# CS 255 Model Application Short Paper

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## Process Model Application

A process model defines the flow of data and information through the system modeled. In the case of DriverPass, this may represent users requests for study material, scheduling details, and driver schedules. Specifically, for a user ready to schedule an appointment with a driver, the user may supply a requested date and location, and drivers in that location will be parsed for who’s available on that date before being passed back to the user to select from, or having one selected on the admin’s side and assigned to the user that way. Either way, the data passed is schedule details from the user, and an assigned driver from the service.

In the DriverPass scenario, data transferrance is not a big part of the system. Of course, all systems exist to process something, but the process model would be rather simple. A user registers for the service, studies the material, tests with a driver, and graduates. There may be branches for resetting one’s password or rescheduling test appointments, but overall the line is fairly straightforward.

## Object Model Application

An object model defines how each “object” in the system relates to each other, how they interact, and what functions are available to each object. For instance, there may be a user superclass that has everything any given user needs: a unique ID, a password, contact information, optional picture, etc. with respective get/set functions. From there, two derived objects may be a user/customer with assigned study material and driver appointments, and a separate user/driver with an array of assigned customer appointments.

Again, the model need not be overly complicated. There may be a database of study material, a system for appointment scheduling, and a few mechanisms for account security, but overall there aren’t too many pieces required for the system to function.

## Process and Object Model Comparison

For DriverPass, the advantages of process modeling are primarily that it allows the system developers to see where data moves. Seeing the moving data helps developers make decisions about optimizing compression and processing, as well as securing potential vulnerabilities.

Object modeling, on the other hand, is generally more useful for the DriverPass project, as I expect the class structure to be slightly more complicated, and therefore more important to the development phase.