ( )
 |       | \|/
 |       |
 |_____|
```

Animals : _ _ _ _ _ A _ U
Previous guesses: A X C V B W Y Q U K

8th wrong guess

```
Please input a character or guess the word: g
```

```
| Character not in the word
```

```

| /      |
|         | ( )
| \     \| /
|         |
| /  \    GAME OVER

```

YOU FAIL!
Correct word: HIPPOPOTAMUS
Would you like to play again? (Y/N):

9th wrong guess → GAME OVER

Test case #4

1. Program testing showing what happens when player is able to guess the word.

```
1. Animals
2. Fruits
3. Country
4. Flowers
Choose a category [1-4]: 2

The category you have choosen is:  Fruits

The word to guess is 6  characters long


Fruits : _ _ _ _ _
Please input a character or guess the word: a


Fruits : _ A _ A _ A
Previous guesses: A
```

```
Fruits : _ A _ A _ A
Previous guesses: A
Please input a character or guess the word: b
```

```
Fruits : B A _ A _ A
Previous guesses: A B
Please input a character or guess the word: n
```

```
Fruits : B A N A N A
```

```
  ( )
  \|/
  |
 / \ YOU WIN!
```

```
Would you like to play again? (Y/N): |
```

Test case #5

1. Player is allowed to guess the whole word.

```
1. Animals
2. Fruits
3. Country
4. Flowers
Choose a category [1-4]: 4

The category you have choosen is:  Flowers

The word to guess is 5  characters long
```

```
Flowers : _ _ _ _ _
Please input a character or guess the word: t
```

```
Flowers : T _ _ _ _
Previous guesses: T
```


Please input a character or guess the word: tulip

```
-----  
|      You guessed the word correctly      |  
-----
```

```
  ( )  
  \|/  
  |  
 /  \ YOU WIN!
```

Would you like to play again? (Y/N): |

Test case #6 (Validations & Corresponding Alert messages)

#	<u>Validations & Alert messages</u>	
1	Check that the player input character is not in the word and alert player	<pre> Please input a character or guess the word: t ----- Character not in the word ----- _____ Country : _ _ _ _ _ Previous guesses: T </pre>
2	Check if player has already guessed the character.	<pre> Please input a character or guess the word: t ----- You have already guessed this character ----- _____ Country : _ _ _ _ _ Previous guesses: T </pre> <div data-bbox="446 1384 1136 1617" style="background-color: yellow; border: 1px solid black; padding: 10px; margin-top: 20px;"> <p>The player has already guessed the alphabet “T” previously, therefore the program will prompt player that “T” has already been guessed.</p> </div> 

3	Check that the player only inputs alphabets	<pre> Please input a character or guess the word: 4 ----- You can only input alphabets ----- _____ Country : _ _ _ _ _ Previous guesses: T _ </pre>
4	Check that the player has used the whole word correctly, if not alert player.	<pre> Please input a character or guess the word: monkey ----- That is not the correct match! Keep trying! ----- _____ Animals : _ _ _ _ _ </pre>

5	Check that player inputs only a single character or the whole word. Prompt error if otherwise.	<pre>Please input a character or guess the word: p&&&&&&&^^^333k ----- Please enter either a single character or whole word ----- Country : _ _ _ _ _</pre>
6	Player is only able to choose the category between 1 to 4 and nothing else	<pre>1. Animals 2. Fruits 3. Country 4. Flowers Choose a category [1-4]: flower Please enter a choice between 1 and 4. 1. Animals 2. Fruits 3. Country 4. Flowers Choose a category [1-4]: 9 Please enter a choice between 1 and 4. 1. Animals 2. Fruits 3. Country 4. Flowers Choose a category [1-4]: *****5 Please enter a choice between 1 and 4. 1. Animals 2. Fruits 3. Country 4. Flowers Choose a category [1-4]: 3 The category you have choosen is: Country The word to guess is 7 characters long</pre>