

PROGRAMMING ASSIGNMENT 3

For this programming assignment, you're to implement a phonebook lookup menu using the basic C++ programming constructs as discussed in class. The program runs forever until user hits 'Q' to quit. It starts by read in a phonebook line by line; each line has two entries: a name and a phone number. Then it prints the menu and waits for user response. The lookup menu shall be able to respond to two types of searches: one is to search for all the phone numbers associated with an initial letter; the other is to search for all the names associated with a phone number.

An skeleton implementation file called `phonebook_skeleton.cpp` with sample test code has been provided to you. A sample input file called `phonenum.txt` is also attached. Your task is to implement the functions according to the pre/post specification requirements. For example, when the program runs:

```
Enter 1 to look up names starting with a certain letter
      2 to look up a number
      3 to quit
```

```
1
```

```
Enter initial:C
```

```
Entries with that first initial are:
```

```
Chewie 432-0094
```

```
Chavo 932-8002
```

```
Conan 537-7731
```

```
Enter 1 to look up names starting with a certain letter
      2 to look up a number
      3 to quit
```

```
2
```

```
Enter number as 7 digits:6945555
```

```
Names that matched are:
```

```
Ernie
```

```
Enter 1 to look up names starting with a certain letter
      2 to look up a number
      3 to quit
```

```
3
```

```
Thank you!
```

Turn in instruction:

Save your source file as `username.hw3.cpp`, where `username` is your netid. Submit your source file, i.e., `username.hw3.cpp`, on CLEo, after you fully test it. Note that you don't need to turn in your binary code (i.e., the executable file).