Overview of Group Project

Dr. Chris Mayfield

Department of Computer Science James Madison University

Jan 27, 2022

Wate view, we head the design of the second		DALIT BARKY, BAY, BAY, BAY, BAY, BAY, BAY, BAY, BA									
(ALL)	(ALL)	abjet	ter, bed	No.	eq. of sole ones	pass, advanted, rate	pass and rate	para josta	tel retr		
Accenter County Accent	Accentracke Dementary	(NGR	BIC .	Erghik Rodeg	455	28,5798900	0.009488	\$5.x100085	11,740060		
Alexandre County Analas High Alexandre Chy Anada High Alexandre Chronisgue Diamentary Chronisgue Diamentary Analas County Kaptien Elementary		INCE	ad a	Ingles Reading	415	25.000m8	42 (100000)	-	11,309962		
		INCR	ad a	al	45	25.000003	42 (60000)				
		116.00	soc .	Writing		15 glosses	ex Present	15.700023	12,520000		
Apportation County Advatus County	Meorgkin Elementary Namba Hillio	ENC/W	ad a	Witting	e11	15.00000	es revent	15.700021	14.5 20000		
Which groups of students? Rate: Center LEP		ENC/W	ad a	-	e1	15.09994	62.7298905	\$5.700EX	14.530000		
		HIST.	EIC .	Coupuply	474	2.3696601	10.1208067	1.0000.1			
		1017	EK.	TABLEBON	64	1.3000000	01.0070932		11.1400007		
AU - AU		10.07	-	World Ration 1	64		10.12080.00	10.100000	14.470000		
Unperfed Farm	781		-	World Harton H	11			-			
Indian Nasha Mide	- No -	1011	-	Geography		1. New York 1	No. A Designed	10,00000.7	14.0000000		
Black	Hilly Disadvanted			VARUE Report		1.3000000	an Assess		1. 140000		
NUMBER OF TAXABLE	MAL			You Later 1	64	4	43.33mm ps	10.10003			
Taxation Tes	7 Mil		ad a	Vote Katory I	61	10	10.000000	10,00000	1		
LY MALES (*) COL			ad a	with the state of the	47	2	12.5	14.5	16.6		
Click how for VLDS date descriptions								14.3			
		MATE	BIK	Alphal	467	•	62.22996.62	42.2399912	17,26000,		•

Group project outcomes

English language description \rightarrow working DB application

- 1. Create relational schemas from data descriptions
- 2. Import real data and enforce integrity constraints
- 3. Identify redundancies in designs and remove them
- 4. Write sophisticated database queries using SQL
- 5. Evaluate query performance and create indexes
- 6. Implement a web-based interface to the database

Project idea #1

TAP registration system

https://www.jmu.edu/cfi/teaching/teachingconsultations/taps.shtml

Data:

Faculty, Courses, Sign-ups, Consultants, etc.





Project idea #2

Nursing clinicals scheduler

https://nursing.jmu.edu/bsn/bsnsequence.html

Data:

Students, Hospitals, Assignments, History, etc.



Project idea #3

Personal email analytics

- Import mailbox format multiple GB
- Provide statistics (e.g., per day/week)
- Organize attachments, remove duplicates

Data:

Emails, Attachments, Contacts, Stats, etc.



Project idea #4

Community ListServ analytics

- https://sigcse.org/membership/mailing-lists.html
- https://listserv.jmu.edu/cgi-bin/wa?A0=JMUCS-L

Data:

Emails, Contacts, Discussions, etc.



Project idea #5

Better JMU catalog

http://catalog.jmu.edu/

Data:

- Courses, Departments, Majors, etc.
- Enrollment trends for past few years



Important considerations

Find real data, and lots of it! Some analysis, data in charts Ability to log in / make changes Pick something you want to do

Example datasets

Government open data

- https://www.data.gov
- http://data.virginia.gov
- http://www.jmu.edu/oir

Many other resources

- https://github.com/awesomedata/awesome-public-datasets
- https://www.blog.google/technology/ai/sharing-open-data/
- https://www.kaggle.com/datasets
- http://lmgtfy.com/?q=public+datasets