UML Domain Model

The following diagram shows key objects in the problem domain as well as other objects they are associated with.

A diagram of a vehicle

Description automatically generated

The key entities in this domain model are the Chatbot, the buyer, the machine learning database, and employees for the car company like the salesman, finance specialist, and the vehicle service provider. The machine learning database is required so that the chatbot can process real language and determine which task a user is attempting to accomplish. It is important to separate car details from the car database to prevent data overload and slow runtimes for the chatbot. Additionally, it is important to note that the car database is constantly being updated as other cars are being bought and sold.

The chatbot not only needs to be able to take language input and interpret it into a specific task, but also use other tools down the line such as an emailing tool and scheduling tool to coordinate with humans in the system.