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# ***USING MASS OPEN.CLOUD FOR COURSE INFRASTRUCTURE***

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## **THE COURSES TARGETING MASSOPEN.CLOUD**

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CS4500 Software Development  
CS5500 Managing Software Development

These courses teach software engineering principles and practices

Since SE is best learned through application, we feature small teams doing real projects with real clients (principally community organizations or NEU research projects).

Prior, we used AWS, but this raises many logistical issues for both students and clients

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## EXPERIENTIAL LEARNING

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Students work in 4/5 person teams across the entire software development lifecycle using real tools and working with real clients

- Confluence/Jira
- Github
- Jenkins
- Many testing tools

The purpose the cloud environment is to host building and testing systems in a staging environment and optionally as a demonstration environment.

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## WHAT WE WANT FROM MASSOPEN.CLOUD

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1. Mini-data centers, one per project team: VMs hosting app software and providing web access
  2. Jenkins / CI running amok
  3. Capacity to support ~50 teams per semester / 200 students
    - *Plus a few holdover projects being done as independent studies*
  4. Some SaaS is helpful (e.g. tomcat, MySQL, Mongo, Node, Angular, REACT...)
  5. An environment that is available most of the time, especially toward the end of the semester.
  6. Management that makes it easy to add / remove students and environments
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