Exercise #5
Due Friday, 10/30/2015, at 11:59pm

“Reverse” Vocabulary!

You’ve probably been introduced to several new concepts and ideas in the last couple weeks as the lectures have focused more on programming concepts. So, this week you just need to write down two or three terms or concepts introduced in class that you don’t think you understand yet. Your answers can be either specific vocabulary terms or more general ideas. We’ll use your answers to improve the class and exercises going forward.

Discussion Questions

In next week’s lecture, Brian Apgar from Zynga will be giving a talk about game development, so that’s exactly what this week’s exercise is focused on! As more and more people have gotten interested in making video games, tools have improved to the point that it can be relatively easy for someone without much technical experience to make their own game. Even so, developing larger or more complex games still presents unique and interesting challenges. The breadth of topics you’ll learn about while studying CS should help prepare you to tackle those challenges, if you choose to go down that path!

This week’s exercise questions ask you to think about what some of those specific game-related technical challenges may be and why they exist. Remember that you’re not expected to provide solutions to the problems presented– we just want to get you to answer the following questions to get you thinking about what really goes into making a modern video game!

- Most popular games have a significant multiplayer component that lets you play the game online with up to dozens of people who may be anywhere in the world. Getting multiplayer systems working smoothly is a much more difficult task than most people assume, to the point that nearly every multiplayer games employs a number of ‘tricks’ to make it seem like the players in a game are interacting and playing with each other in real time. What do you think are a couple of the challenges developers face when creating a real-time multiplayer game?

- Players expect most modern games to have gorgeous, realistic graphics. It could be argued that creating a system that can accurately render complex scenes at the desired framerate is the most significant technical challenge in games– and the one with the most room for improvement! In your opinion, what makes rendering graphics such a complex problem to solve? How is it different than other technical challenges in game development?

For take-home exercises completed in peer-led groups, each student must participate in the class discussion and write answers to each of the questions on his/her own paper to show for credit.

For take-home exercises completed on your own, turn in your work electronically using the TEACH website.