Cloud Computing Assignment 3

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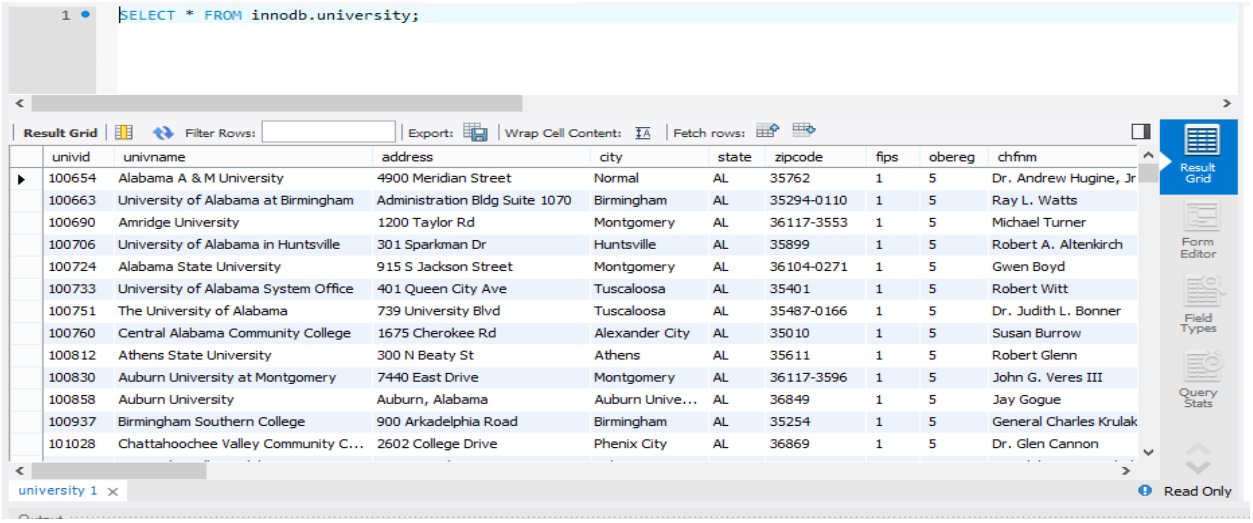
Aws S3:

Start time: 0.047491172315478176
Time taken for both files to upload: 0.009523276811858598
End time: 0.057014449127336775

Rdb: hd2013

CREATE TABLE university (univid VARCHAR(100), univname VARCHAR(100), address VARCHAR(100), city VARCHAR(100), state VARCHAR(100), zipcode VARCHAR(100), fips VARCHAR(100), obereg VARCHAR(100), chfnm VARCHAR(100), chftitle VARCHAR(100), gentele VARCHAR(100), Faxtele VARCHAR(100), ein VARCHAR(100), opeid VARCHAR(100), opeflag VARCHAR(100), webaddr VARCHAR(100), adminurl VARCHAR(100), faidurl VARCHAR(100), applurl VARCHAR(100), npricurl VARCHAR(100), sector VARCHAR(100), iclevel VARCHAR(100), control VARCHAR(100), hloffer VARCHAR(100), ugoffer VARCHAR(100), groffer VARCHAR(100), hdegofr1 VARCHAR(100), deggrant VARCHAR(100), hbcu VARCHAR(100), hospital VARCHAR(100), medical VARCHAR(100), tribal VARCHAR(100), locale VARCHAR(100), openpub VARCHAR(100), act VARCHAR(100), newid VARCHAR(100), deathyear VARCHAR(100), closeddate VARCHAR(100), cyactive VARCHAR(100), postsec VARCHAR(100), tseflag VARCHAR(100), pset4flg VARCHAR(100), rptmth VARCHAR(100), ialias VARCHAR(100), instcat VARCHAR(100), ccbasic VARCHAR(100), ccipug VARCHAR(100),ccipgrad VARCHAR(100), ccugpro VARCHAR(100), ccenrprf VARCHAR(100), ccsizset VARCHAR(100), carnegie VARCHAR(100), landgrn VARCHAR(100), instsize VARCHAR(100), cbsa VARCHAR(100), cbsatype VARCHAR(100), csa VARCHAR(100), necta VARCHAR(100), f1syscod VARCHAR(100), countycode int(100), countynm VARCHAR(100), cngdstcd int(100), longitude VARCHAR(100), latitude VARCHAR(100));

Time taken to upload: 45.109sec.

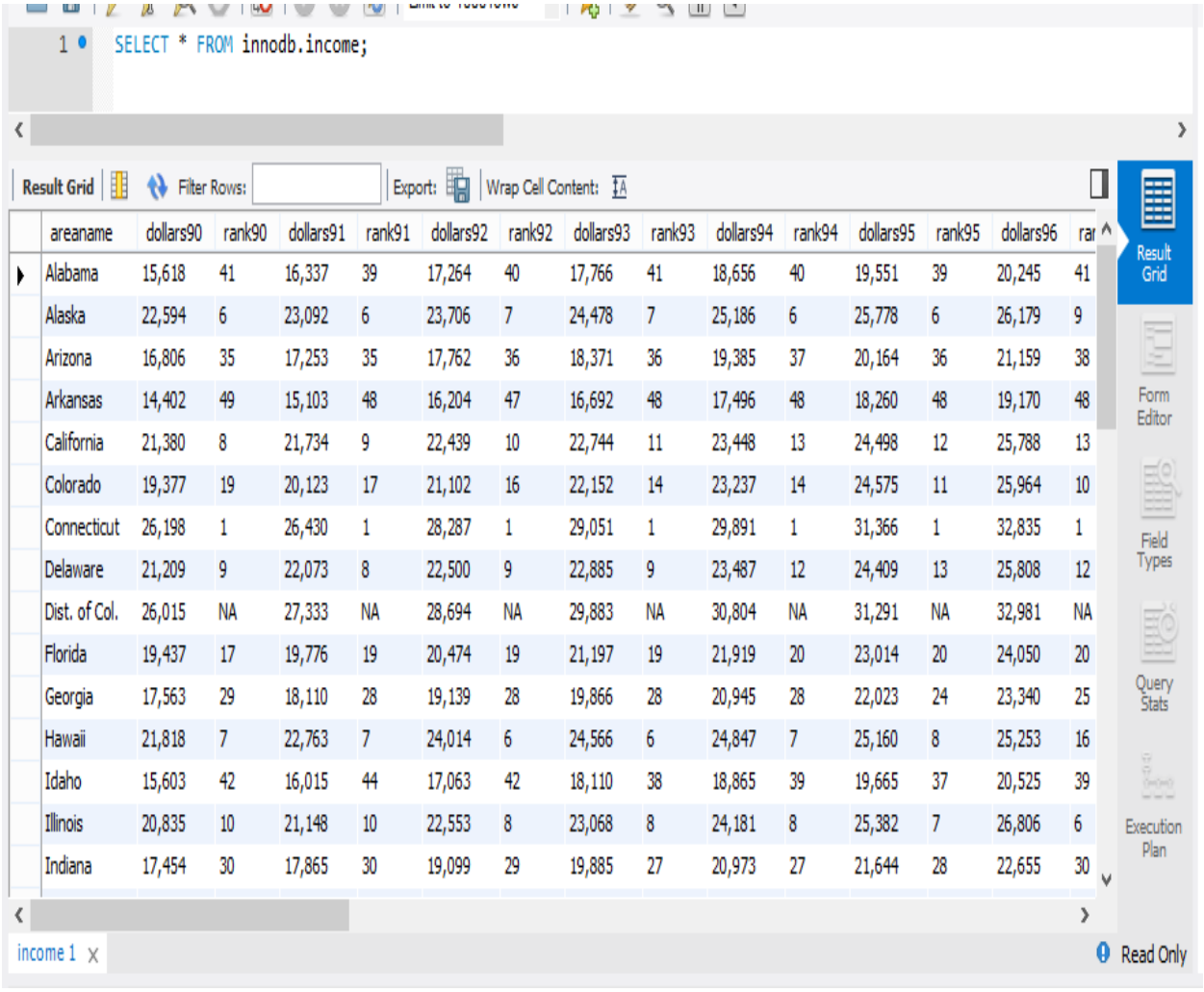


univid	univname	address	city	state	zipcode	fips	obereg	chfnm
100654	Alabama A & M University	4900 Meridian Street	Normal	AL	35762	1	5	Dr. Andrew Hugine, Jr
100663	University of Alabama at Birmingham	Administration Bldg Suite 1070	Birmingham	AL	35294-0110	1	5	Ray L. Watts
100690	Amridge University	1200 Taylor Rd	Montgomery	AL	36117-3553	1	5	Michael Turner
100706	University of Alabama in Huntsville	301 Sparkman Dr	Huntsville	AL	35899	1	5	Robert A. Altenkirch
100724	Alabama State University	915 S Jackson Street	Montgomery	AL	36104-0271	1	5	Gwen Boyd
100733	University of Alabama System Office	401 Queen City Ave	Tuscaloosa	AL	35401	1	5	Robert Witt
100751	The University of Alabama	739 University Blvd	Tuscaloosa	AL	35487-0166	1	5	Dr. Judith L. Bonner
100760	Central Alabama Community College	1675 Cherokee Rd	Alexander City	AL	35010	1	5	Susan Burrow
100812	Athens State University	300 N Beaty St	Athens	AL	35611	1	5	Robert Glenn
100830	Auburn University at Montgomery	7440 East Drive	Montgomery	AL	36117-3596	1	5	John G. Veres III
100858	Auburn University	Auburn, Alabama	Auburn Unive...	AL	36849	1	5	Jay Gogue
100937	Birmingham Southern College	900 Arkadelphia Road	Birmingham	AL	35254	1	5	General Charles Krulak
101028	Chattahoochee Valley Community C...	2602 College Drive	Phenix City	AL	36869	1	5	Dr. Glen Cannon

Us-pci:

```
create table income ( areaname varchar(100),dollars90 varchar(100),rank90 varchar(100),
dollars91 varchar(100),rank91 varchar(100), dollars92 varchar(100),rank92 varchar(100),
dollars93 varchar(100),rank93 varchar(100), dollars94 varchar(100),rank94 varchar(100),
dollars95 varchar(100),rank95 varchar(100), dollars96 varchar(100),rank96 varchar(100),
dollars97 varchar(100),rank97 varchar(100), dollars98 varchar(100),rank98 varchar(100),
dollars99 varchar(100),rank99 varchar(100), dollars00 varchar(100),rank00 varchar(100),
dollars01 varchar(100),rank01 varchar(100), dollars02 varchar(100),rank02 varchar(100),
dollars03 varchar(100),rank03 varchar(100), dollars04 varchar(100),rank04 varchar(100),
dollars05 varchar(100),rank05 varchar(100), dollars06 varchar(100),rank06 varchar(100),
dollars07 varchar(100),rank07 varchar(100), dollars08 varchar(100),rank08 varchar(100),
dollars09 varchar(100),rank09 varchar(100), dollars10 varchar(100),rank10 varchar(100),
dollars11 varchar(100),rank11 varchar(100), dollars12 varchar(100),rank12 varchar(100),average
varchar(100));
```

Time taken to upload: 0.344



areaname	dollars90	rank90	dollars91	rank91	dollars92	rank92	dollars93	rank93	dollars94	rank94	dollars95	rank95	dollars96	ra
Alabama	15,618	41	16,337	39	17,264	40	17,766	41	18,656	40	19,551	39	20,245	41
Alaska	22,594	6	23,092	6	23,706	7	24,478	7	25,186	6	25,778	6	26,179	9
Arizona	16,806	35	17,253	35	17,762	36	18,371	36	19,385	37	20,164	36	21,159	38
Arkansas	14,402	49	15,103	48	16,204	47	16,692	48	17,496	48	18,260	48	19,170	48
California	21,380	8	21,734	9	22,439	10	22,744	11	23,448	13	24,498	12	25,788	13
Colorado	19,377	19	20,123	17	21,102	16	22,152	14	23,237	14	24,575	11	25,964	10
Connecticut	26,198	1	26,430	1	28,287	1	29,051	1	29,891	1	31,366	1	32,835	1
Delaware	21,209	9	22,073	8	22,500	9	22,885	9	23,487	12	24,409	13	25,808	12
Dist. of Col.	26,015	NA	27,333	NA	28,694	NA	29,883	NA	30,804	NA	31,291	NA	32,981	NA
Florida	19,437	17	19,776	19	20,474	19	21,197	19	21,919	20	23,014	20	24,050	20
Georgia	17,563	29	18,110	28	19,139	28	19,866	28	20,945	28	22,023	24	23,340	25
Hawaii	21,818	7	22,763	7	24,014	6	24,566	6	24,847	7	25,160	8	25,253	16
Idaho	15,603	42	16,015	44	17,063	42	18,110	38	18,865	39	19,665	37	20,525	39
Illinois	20,835	10	21,148	10	22,553	8	23,068	8	24,181	8	25,382	7	26,806	6
Indiana	17,454	30	17,865	30	19,099	29	19,885	27	20,973	27	21,644	28	22,655	30

Code used to load the csv file to mysql

```
LOAD DATA LOCAL INFILE 'C:/Users/Adithya/Desktop/us-pci.csv' INTO TABLE income
FIELDS TERMINATED BY ','
ENCLOSED BY '"'
LINES TERMINATED BY '\r\n'
IGNORE 1 LINES;
```

Queries:

1) select count(univid), state from university
   group by university.state order by count(univid) desc;
2) select average, areaname from income order by average desc;

Output:

No.Of.INST	State	Average PCI	Highest PCI State
789	CA	47,373	Dist. of Col.
481	NY	21,595	Connecticut
479	TX	19,818	New Jersey
406	PA	19,560	Massachusetts
402	FL	18,562	Maryland
383	OH	18,560	New York
320	IL	17,174	New Hampshire
226	MO	16,945	Virginia
204	MI	16,921	California
199	NC	16,898	Alaska
199	GA	16,894	Colorado
197	MA	16,832	Illinois
190	TN	16,719	Minnesota
178	VA	16,583	Washington
173	NJ	16,461	Wyoming
158	PR	16,222	Delaware
149	OK	16,085	Hawaii
149	MN	16,043	Rhode Island
146	AZ	15,771	Nevada
141	CO	15,755	Pennsylvania
139	IN	15,355	Florida
128	LA	15,231	Nebraska
128	WA	15,060	Kansas
127	WI	15,047	Wisconsin
117	KY	14,951	Vermont
113	SC	14,710	Texas
105	MD	14,705	Ohio
100	CT	14,658	Oregon
99	OR	14,657	Michigan
96	IA	14,590	North Dakota
96	KS	14,582	South Dakota
93	AL	14,551	Iowa
88	AR	14,523	Missouri
88	UT	14,362	Georgia
79	WV	14,169	Maine
64	MS	14,140	North Carolina
53	NE	14,024	Indiana
53	NV	13,942	Tennessee
52	NM	13,729	Arizona
44	NH	13,479	Louisiana

44	ID	13,458	Oklahoma
43	ME	13,074	Montana
31	MT	13,032	Alabama
31	SD	12,908	South Carolina
30	ND	12,894	Idaho
28	HI	12,802	Kentucky
28	VT	12,777	Utah
25	DC	12,588	New Mexico
24	RI	12,388	Arkansas
21	DE	12,099	West Virginia
12	AK	11,709	Mississippi

Inference:

From the above results, we notice that the state with the least number of institutes = 25 being District of Columbia has the highest per capita income of 47,373. Hence we infer that it is not necessary for a state to have maximum number of institutions in order to have the maximum per capita incomes.

References:

http://boto.readthedocs.org/en/latest/s3_tut.html
http://aws.amazon.com/
https://www.google.com/
http://www.mysql.com/
http://dev.mysql.com/downloads/connector/j/
http://dev.mysql.com/doc/connector-j/en/connector-j-usagenotes-connect-drivermanager.html
http://www.youtube.com/watch?v=UQADy_y14B4
http://stackoverflow.com/questions/14127529/mysql-import-data-from-csv-using-load-data-infile
http://www.youtube.com/watch?v=jSJU0Yl-e0E