Task 4
Model Answer – Video 1
Video Transcript

Something that's important to keep in mind is that most case studies or take home assignments that you're going to come across are going to take anywhere from 4 to 10 hours to complete, depending on the task and the company.

To be as efficient as you can be, we're going to highlight how to create a plan for executing your case study.

While creating a plan for your case study might sound tedious or unnecessary, something else that's important to keep in mind is that having a plan for your case study makes talking through it in a follow up interview much easier.

When I started thinking about building the tic-tac-toe game, I wanted to first make sure that I understood the rules of the game and the components I needed to include.

I thought about things like how the board game should function, how many players I need, and types of winning conditions. I also noted some questions.

For example, when there is no way for someone to win, the game is going to end in a tie, but the board is not full yet, should the game just end or wait until the game is actually full?

Once I had a general idea of the requirements, I decided on a programming language and a user interface.

Priority is functionality. So I chose a language that I'm familiar with that I've used for similar projects in the past.

I also chose to keep the user interface simple because while it's important to the game, it's not the focus.

I wanted to be confident that I could have a project that has functioning basics before adding extras.

Once these key decisions were made, I could make a more detailed list of components I needed to consider and came up with the steps that I needed to take to complete the game.

I prioritized the steps based on how they would affect the functionality of the game.

I put the creation of the board first because without that you can't play the game, and most of the game logic requires the board to work.

Then I added things like placing the x or o, checking for a winner, and reading user input.

The last step I included was the computer players move while having a computer player is an important part of the problem.

I could have a functioning tic-tac-toe game without one, and it's simple to add once everything else is already working.

I made sure that I tested my solution against the rules and requirements of the game.

In addition to playing the game myself, I used unit tests to ensure that everything was working.

I tested the board setup, making a move, alternating turns, horizontal, vertical and diagonal winners, and ties.

And that's the end of my mock interview talk through.

The next video will be with a hiring manager who will talk through what they look for in case studies.