APCS – Mr. Ascione
Searching Assignment

Spec: In this project we will be analyzing and comparing the efficiency of Sequential Search and Binary Search algorithms. To do this we will use 2 different data files… one with 9466 data elements, and another with a cool million. This will help us to compare a moderately large data set vs a really large data set.

You will need the following files:

searchTest1.txt (data file)
bigOzunga.txt (data file)
APSearches.java (Sequential Search and Binary Search methods as per APCS spec)
Result.java

Traditionally, we can only return one value from a method… but here we want more… what to do? Why not create a Result object with each piece of data we wish to pass back to our client. The result class is virtually complete… you just need to complete the toString( ) so that it will give you a neat looking result… preferably in a table as below.

Lastly, you will need a client… I might let you borrow mine ☺

Data	Found/Not Found	Index Found At	Iterations – Linear	Iterations - Binary
4732				
4733				
2				
9465				
9466				
10000				

4) Do the same thing for data file: **bigOzungaList.txt** and use the following Test Cases:

Data	Found/Not Found	Index Found At	Iterations – Linear	Iterations - Binary
-2147471941				
2147377475				
45745415				
1078053081				
2147481604				

Copy and paste the test cases from your output to your file and comment it out at the bottom of your source code file. Copy all of your code plus the data files to a folder called ‘Searching’ and paste it to your student folder on the network.