Finger Exercises Lecture 6

The questions below are due on Wednesday September 28, 2022; 03:00:00 PM.

1) Question 1 of 1

Assume you are given an integer 0 <= N <= 1000. Write a piece of Python code that uses bisection search to guess N. The code prints two lines: `count:` with how many guesses it took to find N, and `answer:` with the value of N. Hints: If the halfway value is exactly in between two integers, choose the smaller one.

```
# Write your code here
low = 0
high = 1000
guess = (low + high)//2
count = 1
while guess != N:
    if guess < N:
        low = guess
    else:
        high = guess
    guess = (low + high)/2
    count += 1
answer = guess
print(f'How many guesses it took to find N: {count}')
print(f'N is: {answer}')
```

You have infinitely many submissions remaining.

Here is the solution we wrote:

```
low = 0
high = 1001
guess = (high+low)//2
count = 1
while guess != N:
    if guess < N:
    low = guess
    elif guess > N:
    high = guess
    guess = (high+low)//2
  count +=   1
print("count:",count)
print("answer:",guess)
```

6.100L Introduction to CS and Programming Using Python

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