**SD Module-II: PYTHON and DATA Science with R**

**Assignment: 4**

**Title: Hangman Game**

Problem Statement: Write a Python program to implement Hangman Game

**Python Code:**

import random

WORD\_LIST = [

'apple',

'mango',

'kiwi',

'banana',

'pineapple',

'coconut',

'orange',

]

HANGMAN = (

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x-------x

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x-------x

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x-------x

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x-------x

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"""

)

MAX = len(HANGMAN) - 1

ALPHABETH = 'abcdefghijklmnopqrstuvwxyz'

def guess\_letter(letters\_guessed):

while True:

guess = raw\_input('Guess a letter : ').lower()

if guess not in ALPHABETH:

print guess, 'is like totally not in the alphabet , try again!'

elif guess in letters\_guessed:

print 'You already guessed {}.. PAY ATTENTION!'.format(guess)

else:

return guess

def play\_hangman():

hang\_size = 0

word\_to\_guess = random.choice(WORD\_LIST)

word\_to\_guess\_spaced = ' '.join(word\_to\_guess)

hidden = ['\_']\*len(word\_to\_guess)

letters\_guessed = set()

user\_guessed\_word\_spaced = ' '.join(hidden)

print "HANGMAN!"

while hang\_size < MAX:

print

print user\_guessed\_word\_spaced

user\_guess = guess\_letter(letters\_guessed)

letters\_guessed.add(user\_guess)

if user\_guess in word\_to\_guess:

print "\nYeah yeah.. We're all impressed.. {} is in the word woohoo..".format(user\_guess)

for i, letter in enumerate(word\_to\_guess):

if user\_guess == letter:

hidden[i] = letter

user\_guessed\_word\_spaced = ' '.join(hidden)

if user\_guessed\_word\_spaced == word\_to\_guess\_spaced:

print

print word\_to\_guess

break

else:

print "{}.. Really? That's the best you can do.. Not in my word..".format(user\_guess)

hang\_size += 1

print HANGMAN[hang\_size]

return user\_guessed\_word\_spaced == word\_to\_guess\_spaced

if \_\_name\_\_ == '\_\_main\_\_':

is\_winner = play\_hangman()

if is\_winner:

print '\nYou win! Finally you did something right!'

else:

print '\nGAME OVER'

**Sample Output:**

Python 2.7.10 (default, May 23 2015, 09:40:32) [MSC v.1500 32 bit (Intel)] on Ubuntu 16.04

Type "copyright", "credits" or "license()" for more information.

HANGMAN!

\_ \_ \_ \_ \_ \_

Guess a letter: a

Yeah yeah.. We're all impressed.. a is in the word woohoo..

\_ a \_ a \_ a

Guess a letter: p

p.. Really? That's the best you can do.. Not in my word..

x-------x

|

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|

\_ a \_ a \_ a

Guess a letter : b

Yeah yeah.. We're all impressed.. b is in the word woohoo..

b a \_ a \_ a

Guess a letter : n

Yeah yeah.. We're all impressed.. n is in the word woohoo..

banana

You win! Finally you did something right!