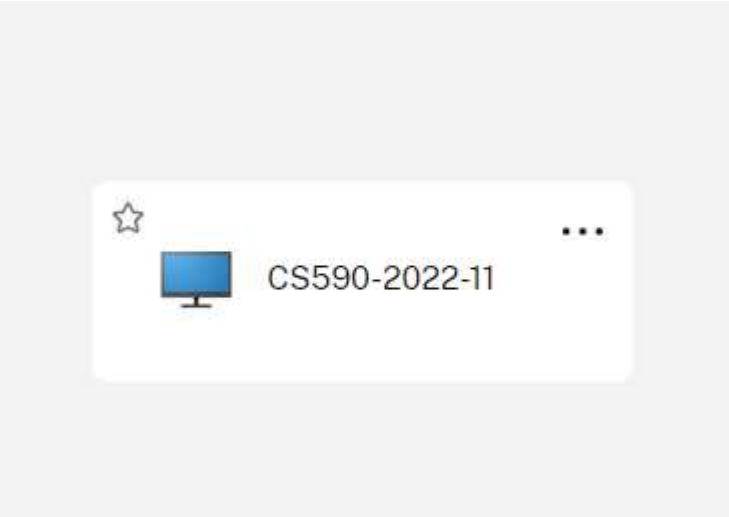
Lab 1

a.

1. In your browser (preferably Chrome) create an **incognito window** and browse to: ***compro.cloud.com***

2. Login using your Windows Active Directory lab username and password. Enter your username in the following format: cs.mum.edu\123456 (where 123456 is your student ID)

3. Once you login, you should be able to see a large rectangular icon that bears the name of your VM. Usually something like "**CS590-2022-11** ". Click on it.



- If this is the first time that you are running Citrix, it will prompt you to "Detect Citrix Workspace" which will install a client application to run the remote session. You can always choose "Use Browser" to run your remote session in a new browser tab using HTML5 or you can install the client application. Client app takes longer to load and takes a bit of time to install but creates a more stable experience with your remote session.

- Please never shut down your VM. It is safe to restart, but never shut down. If you do shut down your machine, we will have to manually restart it for you, and you will lose precious time.

For any issues related to Citrix and Active directory usernames and passwords, please contact
Monday October 31 : Payman Salek: **psalek@miu.edu**
Later: Utsav Pokhrel at **upokhrel@miu.edu**

b. Read the following article:
http://files.catwell.info/misc/mirror/2003-martin-fowler-who-needs-an-architect.pdf

c. Watch the following video: https://www.youtube.com/watch?v=DngAZyWMGR0

d. Write a one page essay where you explain clearly why software architecture is important

e. Explain what the difference is between software architecture and software design

f. Explain what makes software architecture so difficult.

g. Explain clearly the main differences of software architecture in a traditional waterfall project and software architecture in an agile project.

h. Suppose you need to define the architecture for a large expensive system, and it is important that this system is future proof because this system will be used for at least 20 years. Explain how you can design a future proof system.

i. For each of the following qualities, give at least 1 technique that you know to increase this quality:

    1. Performance
    2. Availability
    3. Resilience (against failure)
    4. Reusability
    5. Maintainability

What to hand in?

1. One PDF of part d, e, f , g and i