Cloud Computing

Virtualized, dynamically available computing resources available over the Internet.

- Bring up servers as needed. Pay based on use time, machine power, bandwidth, storage, etc.
- Closely tied to "__ as a service" deployment.
- Major vendors: Amazon, Microsoft, Salesforce.com, IBM, Yahoo, Rackspace, Google
- Useful for prototyping, peak demand supplementation, and even infrastructure outsourcing.
- Risks, pros, and cons need to be evaluated.
Challenges in Cloud Computing

Amazon's cloud computing infrastructure

**Elastic Compute Cloud** (EC2)—virtual servers

**SimpleDB**—data storage, indexing, retrieval

**Simple Storage Service** (S3)—device independent storage

**CloudFront**—storage for use in distributing web content

**Simple Queue Service** (SQS)—message queue for use with other distributed applications

**Elastic MapReduce**—cloud machines focused on intensive data processing
Process

Sign up for account
Provide payment information
   EC2 -- http://aws.amazon.com/ec2/#pricing
   S3 -- http://aws.amazon.com/s3/#pricing

Begin deploying resources
   EC2 -- http://aws.amazon.com/ec2/#os

Demo

Bringing up a new server in the Amazon cloud
http://aws.amazon.com/console/