

Northern Michigan University  
(Marquette, Michigan, USA)  
CS 122-01-12F  
Computer Science II

Program 3

Due: Monday 8 October 2012 10:00 A.M. EDT

Create a directory called “PG3” at the top level of your CS122-01-12F folder. Put all the files pertaining to this assignment in PG3. Place a file called “DONE” in this folder when you have completed this project.

This project pertains to a crude database stored in a file. Each record is 30 bytes long; the first 20 bytes represent a student's name; the last 10 are a student's telephone number. The names will be stored in ASCII (i.e. alphabetical) order. There will be no duplicate names in the database.

Your program should ask the user for a filename of a database, and then it should ask for a name.

Your program should then search the database for that name. If that name exists, your program should print out the telephone number. If that name does not exist, your program should print out the names that the input name would have fallen between.

Whether the name is present or absent, your program should print out the number of records it had to read before finding the giving name (or realizing that it wasn't there).

And, of course, your program should use Binary Search!

You should divide your program into appropriate methods, but the details of this are up to you.

Call this program “PhoneNumber.java”.