CMPSC 441
Distributed Systems

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Lecture 03 - Automating machine creation in the Cloud
Quick Announcements

- First Quiz is on Feb 13th.
- Lab 01 due date extended to next Monday.
Before getting into Lecture 03, let us address some questions on connecting machines manually.

- I will create a mini cluster (group of machines or nodes) in the Cloud.
- Using ssh, let us see how we can connect all 3 nodes together.
- Using scp, let us see how we can move the data from node to another.
What are the different provisioning states in Amazon EC2 cloud?

- Pending
- Running
- Stopping
- Stopped
- Shutting Down
- Terminating
So how do we provision machines automatically in the Cloud?

- Amazon EC2 SDK Java
- jsch Library - A java based library that provides you access to executing your code remotely and moving your data files and code files to remote locations in a 2 way direction. Combination of scp and ssh wrapper functionality, shipped to your application free and easy to use.
What challenges did I have in setting this up?

- My old code stopped working. Oh.....
- The SDK library jar file has been corrupted.
- Learning curve trying to understand the SDK new API. LOT of reading.
- Finally some luck after spending whole weekend, IT WORKED.
Okay, let us see if the code still works. May be need more testing, let us see.
Time for you to setup the code on your machine and have some fun