1. Why do we have an abstract `PageParser` class, and why do we have a pure virtual `parse` function inside the `PageParser` class?

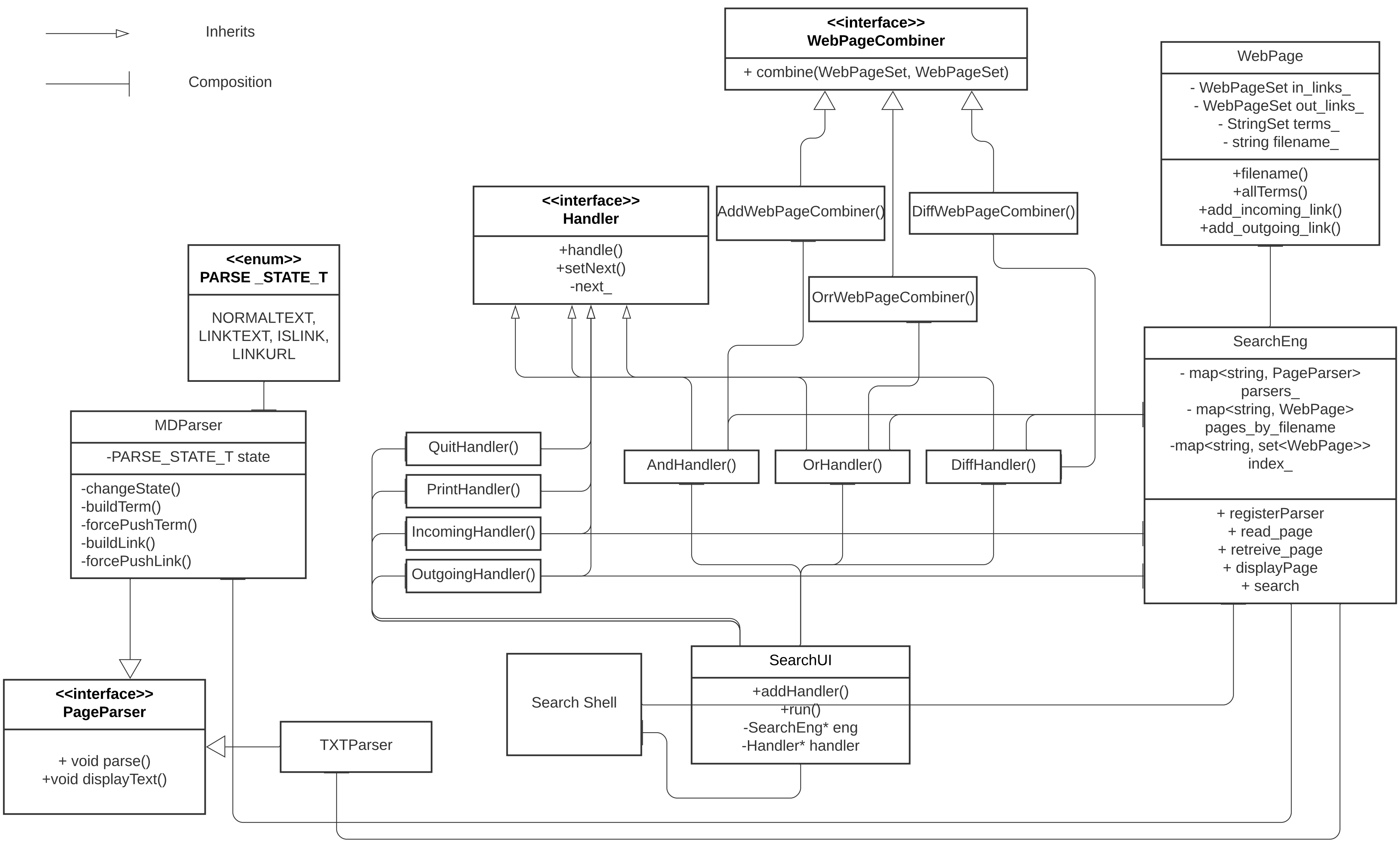
   PageParser being abstract allows for parser classes like MDParser and TXTParser to be defined for parsing their respective files in a specific way based on syntax. parse() must be a pure virtual function because it must be overridden to fit the requirements for parsing different file types.

2. Why does the `Handler` class have a pure virtual `process` function?

   Based on the class extending Handler, process() must be defined differently based on what each Handler is meant to do and return as a different output

3. Consider the class hierarchy/organization and list the the sequence of class function calls (i.e. who calls who) that will result from an `AND` query (e.g. `AND term1 term2`), starting from the `SearchUI::run()` until the results are computed and displayed

   ```
   SearchUI::run()

   QuitHandler::handle();

   PrintHandler::handle();

   AndHandler::handle();

   AndHandler::process();

   SearchEng::search();

   AndWebPageCombiner::combine();

   displayHits();
   ```


Inherits
Composition
<<interface>>
WebPageCombiner
+ combine(WebPageSet, WebPageSet)
WebPage
- WebPageSet in_links_
- WebPageSet out_links_
- StringSet terms_
- string filename_
+filename()
+allTerms()
+add_incoming_link()
+add_outgoing_link()
<<interface>>
Handler
+handle()
+setNext()
-next_
AddWebPageCombiner()
DiffWebPageCombiner()
OrrWebPageCombiner()
<<enum>>
PARSE _STATE_T
NORMALTEXT, LINKTEXT, ISLINK, LINKURL
MDParser
-PARSE_STATE_T state
-changeState()
-buildTerm()
-forcePushTerm()
-buildLink()
-forcePushLink()
QuitHandler()
PrintHandler()
IncomingHandler()
OutgoingHandler()
AndHandler()
OrHandler()
DiffHandler()
SearchEng
- map<string, PageParser> parsers_
- map<string, WebPage> pages_by_filename
-map<string, set<WebPage>> index_
+ registerParser
+ read_page
+ retreive_page
+ displayPage
+ search
<<interface>>
PageParser
+ void parse()
+void displayText()
TXTParser
Search Shell
SearchUI
+addHandler()
+run()
-SearchEng* eng
-Handler* handler