

CASE PROBLEM:

Telephone Directory - DATABASE

Write a program that will store and update a small telephone directory in a **database**. Print the original directory. Then make some insertions and deletions and print the final directory. Use any format for input and output you desire. For example, the header and the elements may be stored as follows.

| Information | | |
|---------------|-------------|-----------|
| Name | Address | Telephone |
| Abel, J. G. | 110 Oakleaf | 236-4010 |
| Baker, Sue | 409 Sunset | 645-8978 |
| Carter, L. H. | 17 Bernary | 567-8766 |
| Minte, Al | 204 Pine | 356-2453 |
| Point, M. R. | 1 Market | 212-9841 |
| Sands, T. H. | 671 First | 734-7261 |
| Lang, Al | 311 Moss | 716-1111 |

To solve the problem, complete the step that follow.

- Input an initial list. Each record should contain:
name(last, first, middle)
street address
phone number
- Produce an initial list in alphabetical order. Allow one line in each entry for name, street address, and phone number. Include the appropriate headings.
- Input update records.
code('I' for insert, 'D' for delete)
name(last, first, middle)
street address
phone number

Each record represents a change. Insert the entries in alphabetical order by last name.

- Produce a list after all update records have been processed in alphabetical order. Allow one line in each entry for name, street address, and phone number. Include the appropriate headings.