

Lab Assignment

Perform the following tasks on your system:

- 1) Create the following Relation (Tables) with primary key integrity constraint
(i) *instructor*

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

- 2) Create the following Relation (Tables)
(ii) *teaches*

ID	Course_id	sec id	semester	year
10101	CS-101	1	Fall	2017
10101	CS-315	1	Spring	2018
10101	CS-347	1	Fall	2017
12121	FIN-201	1	Spring	2018
15151	MU-199	1	Spring	2018
22222	PHY-101	1	Fall	2017
32343	HIS-351	1	Spring	2018
45565	CS-101	1	Spring	2018
45565	CS-319	1	Spring	2018
76766	BIO-101	1	Summer	2017
76766	BIO-301	1	Summer	2018
83821	CS-190	1	Spring	2017
83821	CS-190	2	Spring	2017
83821	CS-319	2	Spring	2018
98345	EE-181	1	Spring	2017

- 2) Insert following additional tuple in *instructor*
('10211', 'Smith', 'Biology', 66000)
- 3) Delete this tuple from *instructor*
('10211', 'Smith', 'Biology', 66000)
- 4) Select tuples from *instructor* where dept_name = 'History'
- 5) Find the Cartesian product *instructor* x *teaches*.
- 6) Find the names of all instructors who have taught some course and the course_id
- 7) Find the names of all instructors whose name includes the substring "dar".
- 8) Find the names of all instructors with salary between 90,000 and 100,000 (that is, $\geq 90,000$ and $\leq 100,000$)