CSE4252

DATABASES FOR BIG DATA

LABORATORY ASSIGNMENTS

DEPARTMENT OF COMPUTER SCIENCE

INSTITUTE OF TECHNICAL EDUCATION AND RESEARCH

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CONTENTS:

Assignment (1)

Practicing DDL and DML Commands

Objective of this Assignment:

To Combine tables and create collection
To Insert Data into collections and create documents using Insert Command.

Questions:

1. Combine the below tables to create 1 or 2 collections and insert data into the collection.

ID	name	dept_name	salary
10101	Srinivasan	Comp. Sci.	65000
12121	Wu	Finance	90000
15151	Mozart	Music	40000
22222	Einstein	Physics	95000
32343	El Said	History	60000
33456	Gold	Physics	87000
45565	Katz	Comp. Sci.	75000
58583	Califieri	History	62000
76543	Singh	Finance	80000
76766	Crick	Biology	72000
83821	Brandt	Comp. Sci.	92000
98345	Kim	Elec. Eng.	80000

course_id	title	dept_name	credits
BIO-101	Intro. to Biology	Biology	4
BIO-301	Genetics	Biology	4
BIO-399	Computational Biology	Biology	3
CS-101	Intro. to Computer Science	Comp. Sci.	4
CS-190	Game Design	Comp. Sci.	4
CS-315	Robotics	Comp. Sci.	3
CS-319	Image Processing	Comp. Sci.	3
CS-347	Database System Concepts	Comp. Sci.	3
EE-181	Intro. to Digital Systems	Elec. Eng.	3
FIN-201	Investment Banking	Finance	3
HIS-351	World History	History	3
MU-199	Music Video Production	Music	3
PHY-101	Physical Principles	Physics	4

course_id	prereq_id
BIO-301	BIO-101
BIO-399	BIO-101
CS-190	CS-101
CS-315	CS-101
CS-319	CS-101
CS-347	CS-101
EE-181	PHY-101

dept_name	building	budget
Biology	Watson	90000
Comp. Sci.	Taylor	100000
Elec. Eng.	Taylor	85000
Finance	Painter	120000
History	Painter	50000
Music	Packard	80000
Physics	Watson	70000

ID	course_id	sec_id	semester	year
10101	CS-101	1	Fall	2009
10101	CS-315	1	Spring	2010
10101	CS-347	1	Fall	2009
12121	FIN-201	1	Spring	2010
15151	MU-199	1	Spring	2010
22222	PHY-101	1	Fall	2009
32343	HIS-351	1	Spring	2010
45565	CS-101	1	Spring	2010
45565	CS-319	1	Spring	2010
76766	BIO-101	1	Summer	2009
76766	BIO-301	1	Summer	2010
83821	CS-190	1	Spring	2009
83821	CS-190	2	Spring	2009
83821	CS-319	2	Spring	2010
98345	EE-181	1	Spring	2009

2. Write the Mongo DB Queries for the following queries and verify it in your PC by executing it.

a) Display the contents of all the tables you have created in assignment (1).

b) Display the name and department of each instructor.

c) Display the name and salary of Comp. Sci. Instructors.

d) Display the records of instructor who belongs to Physics department and getting salary less than 90000.

e) Display the name of the instructors who do not belong to Comp. Sci. Department.

f) Display the names of the different department distinctly available in Instructor table.

g) Display all Course_id's that are taught in Spring semester of 2009.

h) Display course titles that are taught in Comp. Sci. Department and do not have credit equals to 3.

i) Display all columns of course table sorted in descending order of department names.

j) Add a date_of_join column to instructor table.

k) Insert date values to existing rows.

l) Change the name of dept_name to department in all the tables.

m) Change the name of "Prereq" table with new name "Prerequired"

n) Change Course_id column name to Sub_code.

o) Change the data type of name to varchar2 (50).

p) Change the name of Instructor table to Faculty_Info.

q) Change the Column size of Course_id in Course table from 10 to 8.

r) Delete the content of the table Prereq along with its description.

s) Change the column name 'Building' of Department table by new column name 'Builder'.