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Class: 162

assignment3

REFLECTIONS DOCUMENT

Discovering Requirements

The requirements for this assignment were the creation of a tournament game incorporating previously designed classes. The characters will be organized into lineups and then the lineups will fight each other until one of the two players wins.

Design Description

A queue was incorporated for each player to hold the characters that are still alive. After the characters combat, the losers are sent to a loser stack for each player. Once a player has no more living characters in their queue the player loses and the other player is declared a winner.

Test Plan

Each of the classes was chosen to fight the other in lineups and the program will be observed for errors.

Test Results

Results were consistent and worked as expected. The lineup system works and the characters fight each other as required. Dead characters are corrected moved to the loser stack for each player, as designed. Because some classes have very strong attributes compared to others, it was observed that these classes always won the combat. In particular the BlueMen class was untouchable, and the ReptilePeople class nearly always unbeatable by any class except for BlueMen. As a result, a player that chooses BlueMen or ReptilePeople will almost always win the tournament.

Comments About How Design Problem Was Solved

The stack and queue containers are very useful for the design of this program. Because they only take and give data in their individual methods, both containers were well suited for the design of a situation where characters are used and discarded as they lose. The container structure also makes it easy to determine when a player has lost, as this is the condition when the player has no more of the characters in their character queue.