For my second artifact, I selected the final project from IT-312: Programming for Computer Science, which involved developing a command-line dice game modeled after LCR (Left-Center-Right). This artifact was originally designed to demonstrate proficiency in control structures, modular programming, and basic data structures such as vectors. However, to better align with CS-499 outcomes, I enhanced the code to improve its modularity, encapsulation, and algorithmic clarity. Specifically, I refactored the game logic into a dedicated Game class, effectively separating concerns between game control, player actions, and utility functions. I introduced new methods such as setupPlayers, loadRules, play, and printGameState to make the program easier to maintain and extend. This enhancement not only improved the structure of the code but also supported cleaner data flow and better resource management. Additionally, I updated the use of loops and conditionals to ensure they adhered to secure coding practices and eliminated any ambiguity in logic flow. These changes elevated the artifact from a procedural implementation to an object-oriented design, showcasing deeper understanding of software engineering principles and improving the overall readability, reusability, and scalability of the program. Through this enhancement, I demonstrated my ability to apply algorithmic thinking and design patterns to refine a functioning program into a robust and maintainable solution.