

For Project 4, Team 7 used a mixture of the Bottom-Up and Sandwich Integration Strategies. Due to the project being a game composed of several levels, with each of these levels being designed by a separate member of the team, a plurality of the updates and commits made to the project were small assets developed by a specific member of the team. For the rest of the updates, a significant amount of those were comprised of parent classes and their resulting subclasses. In terms of integration, most of these updates were for or made changes to operational level components. Because the majority of updates didn't involve major design or logic changes, the team decided that it would be most prudent to use the Bottom-Up strategy for integration. The Bottom-Up strategy of integration was the best strategy for the team, as it allowed for focused testing. Meaning, this integration strategy allowed for the team to thoroughly test the operational artifacts that were updated. The team was aware that the Bottom-Up strategy had the weaknesses of testing logic artifacts last and only revealing major design faults later in the implementation. However, the use of the Unreal Engine when making this game mitigates a large portion of that risk, as the game engine handles a variety of tasks and functions, allowing for the team to focus on improving, updating, and successfully implementing operation artifacts that are key to the project's core gameplay loop, such as building the enemy AI and the design of each level.