20.4 Program 2b AuthoringAssistant and AuthDriver

Objectives

* Convert a static program into a non-static class and a driver

Background reading

ZyBooks Chapter 7

Program

Write a Java program that separates a given program template, AuthoringAssistant.java, into a standalone AuthoringAssistant non-static class and a driver class (client program). This conversion demonstrates how most classes are coded: without a main() or any other "static" methods.

Task 1

* Download the template AuthoringAssistant.java.
* Create a new file, AuthDriver.java and move the main() method from the AuthoringAssitant class into it.

Task 2

* Remove all static keywords from AuthoringAssistant. This will enable us to make an instance of this class in the driver program.
* In AuthDriver, instantiate an AuthoringAssistant object for a reference called "auth". This statement requires the use of the keyword new.
* Add the object reference "auth" to method calls, which will resolve the errors in AuthDriver. These statements require the "dot operator".

Task 3

Instead of passing the user's input string to each method, we want to have a class member variable to hold this string.

* Add a member string String usrStr. The scope of this variable is the entire class.
* Add a setInputString(String s) method to AuthoringAssistant.
* Remove usrStr from any method parameter list in which it appears.

Task 4

Finish AuthDriver class.

* Call setInputString() passing in the string the user enters, so that we initialize the newly created object's member variable usrStr.
* Remove the user string argument from method calls

Final steps

* Any errors left? If so, fix them! Then run AuthDriver. It is ready when the program performs exactly like the template AuthoringAssistant class did before any edits were made.
* Upload both program and submit to run tests.