

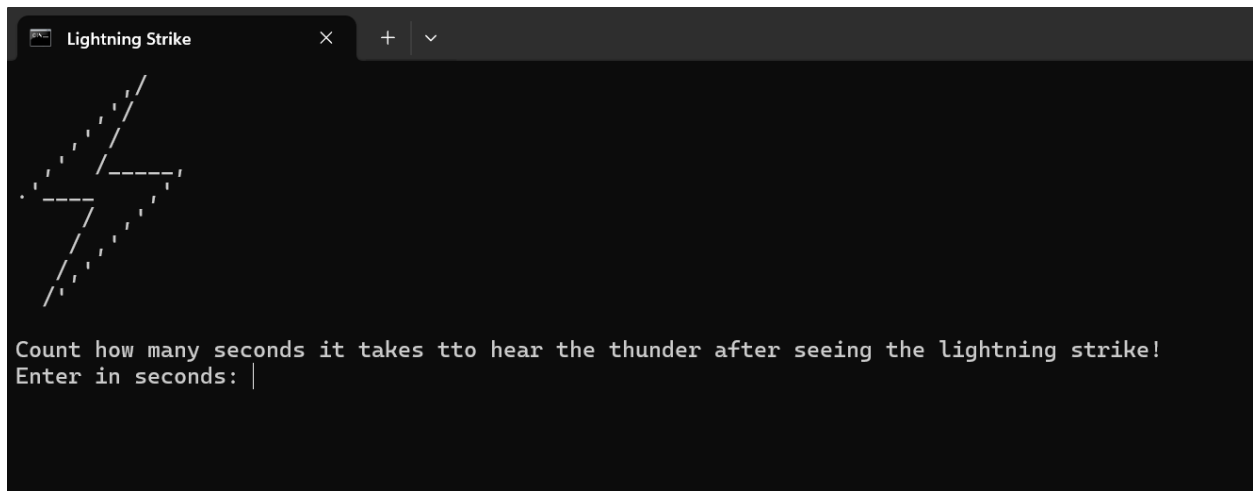
Object Oriented Programming

Prof. Fred Stiebler

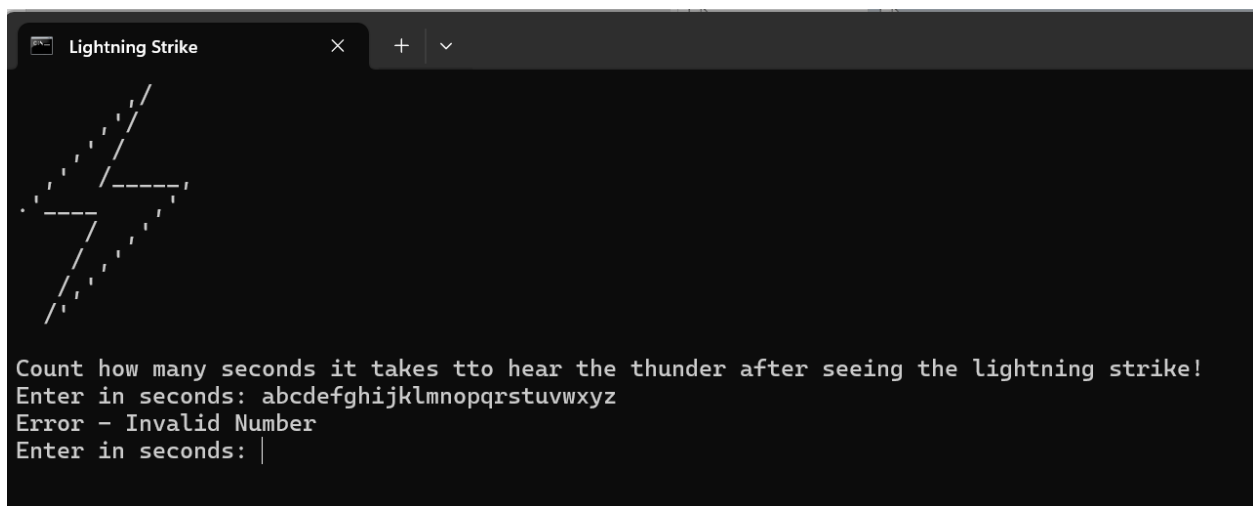
ICE-3

Nischal Shrestha Kasula

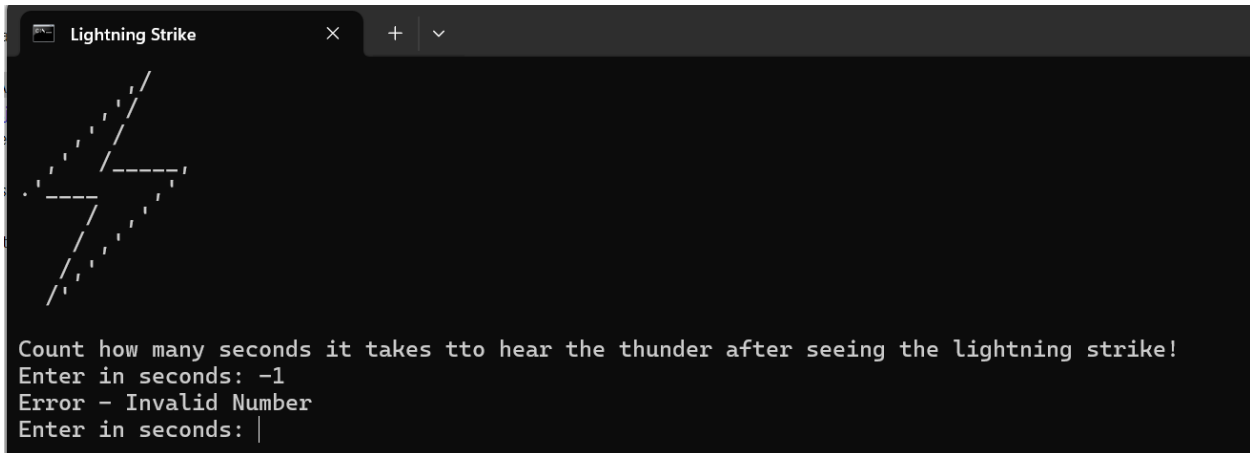
SS1: Initial screen / what you see as soon the app is open.



SS2: Entered something non-numeric and the error message.

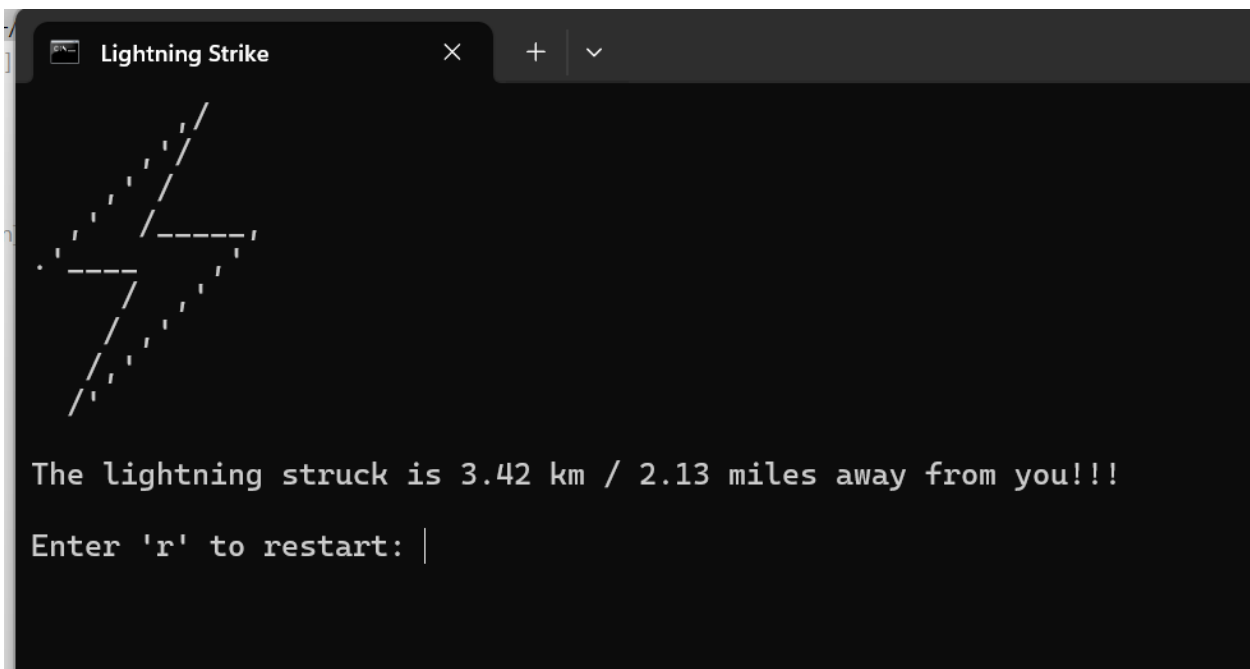


SS3: Entered the number lower than valid range and the error message



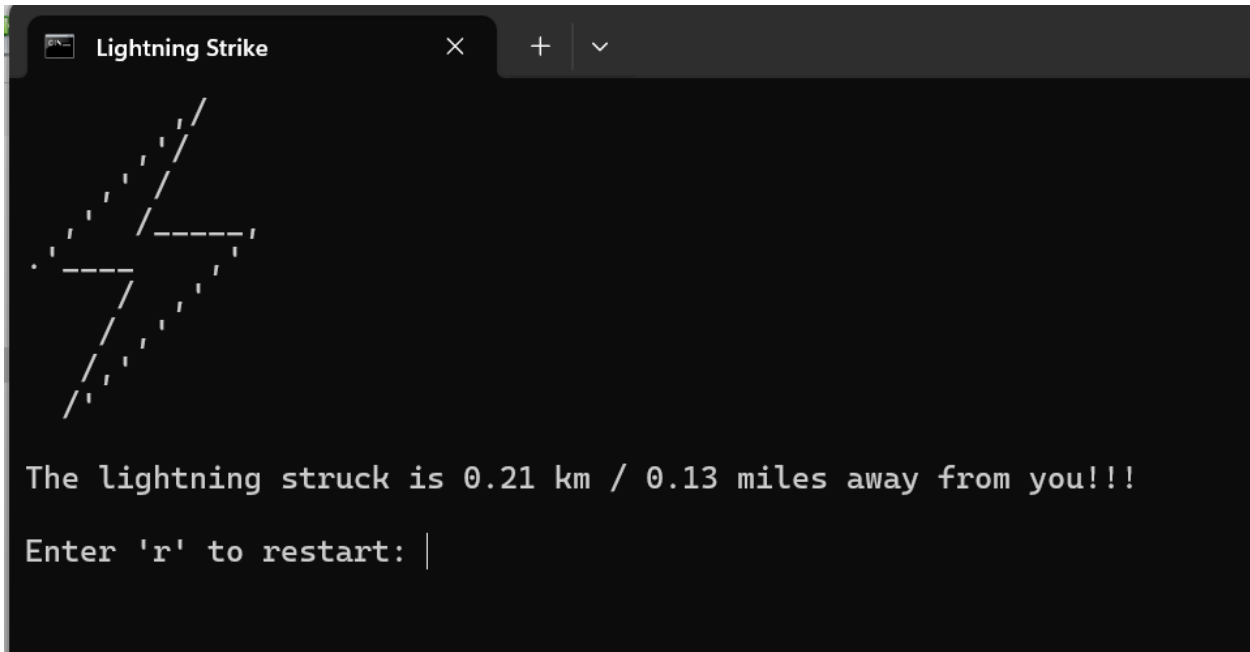
```
Count how many seconds it takes tto hear the thunder after seeing the lightning strike!  
Enter in seconds: -1  
Error - Invalid Number  
Enter in seconds: |
```

SS4: Entered a valid whole number (10) and the output screen with restart prompt



```
The lightning struck is 3.42 km / 2.13 miles away from you!!!  
Enter 'r' to restart: |
```

SS5: Entered a valid number with decimal places (0.6) and shown the output message.



```
Lightning Strike X + v

The lightning struck is 0.21 km / 0.13 miles away from you!!!

Enter 'r' to restart: |
```

? QUESTION 1 - What is the difference between a constant and a variable?

Variables can change during execution, while constants remain fixed once assigned.

? QUESTION 2 - Why is it important to use constants in your code?

Constants improve readability, prevent unintended changes, and make updates easier.

? QUESTION 3 - In Java, what keyword (command) is needed to declare a constant?

The final keyword to declare a constant in Java.

? QUESTION 4 - What is the naming case convention difference between naming variables and naming constants?

Variables use camelCase (e.g., myVariable), while constants are UPPER_CASE_WITH_UNDERSCORES (e.g., MAX_VALUE).

? QUESTION 5 - In Java, what happens if you try to modify the value stored in a constant?

Trying to modify a constant result in a compilation error because its value is immutable.

? QUESTION 6 - What is the difference between a while loop and a do while loop?

A while loop checks the condition first and may not run, while a do-while loop runs **at least once** before checking the condition.