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C++ II - Smart Home Project, Outline

The smart home project will be a simple program with a user interface that allows the user to interact with “devices” around their home. This smart home will consist of the following devices:

1. Main Interface - Base Class
 - a. Methods
 - i. On();
 - ii. Off();
2. Device Classes all inheriting from the base class
 - a. **Lights** (May have some room specific lights to show multiple inheritance)
 - i. Methods (Already have on/off from the main class)
 1. Brightness(); - controlling the brightness level of the lights (1-5) setting
 - b. **Thermostats**
 - i. Methods
 1. getTemp();
 2. setTemp();- Adjust temperature in the house (user will manually enter a number to set it to.
 3. toggleHVAC(); - toggles between AC and Heat
 4. getHVAC();
 5. getEveningTemp();
 6. setEveningTemp();
 7. getMorningTemp();
 8. setMorningTemp();
 - c. **Security System** -
 - i. Methods
 1. alarmOn(); - Arms the alarm
 2. setMotionSettings(); - sets the motion settings (1-5 scale, default set to 3)
 3. getMotionSettings(); - gets the current motion settings
 4. **MotionTest()** - the method I will use as my input/output file to print the test date and times to ensure that the system is working properly.
 - d. Security Lights - Inheriting from Lights and Security System to show mult inheritance. ? Maybe/maybe not

Notes - 4/12

//I have created the header files with my desired methods. I have a pointer, and a method picked out for my I/O requirement. **Need to create a template still, where would be a good place**

for one? Probably in interface. Next steps are to create the CPP files and begin creating/testing my methods.