# Assignment 2

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**Replit:** [main.py - Assignment 2 - Replit]

Write a program that allows the user to navigate the lines of text in a file. The program should prompt the user for a filename and input the lines of text into a list. The program then enters a loop in which it prints the number of lines in the file and prompts the user for a line number. Actual line numbers range from 1 to the number of lines in the file. If the input is the word “exit”, the program quits (think of this as a **termination condition**, where have we seen that term before?). Otherwise, the program prints the line associated with that number, and then asks for another line number.

The program should handle invalid inputs by outputting an error. There are two error conditions, one error message should be output if the input is not an integer or the word exit, another error message should be output if the input number is not in the expected range of line numbers. You can check if a string variable x is a valid integer using the function x.isdigit() which returns true if x is a valid integer.

1. Load file into program (1%)
2. Process file into list of lines and prompt user for input (2%)
3. Output corresponding line (2%)
4. Error cases (3%)
5. Exit case (2%)

# Python Code

```
#Load file into program (1%)
#We are going to work with the assignment.txt file as an example
file = input("Enter the File Name with .txt at the end: ")
#Process file into list of lines and prompt user for input (2%)
with open(file,'r') as f:
  list_lines = f.readlines()
  nlines = len(list_lines)

while True:
  print(f"The {file} file has {nlines} lines.")
  user = input("Enter a line number or 'exit' to end the program: ")

  #Exit case (2%)
  str = 'exit'
  if user == str:
    print("The program has been successfully exited.")
    break

  #Error cases (3%)
  if not user.isdigit():
    print("Invalid Input.")
    continue
  integer = int(user)
  if integer < 1 or integer > nlines:
    print(f"Error Case: Enter a number between 1 and {nlines}.")
    continue

  #Output corresponding line (2%)
  print(f"Corresponding line {integer}")
```

As a result of running the code in Replit, we get the following results: