1. Consider the following usage scenario for SafeHome: 8+12=20

SafeHome is a microprocessor-based home security system that would protect against and/or recognize a variety of undesirable "situations" such as illegal entry, fire, flooding, and others. The system will consist of smoke detectors, window and door sensors, motion detectors, an alarm, an event (a sensor has been activated), a control panel, a display, telephone numbers, a telephone call, and so on. The list of services might include setting the alarm, monitoring the sensors, dialling the phone, programming the control panel, reading the display.

Prepare the Data-Based Models (Noun Identification, Data-Object Relation, ER Diagram and Schema Tables) and Class-Based Models (General Classification, Discard Classes, Coad and Yourdon's Six Selection Criteria, Noun-Verb Affiliation of Classes, Class Attributes and Methods, UML Class Diagrams) for Safehome.