first

a word about xp
average person: 1365
<table>
<thead>
<tr>
<th>tasks</th>
<th>xp</th>
<th>total</th>
<th>grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>start</td>
<td>1365</td>
<td>1365</td>
<td>D+</td>
</tr>
<tr>
<td>team participation</td>
<td>85</td>
<td>1445</td>
<td>C-</td>
</tr>
<tr>
<td>Cassandra Abduction</td>
<td>50</td>
<td>1495</td>
<td>C</td>
</tr>
<tr>
<td>1/2 of pt1 of exam &amp; turn in pt 2 blank</td>
<td>96</td>
<td>1591</td>
<td>C+</td>
</tr>
<tr>
<td>demo partially working sprint 2 within 1 week</td>
<td>80</td>
<td>1671</td>
<td>C+</td>
</tr>
<tr>
<td>map-reduce or other in-class work</td>
<td>50</td>
<td>1721</td>
<td>B-</td>
</tr>
<tr>
<td>tasks</td>
<td>xp</td>
<td>total</td>
<td>grade</td>
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<td>50</td>
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<td>B-</td>
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<tr>
<td>mostly correct pt2 exam</td>
<td>150</td>
<td>1845</td>
<td>B</td>
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<tr>
<td>good effort final project</td>
<td>155</td>
<td>2000</td>
<td>A-</td>
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</table>
take away
the average person can get a B with modest effort
questions on xp?
a few weeks ago I was thinking …
have a first job

pressure to do well
self.centroids = []
for r in centroids:
    for i in range(1, len(self.data)):
        self.centroids.append(self.datapi[r])
self.centroids = [[self.data[i][r] for i in range(1, len(self.data))] for r in centroids]

def updateCentroids(self):
    """Using the points in the clusters, determine the centroid (mean point) of each cluster""
    members = [self.memberOf.count(i) for i in range(len(self.centroids))]

    self.centroids = [[sum([self.data[k][i]
                             for i in range(len(self.data[0]))
                             if self.memberOf[i] == centroid])/members[centroid]
                       for k in range(1, len(self.data))]
                      for centroid in range(len(self.centroids))]

pressure
stick with what you know
not experimenting with new things
school
pressure
grades
stick with what you know
not experimenting with new things
natural tendency
relax
noSQL project

optional
final projects

• from 75-500xp

• 75xp - basic demo/tutorial project (one evening - one day project)

• 200xp (multiple days)

• 500xp - *Hail Mary* option - (painfully working through nights.)
requirements are few

- do something in noSQL
- demo it in class on the 23rd of April (the last class)
- some examples later
history

- 2014 - 3 people did this project and received an average of 200p
- 2013 - 9 people did project; average: 180
size matters

• You can do it individually, with a partner, with a team.

• I assume a team can get more done than an individual and grade accordingly.

• I make assumptions about what a person can accomplish in an evening’s worth of work.

• Effort
75-100xp

• implement the sessions app we did in Cassandra.

• add Redis to sessions

• go through a tutorial that creates a virtual Cassandra cluster on your laptop and runs a few queries through it. (CassandraPlanet)

• go through a tutorial on writing a simple Flask/MongoDB app.

• do a more in-depth look at Cassandra and give a 8 minute demo in class.

• extend Cassandra Alien w/ additional features of Cassandra

• convert one of our larger sql databases to Cassandra and demo a few queries (also put it on github)
Cassandra 150xp

- 2 person team.
- do a Cassandra version of where in the world.
- will need to write script to convert world db. to cassandra) - the tough part.
- do a Cassandra version of our socket chat app. (non room version ~100xp)
• Follow an online tutorial to do a simple node.js mongodb blog site.
example of 250-300xp

• get a cluster of VMs running Cassandra and do a map-reduce job on them. (data analytics)

• get a small cluster of VMs running a simple flask app with a load balancer in front. (back-end developer)

• learn how to use Cassandra in Docker.
400xp

- Do anything on the previous slide on instances on Google Cloud or terminal.com (you get some free compute time)
again, it is up to you
these are just examples
deliverable

9 April: add name and idea to project sign-up
Questions
peer eval