main( )

↓

Search UI

↳ Handler

Search Eng

incoming handler

Webpage

Print Handler

Page Parser

Quit Handler

Combine

Diff Handler

MdParser   TxTparser

Or Handler

And Combine

And Handler

Or Combine

Diff Combine

Outgoing Handler

Q1) Why do we have an abstract PageParser class, and why do we have a pure virtual parse function inside the PageParser class?

The PageParser class serves as a way for the program to create a default template of parsers and then have the function be called in the object that is inputted. So when you have mdparsertest3.cpp declare an mdparser called mdp, you will automatically because of the virtual function have that object's version of parse and display-text called. Let's us not initialize the functions and build them later. So we can create parsers of more formats and still have them function with the same functions.

Q2) Why does the Handler class have a pure virtual process function?

A pure virtual function in Handler prevents Handler from being initialized and Handler won't have to write any implementation of process. That responsibility is entirely on the derived classes. They have to provide an implementation of process and their implementation will automatically be called based on object type.

Q3) What are the sequence call functions that occur from an And starting from SearchUI:run() until the results are computed and displayed.

SearchUI:run()

SearchEng

Handler::cmd

Cmd::And

Combine

Combine::And

SearchEng::display-page