

# Assignment 1

1. Create the following Tables with their respective columns, data types and Size.

Table name	Columns	Datatypes	Size
Instructor	ID	Number	5
	Name	Varchar2	30
	Dept_name	Varchar2	20
	Salary	Number	6

SQL> create table Instructor ( ID number (5), Name varchar2 (30), Dept\_name varchar2 (20), Salary number (6));

Table name	Columns	Datatypes	Size
Course	Course_id	Varchar2	10
	Title	Varchar2	30
	Dept_name	Varchar2	20
	Credits	Number	2

SQL> create table Course (Course\_id varchar2 (10), Title varchar2 (30), Dept\_name varchar2 (20), Credits number (2));

Table name	Columns	Datatypes	Size
Prereq	Course_id	Varchar2	10
	Prereq_id	Varchar2	10

SQL> create table Prereq (Course\_id varchar2 (10), Prereq\_id varchar2 (10));

Table name	Columns	Datatypes	Size
Department	Dept-name	Varchar2	20
	Building	Varchar2	20
	Budget	Number	10

SQL> create table Department (Dept-name varchar2(20),  
Building varchar2(20), Budget number(10));

Table name	Columns	Datatypes	Size
Teaches	ID	Number	5
	Course-id	Varchar2	10
	Sec-id	Number	2
	Semester	Varchar2	10
	year	Number	4

SQL> create table Teaches (ID number(5), Course-id  
varchar2(10), Sec-id number(2), Semester varchar2(10),  
year number(4));

2. Insert data into Instructor table with data below.

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	Califiori	History	62000
76543	Singh	Finance	80000
76766	Crick	Biology	72000
83821	Brandt	Comp. Sci.	92000
98345	Kim	Elec. Eng.	80000

SQL > insert into Instructor (ID, Name, Dept\_name, Salary)  
values (10101, 'Srinivasan', 'Comp. Sci.', 65000);

SQL > insert into Instructor (ID, Name, Dept\_name, Salary)  
values (12121, 'Wu', 'Finance', 90000);

SQL > insert into Instructor (ID, Name, Dept\_name, Salary)  
values (15151, 'Mozart', 'Music', 40000);

SQL > insert into Instructor (ID, Name, Dept\_name, Salary)  
values (22222, 'Einstein', 'Physics', 95000);

SQL > insert into Instructor (ID, Name, Dept\_name, Salary)  
values (32343, 'El Said', 'History', 60000);

SQL > insert into Instructor (ID, Name, Dept\_name, Salary)  
values (33456, 'Gold', 'Physics', 87000);

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SQL> insert into Instructor (ID, Name, Dept_name, Salary)
      values (45565, 'Katz', 'Comp. Sci.', 75000);

SQL> insert into Instructor (ID, Name, Dept_name, Salary)
      values (58583, 'Califiori', 'History', 62000);

SQL> insert into Instructor (ID, Name, Dept_name, Salary)
      values (46543, 'Singh', 'Finance', 80000);

SQL> insert into Instructor (ID, Name, Dept_name, Salary)
      values (46766, 'Crick', 'Biology', 72000);

SQL> insert into Instructor (ID, Name, Dept_name, Salary)
      values (83821, 'Brandt', 'Comp. Sci.', 90000);

SQL> insert into Instructor (ID, Name, Dept_name, Salary)
      values (48345, 'Kim', 'Elec. Eng.', 810000);
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3. Insert data into course table with the data below:

course id	title	dept_name	credits
BIO-101	Intro. to Biology	Biology	4
BIO-301	Genetics	Biology	4
BIO-349	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 Systems 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

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SQL> insert into Course (Course-id, Title, Dept-name, Credits)
      values ('BIO-101', 'Intro to Biology', 'Biology', 4);

SQL> insert into Course (Course-id, Title, Dept-name, Credits)
      values ('BIO-301', 'Genetics', 'Biology', 4);

SQL> insert into Course (Course-id, Title, Dept-name, Credits)
      values ('BIO-399', 'Computational Biology', 'Biology', 3);

SQL> insert into Course (Course-id, Title, Dept-name, Credits)
      values ('CS-101', 'Intro. to Computer Science', 'Comp. Sci.',
            4);

SQL> insert into Course (Course-id, Title, Dept-name, Credits)
      values ('CS-190', 'Game Design', 'Comp. Sci.', 4);

SQL> insert into Course (Course-id, Title, Dept-name, Credits)
      values ('CS-315', 'Robotics', 'Comp. Sci.', 3);

SQL> insert into Course (Course-id, Title, Dept-name, Credits)
      values ('CS-319', 'Image Processing', 'Comp. Sci.', 3);

SQL> insert into Course (Course-id, Title, Dept-name, Credits)
      values ('CS-347', 'Database System concepts', 'Comp. Sci.', 3);

SQL> insert into Course (Course-id, Title, Dept-name, Credits)
      values ('EE-181', 'Intro. to Digital Systems', 'Elec. Eng.',
            3);

SQL> insert into Course (Course-id, Title, Dept-name, Credits)
      values ('FIN-201', 'Investment Banking', 'Finance', 3);

SQL> insert into Course (Course-id, Title, Dept-name, Credits)
      values ('HIS-351', 'World History', 'History', 3);

SQL> insert into Course (Course-id, Title, Dept-name, Credits)
      values ('MU-199', 'Music Video Production', 'Music', 3);

SQL> insert into Course (Course-id, Title, Dept-name, Credits)
      values ('PHY-101', 'Physical Principles', 'Physics', 4);
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4. Insert data into Prereq table with the data below:

course-id	prereq-id
B10-301	B10-101
B10-399	B10-101
CS-190	CS-101
CS-315	CS-101
CS-319	CS-101
CS-347	CS-101
EE-181	PHY-101

SQL> insert into Prereq (Course-id, Prereq-id) values  
( 'B10-301', 'B10-101' );

SQL> insert into Prereq ( Course-id, Prereq-id) values  
( 'B10-399', 'B10-101' );

SQL> insert into Prereq ( Course-id, Prereq-id) values  
( 'CS-190', 'CS-101' );

SQL> insert into Prereq ( Course-id, Prereq-id) values  
( 'CS-315', 'CS-101' );

SQL> insert into Prereq (Course-id, Prereq-id) values  
( 'CS-319', 'CS-101' );

SQL> insert into Prereq ( Course-id, Prereq-id) values  
( 'CS-347', 'CS-101' );

SQL> insert into Prereq ( Course-id, Prereq-id) values  
( 'EE-181', 'PHY-101' );

5. Insert data into Department table with the data below:

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

SQL> insert into Department (Dept\_name, Building, Budget)  
values ('Biology', 'Watson', 90000);

SQL> insert into Department (Dept\_name, Building, Budget)  
values ('Comp. Sci.', 'Taylor', 100000);

SQL> insert into Department (Dept\_name, Building, Budget)  
values ('Elec. Eng.', 'Taylor', 85000);

SQL> insert into Department (Dept\_name, Building, Budget)  
values ('Finance', 'Painter', 120000);

SQL> insert into Department (Dept\_name, Building, Budget)  
values ('History', 'Painter', 50000);

SQL> insert into Department (Dept\_name, Building, Budget)  
values ('Music', 'Packard', 80000);

SQL> insert into Department (Dept\_name, Building, Budget)  
values ('Physics', 'Watson', 70000);

6. Insert data into Teaches table with the data below:

ID	course-id	sec-id	Semester	year
10101	CS-101	1	Fall	2009
10101	CS-315	1	<del>Fall</del> Spring	2010
10101	CS-345	1	Fall	2009
12121	FIN-201	1	Spring	2010
15151	MU-199	1	Spring	2010
22222	PHY-101	1	Fall	2009
32343	MIS-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

SQL> Insert into Teaches (ID, Course-id, Sec-id, Semester, year)  
values (10101, 'CS-101', 1, 'Fall', 2009);

SQL> insert into Teaches (ID, Course-id, Sec-id, Semester, year)  
values (10101, 'CS-315', 1, 'Spring', 2010);

SQL> insert into Teaches (ID, Course-id, Sec-id, Semester, year)  
values (10101, 'CS-345', 1, 'Fall', 2009);

SQL> insert into Teaches (ID, Course-id, Sec-id, Semester, year)  
values (12121, 'FIN-201', 1, 'Spring', 2010);

SQL> insert into Teaches (ID, Course-id, Sec-id, Semester,  
year) values (15151, 'MU-199', 1, 'Spring', 2010);



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SQL> insert into Teaches (ID, Course-id, Sec-id, Semester, year)
      values (22222, 'PHY-101', 1, 'Fall', 2009);

SQL> insert into Teaches (ID, Course-id, Sec-id, Semester, year)
      values (32343, 'HIS-351', 1, 'Spring', 2010);

SQL> insert into Teaches (ID, Course-id, Sec-id, Semester,
      year) values (45565, 'CS-101', 1, 'Spring', 2010);

SQL> insert into Teaches (ID, Course-id, Sec-id, Semester,
      year) values (45565, 'CS-317', 1, 'Spring', 2010);

SQL> insert into Teaches (ID, Course-id, Sec-id, Semester,
      year) values (76766, 'BIO-101', 1, 'Summer', 2009);

SQL> insert into Teaches (ID, Course-id, Sec-id, Semester,
      year) values (76766, 'BIO-301', 'Summer', 2010);

SQL> insert into Teaches (ID, Course-id, Sec-id, Semester,
      year) values (83821, 'CS-190', 1, 'Spring', 2009);

SQL> insert into Teaches (ID, Course-id, Sec-id, Semester,
      year) values (83821, 'CS-190', 2, 'Spring', 2009);

SQL> insert into Teaches (ID, Course-id, Sec-id, Semester,
      year) values (83821, 'CS-319', 2, 'Spring', 2010);

SQL> insert into Teaches (ID, Course-id, Sec-id, Semester,
      year) values (98345, 'EE-101', 1, 'Spring', 2009);
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