In my customary approach, I strive to amalgamate Object-Oriented Programming (OOP) and Functional Programming paradigms. Within this hybrid framework, I employ objects as encapsulated entities, intercommunicating through signal exchanges. Internally, I aim to minimize state within objects, leveraging functions extensively to perform tasks with minimal side effects. Additionally, I prioritize a test-driven development methodology, conceptualizing tests as the driving force behind my design decisions.

Regrettably, for this specific project, adhering to these established practices became unfeasible. The challenge arose as the project's primary requisites centered on visual effects, an aspect challenging to encapsulate within test scenarios. Furthermore, comprehending the intricacies of this visual aspect proved elusive, exacerbated by the instructional material primarily presented in an imperative C-style despite the project utilizing C++ and OpenGL.

Lacking a foundational understanding, my attempt to modify the provided code during class sessions culminated in repeated failures. Consequently, I embarked on a solo endeavor to construct a solution from scratch. This divergent approach was met with disapproval from the instructor; however, I perceived it as the sole viable method to attain comprehension. Fortunately, within the OpenGL documentation, I discovered error logging functions, which provided a semblance of guidance. Nonetheless, the subsequent implementation adopted an imperative style due to my insufficient grasp, impeding the formulation of a more refined design strategy.

The notion of hardcoding matrices, albeit prevalent in the examples furnished, seemed overly simplistic. Yet, I endeavored to rationalize this approach based on spatial considerations, striving to achieve an acceptable rationale. Given a deeper comprehension or enhanced documentation elucidating the underlying processes within the tutorials, I am convinced that leveraging my computer science principles would have facilitated a more adept design, incorporating algorithmic optimizations.