# CMPE 281 - Team Project - Heroku Shopping Cart & AWS NoSQL Service

#### **Objectives:**

In this project, your team of 4-5 members will be building a cloud scale Shopping Cart Service on Amazon Cloud and Heroku using the basic scaling design approaches as discussed in the Book: The Practice of Cloud System Administration

(http://proquest.safaribooksonline.com.libaccess.sjlibrary.org/book/operating-systems-and-server-administration/virtualization/9780133478549). The Shopping Cart Domain is up to the Team to Decide. Here are some suggestions:

- The Future of Clipper <a href="http://www.futureofclipper.com/">http://www.futureofclipper.com/</a> (http://www.futureofclipper.com/)
- Ride Uber (Mobile) <a href="https://www.uber.com/">https://www.uber.com/</a> (https://www.uber.com/)
- Starbucks Online (or Mobile) Orders <a href="https://store.starbucks.com/">https://store.starbucks.com/</a> (https://store.starbucks.com/)

### Requirements:

- Each Team Member Must select one of the following Focus Areas:
  (No more than two team members per area)
  - Select on of the NoSQL DB (listed in diagram below) and deploy the DB to AWS
  - o Or, Work on Heroku Shopping Cart Front-End.
  - NOTE:
    - No more than "TWO" Team members on Heroku Front-End.
    - No more than "TWO" Team members per NoSQL DB Engine.
- Teams may use the Shared AWS Account (below) withing the Usage Guidelines.
- Teams must maintain a Weekly Project Task Board on Waffle.io (<a href="https://waffle.io/">https://waffle.io/</a> (<a href="https://waffle.io/">https://waffle.io/</a>
  )
- Teams must maintain a Shared Github Repository Linked on Waffle.io.





#### **AWS Usage Guidelines:**

#### Login URL to AWS Console:

https://060340690398.signin.aws.amazon.com/console (https://060340690398.signin.aws.amazon.com/console)

Login ID: cmpe281\_2016

Password: cmpe281\_cloud\_2016

Access Key ID: AKIAJOYBBE7HX3YO37YQ

Secret Access Key: jyhlBVXubZF57PiTbF8oPNxrmt6nubDoV8yt2Juy

\*\*\* Important \*\*\*

Please make sure to shutdown all your VM instances when not in use. The pool of credits are shared with CMPE 281. If abused, your account may be disabled.

Please Create your VMs and Resources in one of the following Data Centers, Resources not in these data centers may be deleted without notice:

- 1. US East (N. Virgina) Odd Team Numbers
- 2 IIS West (Oregon) Even Team Numbers

Also, make sure to label your EC2 VM's and other AWS Resources with your Team #. For example "Team #10". Resources not labeled may be deleted without notice.

## **Grading:**

- Individual Points (80 points)
  - 20 Points each for Weekly Contributions on Task Board and Github
  - Use a Team Shared <a href="https://waffle.io">https://waffle.io</a> and <a href="https://github.com/">https://github.com/</a>
    (https://github.com/)
- Team Points (10 points)
  - Team Presentation & Demo
- Demo Day Competition Points + Extra Credit Points (extra points for each team member)
  - Demo Finalist Selection (+10 points)
  - Final Round 1st Place gets +10 points extra credit
  - Final Round 2nd Place gets +5 points extra credit

#### **Deductions:**

- Turn-It-In Violation: Deductions at Instructor's discretion.
- Late Assignments: 5 points (within the 24-hour Late window)
- · Submissions not on Canvas before Assignment closes will not be considered.
- After project demo, teams have 1-week to clean up and terminate all EC2 VM's and resources from AWS. Not doing so will result in *deductions of up to 20 points*.