# CS 255 Model Application Short Paper

Jose Soqui

Jose.soqui@snhu.edu

Southern New Hampshire University

## Process Model Application

You can use the process model you created to provide a “big picture” view of your initiative and identify backlog items needed to support the process. This would involve the UML for something like the route of interaction with a user and the DriverPass system, attempting to gain access to content or take a practice exam. A process modeling approach can be applied to the DriverPass project by analysis of the steps involved in the process of creating and managing driver profiles, issuing passes, and monitoring pass usage. The process model can be used to define the flow of activities and information between the different actors in the system, such as drivers, pass issuers, and administrators.

## Object Model Application

Using the object model for DriverPass would entail the use of objects within classes to communicate the relationship and actions between them. The arrangement illustrates the sequence of assembly for objects within a system. This could be the exams in place or the practice questions and the respective answers when being displayed. This one would dictate how distinct components relate to one another in said system. A classification stemming from properties and functions is established by this hierarchy's construction. This could be the questions on the application to the videos used to determine what content should be delivered and when. A derived class inherits the properties of a parent class. Through hierarchy, a class can be composed of inter-related sub-classes, that can have their sub-classes called upon. This would insinuate there is a communication between the processes of responding to the user’s input.

## Process and Object Model Comparison

A process approach provides a visual representation of the flow of activities and information in the system. This can be specifically useful for understanding how the system functions, and how it can be optimized to improve its efficiency. This also aids in streamlining the process and does so without many errors in theory. This, however, is why process models can be complex and difficult to create, especially for large and complex systems. Also, the process models may not capture all the problems which can lead to oversimplification or mistakes. The process method also lacks the adaptability aspect when it comes to updating. An object modeling approach can provide an understanding of the relationship between objects and systems. Additionally, object models can be used to recognize commonalities and variations among various objects, which allows reusability and flexibility. Furthermore, object models can be translated into code, which expedites the implementation process. However, object models can be complex and difficult to create, especially for large and complex systems. Additionally, object models may not capture all the behaviors and interactions of the objects, which can lead to oversimplification or misinterpretation. Furthermore, object models may become outdated as the system evolves, which can make then less useful over time.

## References

Judy Nduati. (n.d.). *The basics of the Object Model*. Section. Retrieved April 2, 2023, from https://www.section.io/engineering-education/basics-of-the-object-model/#:~:text=An%20object%20model%20uses%20various,%2C%20and%20object%2Doriented%20design.

*What is a Software Process Model? top 7 models explained*. Educative. (n.d.). Retrieved April 2, 2023, from https://www.educative.io/blog/software-process-model-types?aid=5082902844932096&hsa\_acc=5451446008&hsa\_cam=8090938743&hsa\_grp=82569843726&hsa\_ad=396819070286&hsa\_src=g&hsa\_tgt=aud-475527062782%3Adsa-837938538428&hsa\_kw=&hsa\_mt=b&hsa\_net=adwords&hsa\_ver=3