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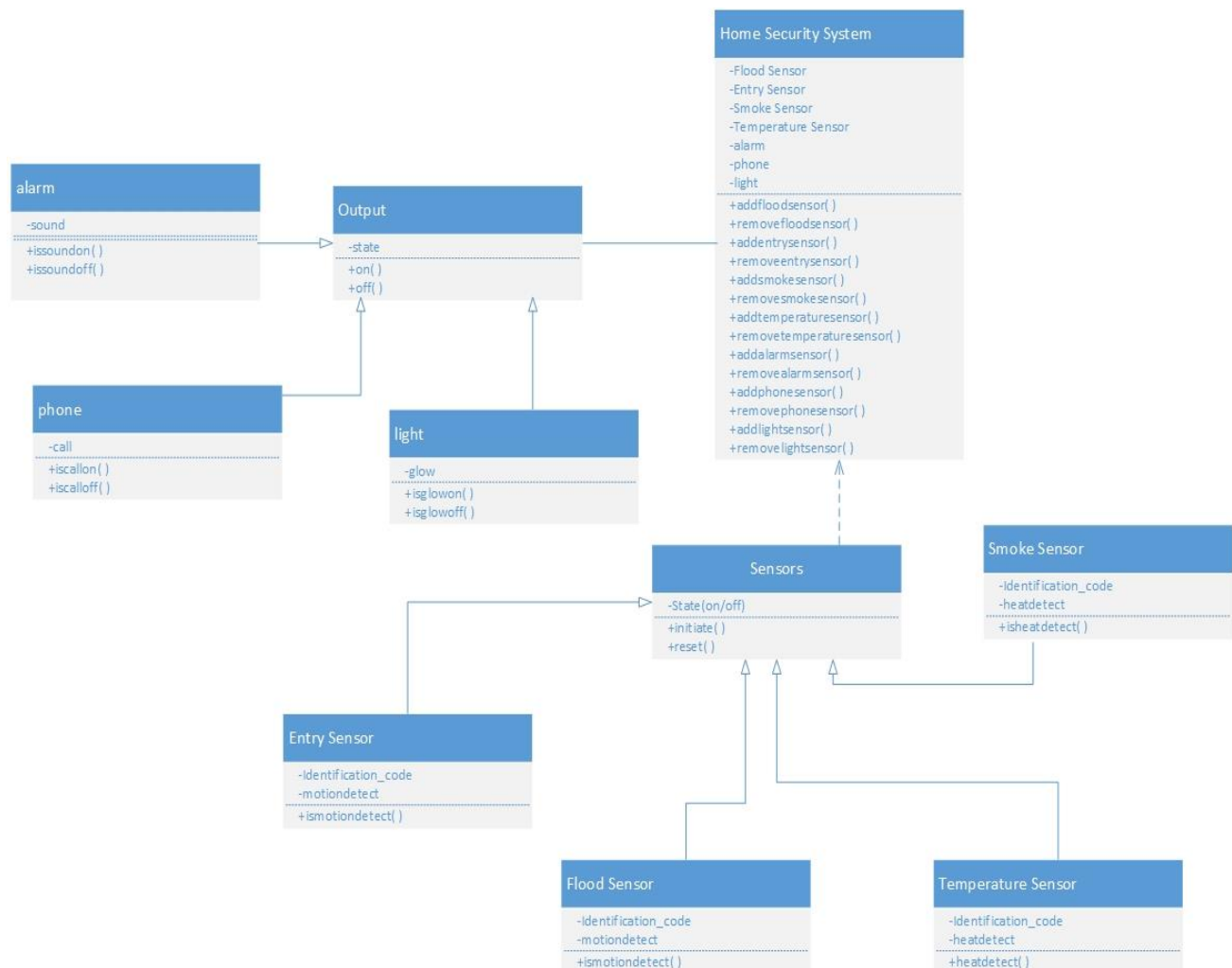
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ADVANCED SOFTWARE ENGINEERING

LAB 1 REPORT

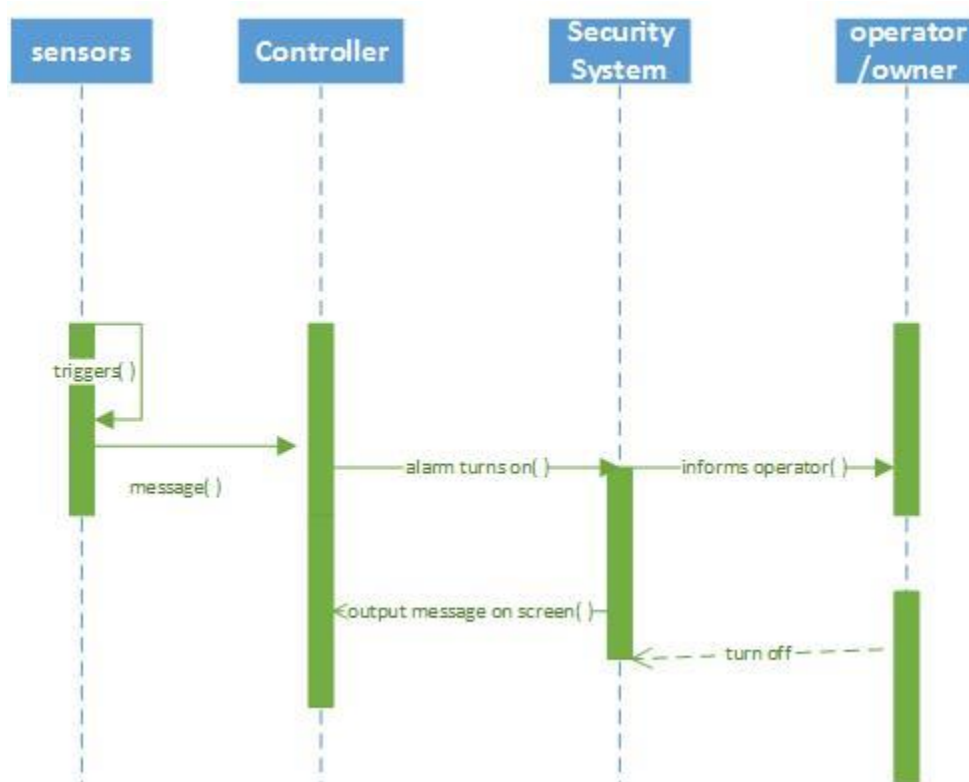
UML CLASS DIAGRAM AND SEQUENCE DIAGRAM

UML Class Diagram



In the above UML class diagram, it can be observed that there are 4 types of sensors namely entry sensor, flood sensor, temperature sensor and smoke sensor and they are assumed to be inherited from a parent sensor. Each sensor has got a unique identification code. Sensor can be in either on/off state and the temperature and smoke sensor are capable of detecting heat, and the entry and flood sensor are capable of detecting motion. Sensor is connected to the central home security system. We have detectors namely alarm (siren), phone (call is made to the operator) whenever the system is triggered.

UML Sequence diagram



In the above UML sequence diagram, we have four objects namely sensors, controller, security system and operator/owner. Whenever the sensors get triggered by itself, an alert message is sent to the controller and the alarm turn on and an output message is displayed on the screen. Each step happen in a sequence and the home security system informs the operator and the operator turns off the alarm.

