MODULE 3 Enhancement One: Software Design and Engineering

Author: Elena Ponomareva

In the CS-465: Full Stack Development course, we used the MEAN stack to build a web application for managing travel packages. We learned the principles, methods, and techniques used in systems development. In the project, we used the Model-View-Controller (MVC) design pattern, which separates the application into three interconnected parts. MVC helps to clearly separate the different functions of the application, making the code more organized and understandable.

For the Software Engineering and Design category, I expanded the complexity of a project and transferred it to other languages. The plan is to apply my knowledge of the logistic industry and create a Python-based software application that will help manage safety and accounting information and perform basic operations such as tracking equipment, storing driver information, and preparing payroll. The Django framework uses a variation of the MVC architecture called Model-View-Template (MVT). At this point, I have completed the application logic and created the necessary templates with "styles.css" file. In the CS-465 project, we used CRUD to manage information about travel packages. In the new project, I created new models (driver, truck, trailer, load) and used different classes and functions to provide required functionality to users.

Using a selected artifact from the CS-465: Full Stack Development course for the software engineering and design category, I have demonstrated the ability to gather requirements for a new system, determine necessary functionality, and use innovative technical skills and tools to develop a software application that solves a given problem. Through code review, I have demonstrated the ability to design, develop, and deliver professional-quality oral and visual

communications that are coherent, technically sound, and appropriately adapted to specific audiences and contexts.

References

Django. (2025). *Django Documentation.* https://docs.djangoproject.com/en/5.2/

SNHU Media. (2024, May 23). *CS 499 Milestone Two Code Review Overview Approach Assistance.* https://www.youtube.com/watch?v=229TiLwyipI&ab_channel=SNHUMedia