

Project 3 Design Paradigm

When conceptualizing our prototype for Project 3, we combined the approaches of Top-Down Functional Decomposition and Object-Oriented Design. We started with a very high-level layout of all the different components we would need, constructed in a hierarchical manner, with each of these components representing an object. This approach allowed us to do several things that made the development of our prototype progress smoothly. For one, the separation of the different aspects of the project enabled us to allocate responsibilities amongst the members of our team; the brief descriptions about the attributes, methods, and role of each object gave us a rough idea of how much time that object would take to implement relative to the others, so we could split up the workload as evenly as possible. With everything laid out, we were additionally able to pick and choose the objects that we each felt we were best attuned to work on. Also, the hierarchical nature of Top-Down Functional Decomposition made the chronology of additions very apparent. We would start by creating the objects at the top of the hierarchy; these would be the most essential, skeletal elements that were not directly dependent on any of the other objects. From there, we could work our way down the hierarchy, adding the next level of objects, the dependencies of which would now be implemented and functional. In this way, our chosen design paradigm acted as the blueprint and starting point for our project and as a useful reference during its development.