P1U4 Documentation

In this documentation, I will elaborate some design thinking for this P1U4 Project.

This lab familiarizes me with the concept of socket communication. The main part that is added is the server and client package and related methods in operations defined in each side of client or server.

First of all, in the DefaultServerSocket and DefaultClientSocket class, I respectively have three main operations: upload a file, configure a car or quit. Each of these methods is dealt with in a similar way in these two classes. When one object is sent from one side, the other side is meant to read it, otherwise the error information would be prompted. In the methods of uploading a file, I also deal with the case that the file name is ended not with a valid suffix (in my program valid suffixes are .txt and .properties) as well as the case that the filename entered does not exist. In the configuring method, the user would be prompted all the available model names on the server side and makes choices of the options on the selected model. In the Quit method, the client can choose to quit in which case the server will not quit and could wait for the client to start the connection again.

Secondly, the AutoServer interface is used to be implemented both by the BuilAuto and BuildCarModelOptions class which would add some extensibility to the whole project.

Finally, all the class related with the client and server are derived from the default socket class given by the professor which accords with the instruction on the write-up.