We'll use the codes `i` (insert), `s` (search), `u` (update), `p` (print), and `q` (quit) to represent these operations. A session with the program might look like this:

```
Enter operation code: i
Enter part number: 528
Enter part name: Disk drive
Enter quantity on hand: 10

Enter operation code: s
Enter part number: 528
Part name: Disk drive
Quantity on hand: 10

Enter operation code: s
Enter part number: 914
Part not found.

Enter operation code: i
Enter part number: 914
Enter part name: Printer cable
Enter quantity on hand: 5

Enter operation code: u
Enter part number: 528
Enter change in quantity on hand: -2

Enter operation code: s
Enter part number: 528
Part name: Disk drive
Quantity on hand: 8

Enter operation code: p
Part Number   Part Name                  Quantity on Hand
    528       Disk drive                         8
    914       Printer cable                      5

Enter operation code: q
```

The program will store information about each part in a structure. We'll limit the size of the database to 100 parts, making it possible to store the structures in an array, which I'll call `inventory`. (If this limit proves to be too small, we can always change it later.) To keep track of the number of parts currently stored in the array, we'll use a variable named `num_parts`.

Since this program is menu-driven, it's fairly easy to sketch the main loop:

```
for (;;) {
  prompt user to enter operation code;
  read code;
  switch (code) {
    case 'i': perform insert operation; break;
    case 's': perform search operation; break;
    case 'u': perform update operation; break;
    case 'p': perform print operation; break;
```