

1) Write the SQL ~~Queries~~ Expressions for the following SQL Queries and verify it in your PC by executing it.

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

Ans →
DESC Courses;
desc Department;
desc Instructor;
desc Prereq;
desc Teaches;

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

Ans → ~~show~~ select * from Courses;
select * from Department;
select * from Instructor;
select * from Prereq;
select * from Teaches;

c) Display the name and department of each instructor.

Ans → select Name, Dept_name from Instructor;

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

Ans → select Name, Salary from Instructor where Dept_name = 'Comp. Sci.';

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

Ans → select * from Instructor where Dept_name = 'Physics' and Salary < 90000;

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

Ans → select Name from Instructor where Dept_name != 'Comp. Sci.';

g) Display the name of the different department ~~distinctly~~ available in Instructor table.

Ans → select DISTINCT Dept_name from Instructor;

h) Display the all Course id's that taught in Spring semester of 2009.

Ans → select Course_id from Teaches where Semester = 'Spring' and Year = 2009;

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

Ans → select Title from Course where Dept_name = 'Comp. Sci.' and Credits != 3;

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

Ans → select * from Course order by Dept_name desc;

k) Add a date_of_join column to instructor table.

Ans → alter table Instructor add date_of_join date;

l) Insert date values to existing rows.

Ans → update Instructor set date_of_join = '2018-07-10' where ID = 10101;

update Instructor set date_of_join = '2019-06-20' where ID = 12121;

update Instructor set date_of_join = '2020-05-15' where ID = 15151;

update Instructor set date_of_join = '2017-09-25' where ID = 22222;

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update Instructor set date_of_join = '2014-06-07' where ID = 83821;

update Instructor set date_of_join = '2020-10-10' where ID = 98345;

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

Ans → ~~ALTER~~ alter table Instructor change Dept_name Department varchar(20);

alter table Course change Dept_name Department varchar(20);

alter table Department change Dept_name Department varchar(20);

n) Change the name of "Prereq" table with new name "Prerequisite".

Ans → rename table Prereq to Prerequisite;

o) Change Course_id column name to Sub_code;

Ans → alter table Course change Course_id Sub_code varchar(10);

p) Change the data type of name to varchar(50).

Ans → alter table Instructor modify Name varchar(50);

q) Change the name of Instructor table to Faculty-Info.

Ans → rename table Instructor to Faculty-Info;

r) Change the Column size of course_id in Course table from 10 to 8.

Ans → alter table Course modify ^{Sub-code}~~Course-id~~ varchar(8); (Course-id changed to Sub-code in bit (0))

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

Ans → drop table Prerequired; (Prereq changed to Prerequired in bit (0)).

t) Change the column name "Building" of Department table by new column name "Builder";

Ans → Alter table Department change Building Builder varchar(20);