# CS 255 Model Application Short Paper

Sergio Mateos

Sergio

Southern New Hampshire University

## Process Model Application

A process model application is the documentation of certain activity to learn and check how it works within the organization. If the organization knows and understands how the activity will benefit the company or organization, can create opportunities to grow, increase quality, reduce cost, and will maximize the satisfaction of the customers.

In our case, Driving Pass is a website that would like to offer driving classes to their customer to prevent any failure on their test in the DMV by proving online lessons, tests, and scheduled driving tests. The process model application will help us to understand the function and develop a functional process to design the DrivingPass application. The process model application intends to reduce the complexity and reduce the amount of time, and cost. This is available by breaking down the application into requirements, functions, behavior, classes, and teams to reduce errors.

The process modeling application will reduce the chance of failure from the team and reduce the time and cost. If there is a problem in the project, the process model application has the capability to go back and fix the error without compromising the entire project, also if the customer decides to change something, the organization of the process model application allows changes and modifications from the customer with a certain amount of time. “Process models’ applications are usually set down through different graphing methods and are normally utilized to examine and represent a range of activities that occur periodically and on a regular basis” (Breakout, 2022) the software development website Breakout, points out how the development of the activity is examined to find the best way to have an efficient process which led to a successful result.

The application development would be described as the DrivingPass application would be a multi-platform application to attract a bigger audience and provide more services to the students who need help with their DMV tests. DrivingPass application will consist of three different packages and each of them will consist of unique qualities. The user will need to select a package and create an account with a unique password to prevent security issues. Since security is a priority, there would be different authentications process. Once the user can access to DrivingPass, the users are going to take lessons and download content to study anywhere they at. Once the user reaches a certain level, there are going to be able to schedule a driving test from the app to put on hand practice.

## Object Model Application

Object model application is the visualization of elements in terms of objects in a software application. Before starting to develop or programming, the object model is used to create a structure of classes, objects, function, and their interaction with each other. The Object Model creates a model by using object-oriented programming like inheritance and capture. Object Models help the development team to understand the structure of the application and connect them to follow the requirements of the application.

The Object Model will break down the application into different sectors to avoid complicated structures, the application can be divided on:

* User: The user will be able to register, log in, log out, download content, take tests, schedule, and cancel driving tests.
* Administrator: The administrator will be able to upload and update content, set up or cancel driving test, access customer information it is needed, and upload progress.

DrivingPass would require a class which we can call “userInfo” that will contain the user information to log in (username, password, email address, phone number), if for any reason the customer requires to reset their password, the userInfo class will inherit another class called “passwordReset” which will contain functions that allow the customer to reset their password (security questions, verification code send it to their email or phone, etc.). On the “passwordReset” the admin can send a notification to the customer to make sure it’s the customer who’s trying to set a new password. The admin will also be able to upload content for their customers on class “contenetDriving”, which would be monitored to keep the latest information from the DMV.

## Process and Object Model Comparison

Process and Object models are created to develop a more efficient process to develop an activity or in this case DrivingPass application. But even if the result leans in the same direction, they are two different things.

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| **Process Model** | **Object Model** |
| Process and data flow of a system. | Visual of the system’s classes and objects |
| You can see the project result once is finished | The object can be described as the administrator prefers |
| It’s harder to demonstrate to the client visually | Object Model uses a UML diagram to connect the functionality of the application |
| Representations of layers in the system | Object Model contains classes, objects, functions, and their interaction |
| Provide a view of how far the project is done in case the client would like to do some changes. | The object does not provide a structure of how far is done |
| Provide aspects of the program | How system various parts and operation work together |

The implementation of both processes will increase the success of the development of DrivinPass. Process and Object Models will increase the quality of the project. Also, it will reduce the time, complexity, and cost of the DrivingPass application.

## References

*Process modeling in software development*. Breakout. (n.d.). Retrieved September 27, 2022, from https://getbreakout.com/bpm/business-software-process-modeling/#:~:text=What%20Is%20a%20Process%20Model%3F%20Process%20models%20are,of%20activities%20in%20an%20application%20or%20a%20system.

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