

Programming Exercise 13.2

Over-Under Guessing Game, v.3.0

Purpose. Learn how to use loops.

Requirements. Rewrite your `OverUnder2.java` from Exercise 6.7 as `OverUnder3.java`. Modify the program to track the numbers guessed by the user, and output a message if the user guesses a number already guessed. Use an array-based list of capacity 100 to store the guessed numbers. After the user guesses a number and BEFORE checking to see if it is too high or too low or correct, insert these logical steps:

```
Search the list to see if the number has already been guessed -- the list
    may be empty, and that's ok
```

```
if the number has already been guessed
    output that the number (say what it is) has already been guessed
```

```
otherwise
    add the number to the array-based list
```

Program I/O. Same as Exercise 6.7, plus the "already guessed" message where applicable.

Example. User input in blue:

```
I'm thinking of a number between 1 and 100. Guess what it is: 50
That's too high -- guess again: 25
That's too low -- guess again: 37
That's too high -- guess again: 31
That's too high -- guess again: 25
You already guessed 25 -- guess again: 28
That's right -- it's 28
```