

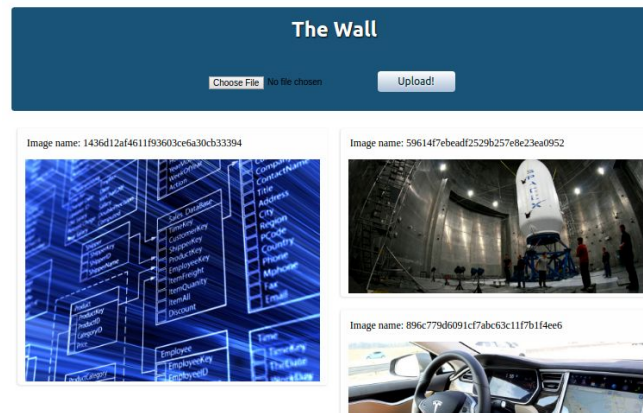
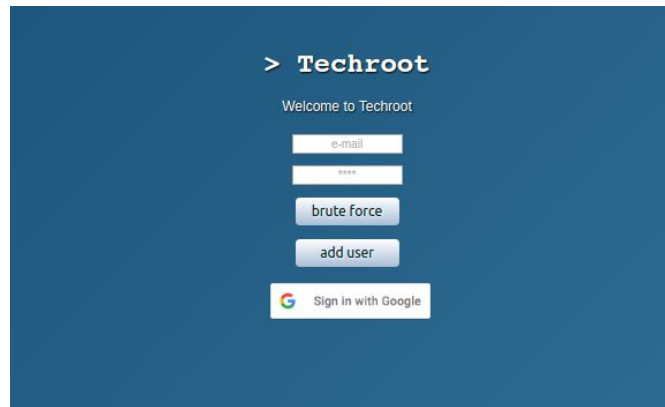
# Cloud Computing Final Project

Building a scalable dynamic website

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# Website overview

- Properties
  - A technology social-network
  - Dynamic
- The structure
  - Storage
  - Database
  - Webserver
- A few quirks
  - Optional authentication
  - Public content



# Initial server

- EC2 (one instance)
- Node.js
- Local storage



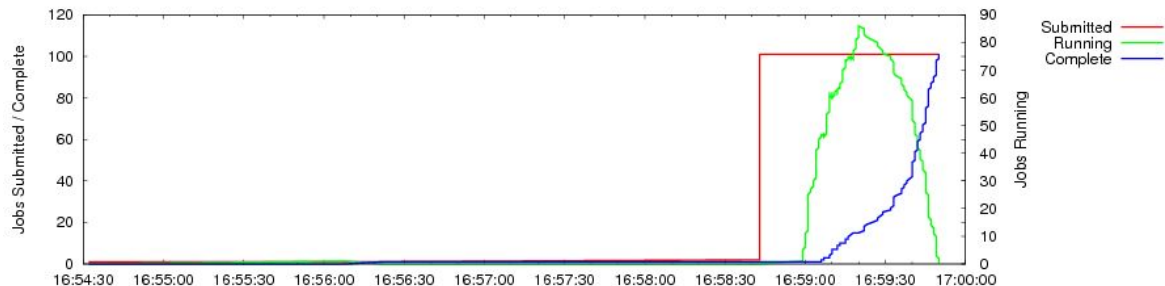
# Tests

- Variables
  - Latency
  - Loading times (up and down)
- Using Condor for testing
- Apache benchmark

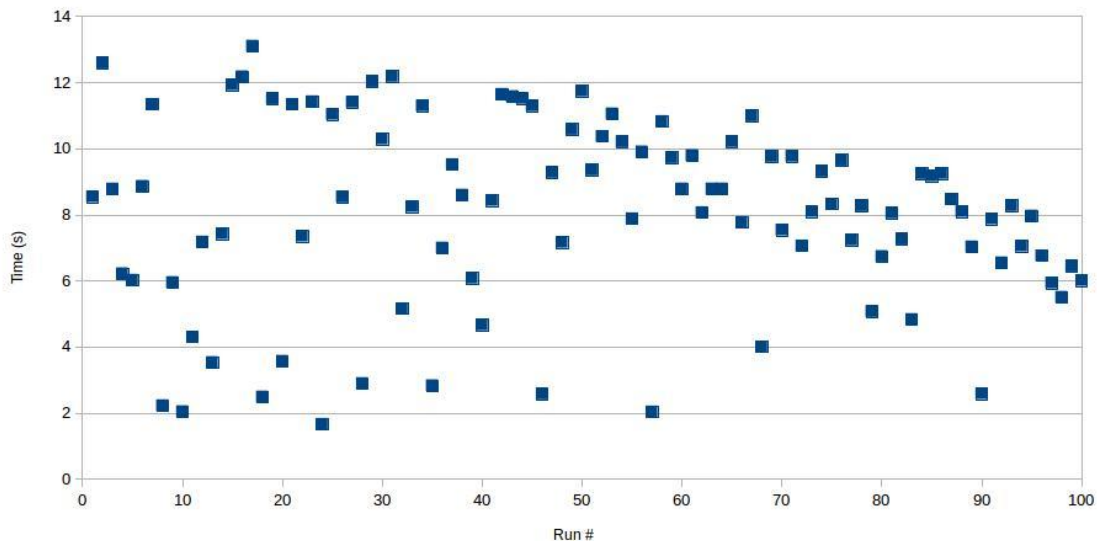




# Testing uploads



Upload time (100 runs x 3 images)



3 uploads per job (or run):

0.5 MB  
2 MB  
4 MB

$\Sigma$  6.5 MB x 100 uploads

Around 650 MB of traffic in ~50 seconds

# Apache benchmark results

*Homepage tested*

	<b>Mean time [st. dev] (ms)</b>		
<i># of concurrent accesses</i>	<i>10</i>	<i>100</i>	<i>1000</i>
Connecting time	29 [0.3]	34 [2.2]	130 [57.6]
Total	262 [35.3]	1290 [298.4]	10,542 [3,019]

# Conclusions

- Not a good idea to send the client everything at once
- The server performance decreased considerably with a couple hundred requests



# Next step: scaling the website

- Database
- Processing
- Storage



# Questions