Files – Data that stays around

## Twenty questions Class Project Progress – Iteration 6

It's a marathon (short 😊), not a sprint.

Iteration 6: Ask player if they want another game – play multiple times

## Notes database do / Redo / Review / Extend

Do or review our Notes "database" from class. If you like, use your own data.

Source files: exercises/files/notes/notes\_1.py, notes\_2.py, …

## File Search

It is often useful to search a file, especially a text file, for strings. In this exercise, please write a program **string\_search.py** to search a file and list the lines that contain a given string. Note you might want to use the notes.py developed in the Notes Database exercise above as a basis or beginning file. If so, don't forget to "Save As" to a new file name / folder before making any changes or additions.

Features:

### Loop over searches

### Prompt user for file path.

### Prompt user for search string.

### Print file lines containing search string

Sample Output:

= RESTART: C:/Users/raysm/workspace/python/IntroductionToProgramming/presentation/Class\_5\_Files/homework/solutions/file\_search.py

Enter File Name [REQUIRED]:file\_search.py

Enter search string[REQUIRED]:while

9: while True:

Enter File Name [file\_search.py]:

Enter search string[while]:if

11: if file\_name == "":

13: if file\_name == "REQUIRED":

18: if search\_string == "":

20: if search\_string == "REQUIRED": # What if we want to search

28: if line.find(search\_string) > -1:

Enter File Name [file\_search.py]:../../../../exercises/files/read\_file\_try.py

Enter search string[if]:try

1: # read\_file\_try.py 15Oct2018

4: with try/except to catch and report errors

8: try:

Enter File Name [../../../../exercises/files/read\_file\_try.py]:

1. **File Search Enhancements**

In this exercise, please write a program **string\_search\_2.py** adding features to the previous program. You might want to write and test each of the following features independently,

e.g., string\_search\_2a.py, string\_search\_2b.py,…

Additional Features:

### Search for multiple files using standard file pattern "globing" e.g., string\*.py

### Support regular expression pattern matching, e.g. if|while|for to list lines containing "if" or "while" or "for".

### Highlight all matched strings in each line.

### Support command line arguments for file name and search string:

python -e 'string\_search\_2.py --file\_name=file\_name –pattern=search\_pattern