CSE332: Data Abstractions

Section 7

Winter 2015

Section Agenda

- **Parallelism in Java**

- **Project 3 Introduction**
  - Analyzing US census data

Project 3

Where are the people?

Project 3 – Find Partner

- **Form 2 person team**

- More design / experimental components

- Complete catalyst survey by Monday Feb 23

- You still need to fill out survey even if you keep your partner from project 2

Project 3

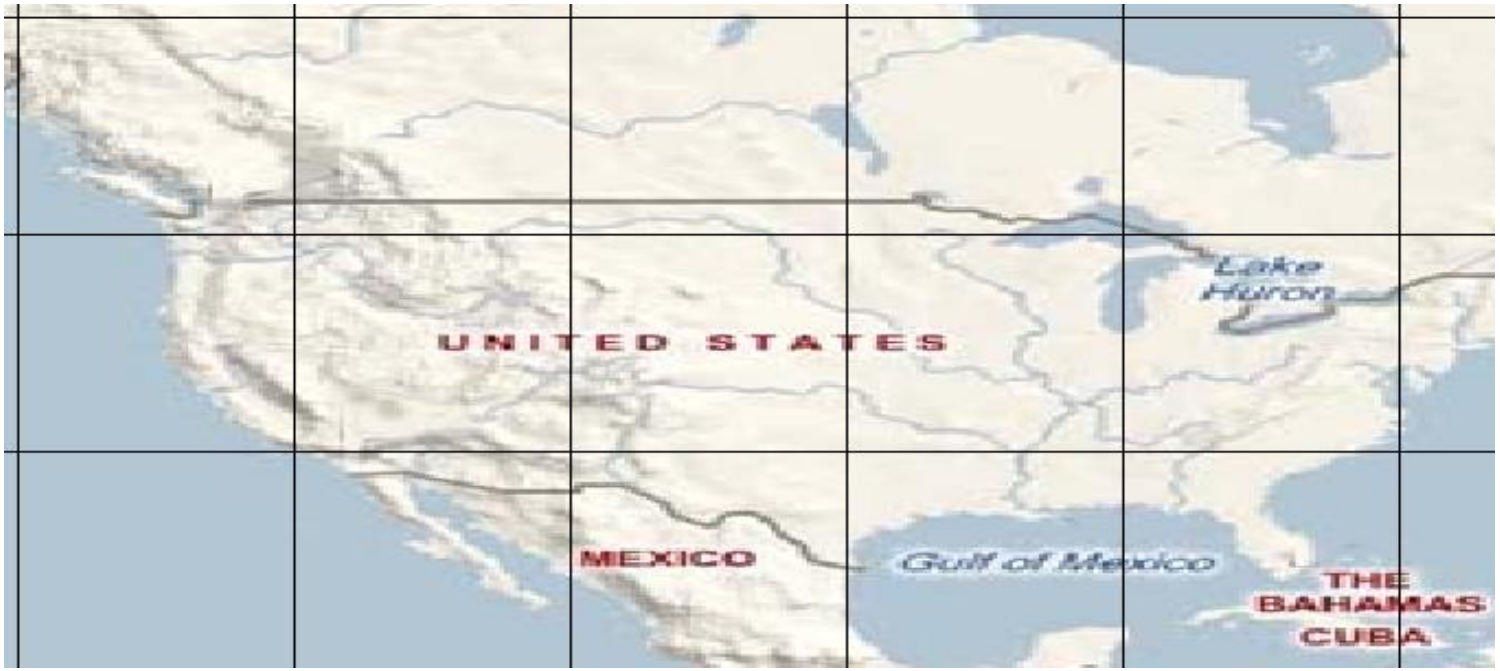
- **US Census Bureau**

state	county	population	latitude	longitude
01	001	1188	+32.48103	-86.486781
01	001	733	+32.465409	-86.486868
01	001	857	+32.479465	-86.473928
31	055	772	+41.262168	-95.982255
31	055	978	+41.265888	-95.963541
31	055	743	+41.261542	-95.968029
31	055	756	+41.265632	-95.970912
72	153	1827	+18.048574	-66.88596
72	153	3456	+18.058711	-66.875287
72	153	1444	+18.061441	-66.8652
72	153	2097	+18.04479	-66.865791
72	153	2677	+18.038417	-66.865411

Treat towns as points

Project 3

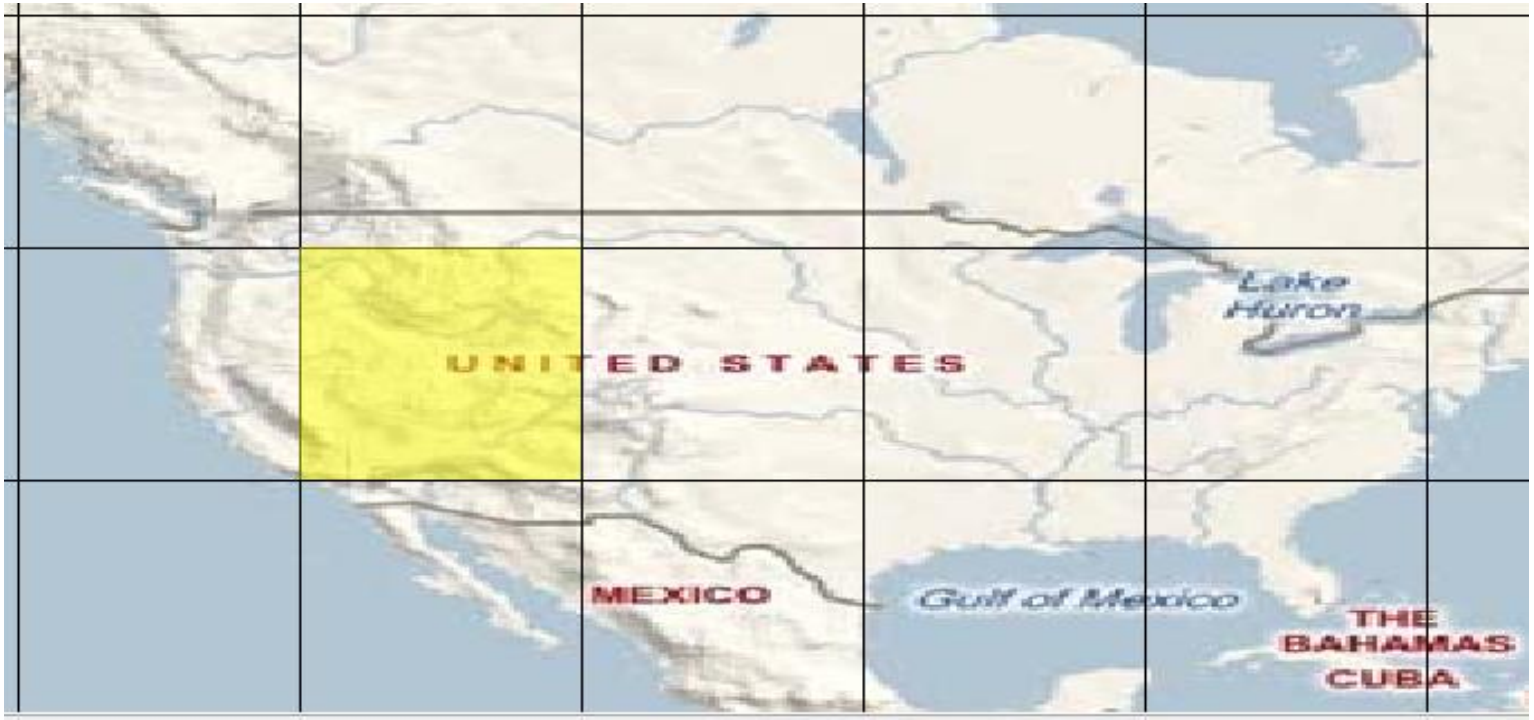
- **US Census Bureau**



1. Divide US with X by Y Grid
2. Compute Population in selected Rectangle

Project 3

- **US Census Bureau**



Population: 26360678

Percentage of total US: 9.24%

Project 3

- **Five different implementation**

1. Simple & Sequential
2. Simple & Parallel

Phase A

3. Smarter & Sequential
4. Smarter & Parallel
5. Smarter & Lock-Based

Phase B

- **Experiments & Write up**

Phase C

- Compare 5 versions with different queries