Program 1 – In Class Demonstration

Write a program that uses an int pointer called hand to manipulate 3 variables: book, pencil, paper. You will use the hand pointer to change the value of book, pencil, or paper based on USER INPUT. The value stored in each variable represents a location:

```c
//GLOBAL VARIABLES
const int FLOOR = 0;
const int CHAIR = 1;
const int DESK = 2;
```

For example, if hand is pointing to pencil, you could change the location of pencil using:

```c
*hand = FLOOR;
```

Use the following functions:

```c
//ask the user which object to grab, then point hand to that object
void grab(int* hand, int &book, int &pencil, int & paper);

//ask the user where they would like to move the object
void move(int* hand);

//show the location of each object & contents of hand
void showAll(int* hand, int &book, int &pencil, int & paper);

//helper function for showAll, shows the location of a single object.
void show(int object);
```

The whole program should loop and give the user the following options:

1. Show All
2. Grab Object
3. Move Object
4. Exit Program

This is not an easy assignment, so I will be walking through it in class.
If you miss lab please come see me or one of your fellow students for help.