# CS 255 Model Application Short Paper

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## Process Model Application

With a process model, someone can observe the entire process of an already-existing system or demonstrates how a workflow could be handled when establishing a new system. Our customer DriverPass has to switch from their present physical business system to a virtual one. There are several methods to add or remove elements that could be necessary to finish the desired activity to deconstruct the workflow using their present system and make it a functional virtual system.

There are several things to consider while utilizing a process approach to provide an appropriate solution for our client. By carefully assessing the current system for any inefficiencies, clear guidelines for how the process should function in the new system may be created. To better serve their clients, this can save pointless procedures, enable process automation and boost productivity. Following evaluation, roles and expectations for every activity must be precisely specified. This gives system users a notion of when they may anticipate receiving the final product and gives system designers a clear understanding of how long each activity should take during the design process.

The amount of "wiggle room" that the system may have should be considered while creating a process model for a company like DriverPass. When they presented to our team, DriverPass was clearly still in its early stages, with only ten cars available and one teacher per vehicle. Since the implementation of their virtual system should allow for any company expansion, scalability should be considered while developing a process model. As their company expands, they should take into account how easily their system may be modified to meet evolving needs. This may need creating a scalable foundation in addition to making procedural adjustments and expansions, such as modifying the number of drivers and vehicles on the road, as well as developing a mechanism to handle these expected shifts. This would enable their system to be adaptable enough to handle their growing company, in addition to the process model supporting anticipated changes in exponential development.

## Object Model Application

Using an object model, designers may draw attention to the key elements and relationships among each system component. Object models, which depict the connections between an object or group of objects, place a lot of emphasis on these interactions. Dividing an object model into classes, or categories, is a common method of demonstrating these connections. It shows how each class that an object represents should have its functionality with other classes (or objects) defined throughout the design process.

By dissecting these links into general interactions, the system's intended functionality is readily stated. Our client, DriverPass, wants to provide their clients the choice to reserve particular parts of their driving lessons by purchasing a certain package. They should be able to arrange their lessons with a certain instructor and vehicle at a particular time. Since that component is crucial, it is essential that we show in our object model how we will accomplish our client's demands for our system. It is expected that the object model will have a specific class for scheduling these in-person driving instruction sessions, together with information on how that reservation relates to other scheduling choices, such postponing a session or modifying the time.

Every object property should be accurately set before the development phase in order to further dissect the characteristics we want to see in our object model. A user should be able to change their login criteria to some extent. All user activities, such as entering an email, user name and selecting a strong password throughout the account creation process, ought to be modeled by the object model. It should also describe the options the consumer has when selecting a program, looking at materials and analyzing progress.

## Process and Object Model Comparison

For both process and object models, there are several ways to represent a system's functionality or workflow. Fundamentally, each model should describe the overall functionality of the system in a manner that developers and clients may easily comprehend how it should be used. Both models ought to be able to evaluate the current system and identify features that work more effective when a virtual system is implemented. When making these models public, it is easy to see exactly how the suggested new system will solve any inefficiencies in the present system, possibly lowering expenses and increasing the effectiveness of the DriverPass process.

A process model is quite good at explaining a system's general workflow, but it is far less helpful when it comes to functional specifics than an object model. Process models can help make it easier to identify the workflow of the system, however, they fail to explain to developers how each object and class should cooperate to ensure the success of these procedures. Object models may be used to show how a system functions and to provide light on how it handles data and object behaviors.

As the business expands, developers can handle any additional actions or objects that may need to be introduced with the help of an extension-friendly object model. The time required to develop the system to accommodate the company's anticipated or unforeseen growth is a significant drawback of object modeling. If the system's development is based only on conjecture that the firm will need more objects or classes soon to satisfy their expanding list of needs, it can take longer than expected.

As our customer DriverPass requires, it is often possible to properly sketch out the architecture for a new system using both process and object models. They both have a number of drawbacks, they also clearly illustrate what our customer may anticipate from the newly constructed system. Our customers have the final word over how much information they want to know about the system before it is constructed. I believe that both models can offer lots of information that accurately show the functionality and workflow of the system, so our customers may benefit from using them.

For me, a process model is most likely the greatest choice as it illustrates the connections and general operation of the system. They can learn how different approaches might be used to accomplish different tasks.

## References

Alan Dennis, Barbara Haley Wixom & David Tegarden (2012). Systems Analysis and Design with UML, (4th ed.). ohn Wiley & Sons, Inc.