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Description: CS 162: Final Project: Galactic Explorer Vicis : Reflection

I have enjoyed designing and coding this final project more than any other assignment for this course. It really brought together all of the skills I have learned up til now. I really emphasized the use of object oriented programming and polymorphism in my game design. I also found the perfect balance between designing and coding with this assignment. I spend about 90% of my time designing and about 10% coding, debugging, and testing. In some previous assignments, I had reversed these numbers, and it made things much more difficult.

I began my design by conceiving of the play spaces as somewhat like a linked list and allowing the player to traverse the list while playing. One interesting feature I developed related to this is that the dynamic constructors and destructors for the entire ship are triggered by the creation of a Player object.

Another design choice I made early on was to make my inventory container an array of pointers to the space objects. It seemed fitting with my game theme, and I thought that in the future I could even add functionality of being able to access the distant spaces a player had visited through the inventory—a sort of quick travel system.

For each space, I tried to think of something interesting for the player to do that would affect the mission. At first I had considered using previous programs in each space, but found that having the actual program running wouldn't add much to the gameplay, while pretending they were happening was just as good. The exception to this is my inclusion of my Lab 5 program, with some slight modification. The output provides a little visual variety in my text based adventure.

Designing was made easier by running the majority of action in the program from the player class using polymorphism. One round of play is essentially: player moves to a space, player calls that space's description, player calls that space's special function, player selects where to move next. Once I had decided on this basic structure it was easy to proceed down in depth one step at a time, creating the individual space classes, then their particular functions.

Testing was a lot of fun for this assignment since once I was sure the classes could each be created and deleted without memory leaks, I went to play testing. Basically, I just played the game over and over meeting every ending scenario and quitting at various points of progress. I was very satisfied with the programming results of play testing and made mostly stylistic and script changes during the process.

Thanks for playing!