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2420
Assignment 01

1. What is the purpose of the project?
    a. The purpose is to learn inheritance, polymorphism, Abstract classes and to get use to program design
2. What classes are to be created and how do the interact (specifically how do they inherit from each other?)
    a. Star, planet, black hole, and floatsam. They don't inherit from each other, but from the satellite class. They will interact with each other through vectors
3. Consider that it takes my desktop (a 2 gigahertz processor) 1/10 of a second to process 1000 bodies in the sky. How long do you think it will take to process 2000 bodies? How long would it take my laptop (a 1 gigahertz processor)? Do you think there a relationship between the number of objects in the simulation and the run time? Conjecture what it might be.
    a. It would take another 1/10 of a second, 2/10 of a second for 2000 bodies.
    b. It would take another tenth of a second for the laptop. For 1000 bodies it would take 2/10 of a second.
    c. There is definitely a correlation between the number of objects and the run time. The run time decreases as the number of objects increases. It takes an increasing amount of time as each body takes up space in the memory.

4. How many hours do you expect it will take you to create the pieces of this puzzle? Make an educated guess based on your experience writing the last few programs in 1410 (or the last few programs you wrote when last you wrote some programs).

    a. It will take 15-20 hours, maybe a bit less.

5. List and describe at least three interesting (programming related) things you learned by reading the starting point code.

    a. a better way to do threads.

    b. abstract classes

    c. protected methods

6. Any other thoughts on where you will take this project that will be unique to your programming abilities and desires.

    a. I will try to do everything that I can to complete the assignment, turn it in and get a good grade. If I can do more, that would be great, but I don't think I will be able to do that.