EAST WEST UNIVERSITY

Department of Computer Science and Engineering
Course Title: Database Systems
Course code: CSE302

Lab no: 01

Submitted by:
Student name: Suddip Paul Arnab
ID: 2022-1-60-356

Submitted To:
Dr. Mohammad Rezwanul Huq
Associate Professor
Department of CSE

Date of Submission: 08/02/2024

Lab Task # 01 (Creating a table):

1)a)

```
CREATE TABLE instructor_2022160356(
    id NUMBER,
    name VARCHAR(25),
    dept_name VARCHAR(25),
    salary NUMBER,
    PRIMARY KEY(id)
);
```

```
Table created.

0.04 seconds
```

1)b)

```
CREATE TABLE course_2022160356(
    course_id VARCHAR(25),
    title VARCHAR(100),
    dept_name VARCHAR(25),
    credits NUMBER,
    PRIMARY KEY(course_id)
);
```

```
Table created.

0.04 seconds
```

Lab Task # 02 (Inserting data into a table):

2)a)

```sql
INSERT INTO instructor_2022160356 VALUES(10101,'Srinivasan','Comp. Sci.',65000);
INSERT INTO instructor_2022160356 VALUES(12121,'Wu','Finance',90000);
INSERT INTO instructor_2022160356 VALUES(15151,'Mozart','Music',40000);
INSERT INTO instructor_2022160356 VALUES(22222,'Einstein','Physics',95000);
INSERT INTO instructor_2022160356 VALUES(32343,'El Said','History',60000);
INSERT INTO instructor_2022160356 VALUES(33456,'Gold','Physics',87000);
INSERT INTO instructor_2022160356 VALUES(45565,'Katz','Comp. Sci.',75000);
INSERT INTO instructor_2022160356 VALUES(58583,'Califieri','History',62000);
INSERT INTO instructor_2022160356 VALUES(76543,'Singh','Finance',80000);
INSERT INTO instructor_2022160356 VALUES(76766,'Crick','Biology',72000);
INSERT INTO instructor_2022160356 VALUES(83821,'Brandt','Comp. Sci.',92000);
INSERT INTO instructor_2022160356 VALUES(98345,'Kim','Elec. Eng.',80000);
```

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

12 rows returned in 0.00 seconds   Download

2)b)

```sql
INSERT INTO course_2022160356 VALUES('BIO-101','Intro. to Biology','Biology',4);
INSERT INTO course_2022160356 VALUES('BIO-301','Genetics','Biology',4);
INSERT INTO course_2022160356 VALUES('BIO-399','Computational Biology','Biology',3);
INSERT INTO course_2022160356 VALUES('CS-101','Intro. to Computer Science','Comp. Sci.',4);
INSERT INTO course_2022160356 VALUES('CS-190','Game Design','Comp. Sci.',4);
INSERT INTO course_2022160356 VALUES('CS-315','Robotics','Comp. Sci.',3);
INSERT INTO course_2022160356 VALUES('CS-319','Image Processing','Comp. Sci.',3);
INSERT INTO course_2022160356 VALUES('CS-347','Database System Concepts','Comp. Sci.',3);
INSERT INTO course_2022160356 VALUES('EE-181','Intro. to Digital Systems','Elec. Eng.',3);
INSERT INTO course_2022160356 VALUES('FIN-201','Investment Banking','Finance',3);
INSERT INTO course_2022160356 VALUES('HIS-351','World History','History',3);
INSERT INTO course_2022160356 VALUES('MU-199','Music Video Production','Music',3);
INSERT INTO course_2022160356 VALUES('PHY-101','Physical Principles','Physics',4);
```

COURSE_ID	TITLE	DEPT_NAME	CREDITS
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-319	Image Processing	Comp. Sci.	3
EE-181	Intro. to Digital Systems	Elec. Eng.	3
BIO-101	Intro. to Biology	Biology	4
HIS-351	World History	History	3
CS-315	Robotics	Comp. Sci.	3
MU-199	Music Video Production	Music	3
CS-347	Database System Concepts	Comp. Sci.	3
PHY-101	Physical Principles	Physics	4

12 rows returned in 0.00 seconds   Download

Lab Task # 03 (Writing Queries):

3)i)

```
SELECT name FROM instructor_2022160356;
```

NAME
Katz
Srinivasan
Brandt
Wu
Mozart
El Said
Gold
Califieri
Einstein
Crick

3)ii)

```
SELECT course_id,title FROM course_2022160356;
```

COURSE_ID	TITLE
BIO-301	Genetics
BIO-399	Computational Biology
CS-101	Intro. to Computer Science
CS-190	Game Design
CS-319	Image Processing
EE-181	Intro. to Digital Systems
BIO-101	Intro. to Biology
HIS-351	World History
CS-315	Robotics
MU-199	Music Video Production

3)iii)

```
SELECT name,dept_name FROM instructor_2022160356 WHERE id=22222;
```

NAME	DEPT_NAME
Einstein	Physics

1 rows returned in 0.01 seconds   Download

3)iv)

```
SELECT title,credits FROM course_2022160356 WHERE dept_name='Comp. Sci.';
```

TITLE	CREDITS
Intro. to Computer Science	4
Game Design	4
Image Processing	3
Robotics	3
Database System Concepts	3

5 rows returned in 0.01 seconds   Download

3)v)

```
SELECT name,dept_name FROM instructor_2022160356 WHERE salary>70000;
```

NAME	DEPT_NAME
Katz	Comp. Sci.
Brandt	Comp. Sci.
Wu	Finance
Gold	Physics
Einstein	Physics
Crick	Biology
Singh	Finance
Kim	Elec. Eng.

8 rows returned in 0.00 seconds   Download

3)vi)

```
SELECT title FROM course_2022160356 WHERE credits>=4;
```

TITLE
Genetics
Intro. to Computer Science
Game Design
Intro. to Biology
Physical Principles

5 rows returned in 0.00 seconds   Download

3)vii)

```
SELECT name,dept_name FROM instructor_2022160356 WHERE salary>=80000 AND salary<=100000;
```

NAME	DEPT_NAME
Brandt	Comp. Sci.
Wu	Finance
Gold	Physics
Einstein	Physics
Singh	Finance
Kim	Elec. Eng.

6 rows returned in 0.00 seconds   Download

3)viii)

```
SELECT title,credits FROM course_2022160356 WHERE NOT dept_name='Comp. Sci.';
```

TITLE	CREDITS
Genetics	4
Computational Biology	3
Intro. to Digital Systems	3
Intro. to Biology	4
World History	3
Music Video Production	3
Physical Principles	4

7 rows returned in 0.01 seconds   Download

3)ix)

```
SELECT * FROM instructor_2022160356;
```

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

12 rows returned in 0.00 seconds   Download

3)x)

```
SELECT * FROM course_2022160356 WHERE dept_name='Biology' AND NOT credits=4;
```

COURSE_ID	TITLE	DEPT_NAME	CREDITS
BIO-399	Computational Biology	Biology	3

1 rows returned in 0.00 seconds   Download