Instructor Feedback

Feedback for my Computer Science 12 Final Project KeyFinder

Your amazing work does not surprise me. I loved getting to do a deep-dive into this final project, play around with the game, and go through all of your files to see how you did this.

Although I just started teaching computer science, I'm doubtful I will see a final project as good as this one.

I'll start with your reflection piece and then I'll get into your game. You answer all of my questions thoughtfully and comprehensively which deserves full marks. I watched the same YouTube video that you probably did on the prime number function that is not very efficient. It is still fascinating how someone was basically able to 'code' using mathematical language. Prime numbers remain such a fascinating topic in math and computer science and I encourage you to look more into the usefulness of primes in areas such as cybersecurity. Look up "Diffie-Hellman Key Exchange". It's amazing how mathematicians and software engineers have solved problems such as transferring private information over a public network like the internet where information is kept private even if it is intercepted! Guess what? The solution involves prime numbers. The math behind it may not make sense to you, but if you ever take a Number Theory course in post-secondary then it will start to. It may be cool to get some exposure to it if you find it fascinating though. Let me know if you would like any resources related to Math.

Here's another random video you may find inspiring: https://www.youtube.com/watch?v=Kqi_6v2RGB0

It's about a high schooler who made contributions towards a prime number theorem. Although you are young, you can still make valuable contributions towards your field of study (comp sci, etc). You've proven to me that you are able to learn a lot in a short period of time. I remember you telling me that you started creating this game in December :). I'm sure you did SO much research on it. This is why I think projects work incredibly well for a Computer Science course. I think you learned so much more than a "final test" would have taught you.

Okay, let's get into your game. The amount of time and effort you put into this is very apparent. It is so cool seeing fundamental computer science concepts applied in this context (especially object-oriented programming)! I love the way the maps are created using 2D arrays with integers! Additionally, the way you implemented sounds and toggling functions was impressive.

Your project is amazing and I think it would benefit you if I offer ideas that I think could make it better. I do not have much experience in creating Java games and so please do take my comments with a grain of salt.

Ideas:

- I think it would be cool to somehow add a feature where if the user touches the water, they need to start over (die and respawn). You could make future levels more challenging with levels like your last one with a bridge surrounded by water!
- You may not want the user to have this luxury, but imagine having a mini-map of the level that you can toggle like you toggle the controls
- A start menu could be a cool goal to implement.

I would love to have another meeting where you can showcase your project to me again! I have lots of questions (like how you made the character have a running motion, how you can toggle the controls, and etc)!

Well done Will!

Also, well done on this entire course! You have completed it with flying colours! Although you got the first version of the course, I appreciate your feedback as to how I can make this course better for future students. If you have any more comments, please let me know. Not all my students will be engaged as you were with the course concepts and so I have to create something that many students can engage with!

Best of luck in all your future endeavors! Your future is very bright :)

- Mr. Robideau, Mar 24/23