```c
#include<stdio.h>
void main()
{
  int data[100],i, n;
  for(i=0;i<100;i++)
    scanf("%d",&data[i]);

  printf("Enter a number to look for in the array:\n");
  scanf("%d",&n);


  first = 0;
  last = 99;
  middle = (first+last)/2;

  while (first <= last) {
    if (data[middle] < n)
      first = middle + 1;
    else if (data[middle] == n) {
      printf("%d found at location %d.\n", search, middle+1);
      break;
    }
    else
      last = middle - 1;

    middle = (first + last)/2;
  }
  if (first > last)
    printf("Not found! %d is not present in the list.\n", n);

}
```

To look for a name in a list of names and phone numbers the program has been modified as follows:

```c
#include<stdio.h>
void main()
{
  struct
  {
    char name[50];
    int phone;
  } data[100], smallest;
  int i, j, smallIndex;

  char n[50];
  for(i=0;i<100;i++)
    scanf("%s%d",data[i].name, &data[i].phone);

  printf("Enter a name to look for in the array:\n");
```

```c
    scanf("%s",n);

// sort the list
    for(i=0;i<100; i++)
    {
      smallest=data[i];
      smallIndex = i;
      for(j=i+1;j<100;j++)
        if( strcmp( data[j], smallest) < 0 )
        {
          smallest=data[j];
          smallIndex = j;
        }
      data[smallIndex] = data[i];
      data[i] = smallest;
    }

// Run binary search
    first = 0;
    last = 99;
    middle = (first+last)/2;

    while (first <= last) {
      if (strcmp( data[middle].name, n) < 0)
        first = middle + 1;
      else if (strcmp(data[middle].name, n) == 0) {
        printf("%d found at location %d.\n", search, middle+1);
        break;
      }
      else
        last = middle - 1;

      middle = (first + last)/2;
    }
    if (first > last)
      printf("Not found! %s is not present in the list.\n", n);

}
```