2ND QUIZ REPORT

DESIGN AND ANALYSIS OF ALGORITHM

BY:

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SURABAYA

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STATEMENT LETTER

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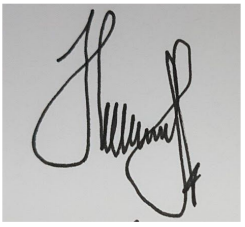
By the name of Allah (God) Almighty, herewith I pledge and truly declare that I have solved quiz 1 by myself, didn't do any cheating by any means, didn't do any plagiarism, and didn't accept anybody's help by any means. I am going to accept all of the consequences by any means if it has proven that I have been done any cheating and/or plagiarism.

Surabaya, 29 March 2019



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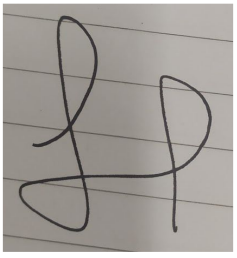

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For this second Quiz we're making a game called "Number Guessing". The player of this game divide into 2, use the player who guessing the number which already generated by Computer via random. If you want another player, you can do that.

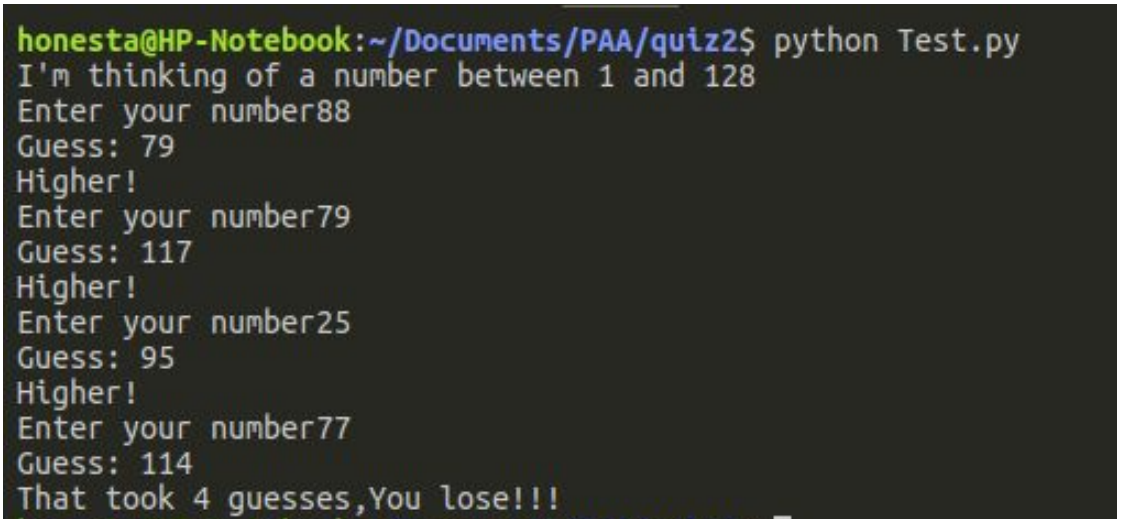
In here We're using BST to the computer to generating the number. If the player(s) guess(ess) lower than the randomed(?) number, then the computer will tell you that you need higher to guess and vice versa. If you can guess it, the game will break and and tell you how many you attempted to guessed it and tell that you'll win and vice versa.

In here We're using Python Version 3.

Source Code

```
# Simulate (or actually play) Guess the Number
#   The number lies in a given range. Choose the number in the middle.
#   If guess was too high, choose number in middle of lower half,
#   if guess was too low,  choose number in middle of upper half.
#   Halve the appropriate range and repeat unti the number is correct.
binary=False                    # set this to True or False
lonum,hinum=1,128               # range for the number

import random as r

the_num=r.randint(lonum,hinum)  # computer chooses a number randomly
print("I'm thinking of a number between",lonum,"and",hinum)

lo=1
hi=hinum
guesses=0

for i in range(lonum,hinum):    # repeat this until guess is correct:
                                  # note the int!
#    guess=int(input ("What is your guess: ")) # if you want to play 2 players, just uncomment this
    if binary:  guess=lo+(hi-lo)//2     # integer division
    else:       guess=r.randint(lo,hi)

    guesses+=1                    # add 1 to count of guesses
    Input1 = input ("Enter your number")
    print("Guess:",guess)
    Number = int(Input1)
    # check the guessed number
    if guess > the_num:

        hi=guess
            # bring down the upper bound
    elif guess < the_num:

        lo=guess      # push up the lower bound

    elif guess == the_num:
        print("That took",guesses,"guesses,You lose!!!" )
        break
    else : guess == guess+1                # yay!
    if Number > the_num:
        print("Lower!")
    elif Number< the_num:
        print("Higher!")
    elif Number== the_num:
        print("That took",guesses,"guesses,You win!!!" )
        break
#    else: break
```

Output


honesta@HP-Notebook:~/Documents/PAA/quiz2$ python Test.py
I'm thinking of a number between 1 and 128
Enter your number88
Guess: 79
Higher!
Enter your number79
Guess: 117
Higher!
Enter your number25
Guess: 95
Higher!
Enter your number77
Guess: 114
That took 4 guesses,You lose!!!