

CS 240: Modify Your Client Code Transcript

[00:00:00] Now that we have installed MySQL and Java on, on my, on our EC2 instance that is ready to go and we have a couple of other things that we need to do.

[00:00:11] So likely you need to modify your client code so you can accept an IP address and port and then we're going to need to copy our, our chess server and our client code onto that machine.

Start visual description. The professor demonstrates how to modify the client code to accept an IP address and port, explaining the need to copy the chess server and client code onto the machine. End visual description.

[00:00:25] So um about modifying your client code, what we need is we need to be able to specify both the IP address and the port in your client.

[00:00:36] So right now, the way you probably have your client set up, you, you likely have it set up to be able to accept the port number.

[00:00:44] So whatever port you run your server on your client, connect to that port, but you might have hard coded the IP address to be local host and that's not going to work for us.

Start visual description. The professor shows how to change the hard-coded IP address from localhost to a specified IP address and port, ensuring the client can connect to the server on the EC2 instance. End visual description.

[00:00:53] Um You're going to end up and, and anybody who plays um chess with your, with your chess server that we're creating on AWS, they're going to end up with client code on their local machine.

[00:01:04] So if you leave that IP address as local host, then it's going to try to find the server on your local machine.

[00:01:10] But we want to find the one on the two instance. So, you need to be able to specify what the IP address and port are.

[00:01:16] And remember I told you that every time you restart that, that EC2 instance, you're going to have a different IP address.

Start visual description. The professor explains the importance of specifying the IP address and port as command line parameters, highlighting that the IP address changes every time the EC2 instance restarts. End visual description.

[00:01:23] So we wouldn't want to build that into our code.

[00:01:25] We're going to need to specify that as a command line parameter.

[00:01:28] So there are a couple of different ways you could do it.

[00:01:30] The way this tutorial is, is suggesting that you do it.

[00:01:33] It's telling you to specify one parameter, which is an IP address, col import. So, one string that has that and that's not the way I chose to do it. I did it as two separate parameters.

[00:01:46] So you can do it either way you can, you can specify this as a string on your command line or you can specify two separate values.

[00:01:56] OK? So let's go look in our code to see where we might need to make a change.

[00:02:00] And depending on how you did yours, you may or may not need to change it.

[00:02:04] OK? So, we are needing to change our client. One of the things about that, you likely if you followed the steps that we gave you exactly for each of these phases, I think you would have ended up creating a class called main that has a main method in it to start your client.

[00:02:23] And that's fine, but it's not usually the way I prefer to do it.

Start visual description. The professor discusses the structure of the client code, suggesting placing the main method in the class whose code needs to be executed, and checks if the client accepts the IP address and port as parameters. End visual description.

- [00:02:26] I usually just like to take whatever is the class whose code needs to be executed and put the main method in there.
- [00:02:32] So for me, the class is called client.
- [00:02:35] So you just need to find whatever class you have that um there it is.
- [00:02:43] So whatever class you have that has the main method that starts your client and then look in that and make sure that you can specify or that it is accepting your IP address and your port either as one string parameter as two.
- [00:02:57] If it's not, you need to change your code.
- [00:02:59] So you can specify both of those values from the command line.
- [00:03:03] But you can see that mine already is expecting two parameters, and it is the IP address and the port.
- [00:03:08] So I don't need to change that part of my client.
- [00:03:13] OK? Another thing you need to do is you need to make it. So, the people that access your server have some way to get to the client.
- [00:03:21] So let's just talk about that and think about what we have here.

Start visual description. The professor talks about making the Java client available to users, suggesting adding a link to the existing test page served by the server for downloading the client code. End visual description.

- [00:03:24] So you have built a Java server that we're going to install on EC2. You also built a Java client.
- [00:03:31] And in order for your people that want to play chess to be able to play chess with your server, they have to have some way that they can get your client.
- [00:03:39] So let's just talk about that for a minute.
- [00:03:41] So first of all, you probably wouldn't build the client the way we did it in this class.
- [00:03:46] If you really wanted to make, make it so people could play chess on the internet with each other.
- [00:03:51] You probably would have built some kind of a web application for your client.
- [00:03:55] Um But we didn't do that here just because we can only teach you so much in one class.
- [00:03:59] We didn't have time to teach you all of that.
- [00:04:01] Um 260 you, you'll, you'll take uh for those of you who are going to take C S3 40 you'll have to take CCS 260 as a prerequisite.
- [00:04:09] Um In fact, actually, I think we, yeah, we've, we've made, trying to think, no, I don't think we've made CS 260 as a prerequisite for 240.
- [00:04:17] Um And that's, that's why we're not going to have you.
- [00:04:20] Um That's why we didn't do your client as a web client, but that's what you would have, you would have really wanted to do.
- [00:04:27] But since we didn't, we need to have some way to make that java code that Java client available to um users of your chess server.

- [00:04:35] So the way we're going to do that is we're going to just make it.
- [00:04:37] So it's a link inside of a web page that is served up by your server that people can click to get the, the client code and you already have a page. It's that it's that test page that we had you create.
- [00:04:51] So your server already serves up that web test page that you could use to test the different API N points.
- [00:04:57] And so if you really were going to have the client be this java client, you would end up wanting to completely replace that page. So, you'd change it.
- [00:05:04] So it describes something about playing games of chess and how you need to click this link to download it.
- [00:05:10] We're just going to make it easy and we're just going to um just add a link to that existing test page.
- [00:05:18] So here is the code that you need to add for that, and you need to add it to the index dot html page. I've already done that.
- [00:05:25] Um So what you will do is you'll just copy and paste this code and a couple of things that I want to point out about this code is first of all, um you can see here that this is um so this is going to provide a download link. So, this is a link to a client dot jar file.
- [00:05:48] So we're going to have to make your client dot Jar file available to be downloaded.
- Start visual description. The professor demonstrates adding a download link for the client.jar file to the index.html page, explaining how users can download and run the client code by specifying the server and IP address. End visual description.*
- [00:05:51] We'll do that in the next video.

- [00:05:53] So that's what the link is going to do is it's going to download this client dot jar file, then it says run with and it gives you this little command.
- [00:06:00] So it's saying once you, once you click this link and download this jar file, you need to run it by typing Java minus Jar client dot Jar and then um specify the server and the IP address.
- [00:06:13] So we will just take that, I'll just show you where that already exists inside of my code.
- [00:06:21] So that is in the server and resources is this web application.
- [00:06:29] So if we open up index dot html, you can see that I have pasted that script right here.
- [00:06:39] OK? So that's all you need to do is go into your index dot html.
- [00:06:42] You probably want to do it at the top. I did it.
- [00:06:45] Let's see right after this page describes that there's a chess server and then if you remember the page, it has all of the different um all the different API N points that you could select to test your server.
- [00:07:00] So I'm just putting, I'm just past I pasted this up above that.
- [00:07:04] OK? So now our index dot html will provide a way for people to download the client code once we put the client code in with the server, which we'll do in the next video.
- [00:07:17] So those are just to summarize that then.
- [00:07:19] So there are two changes that you may need to make.
- [00:07:22] One for sure that you need to make, you might need to change your client so it can accept the IP address and the port as parameters.

[00:07:30] And then you do need to change your index dot html page by copying this into somewhere probably near the top of that page or giving you that um that html that you need to copy in right here in the tutorial copy that in.

[00:07:47] And then you'll be ready for the next step.