**PROG3200 – Assignment 1**

**Name: Bishwajit Barua**

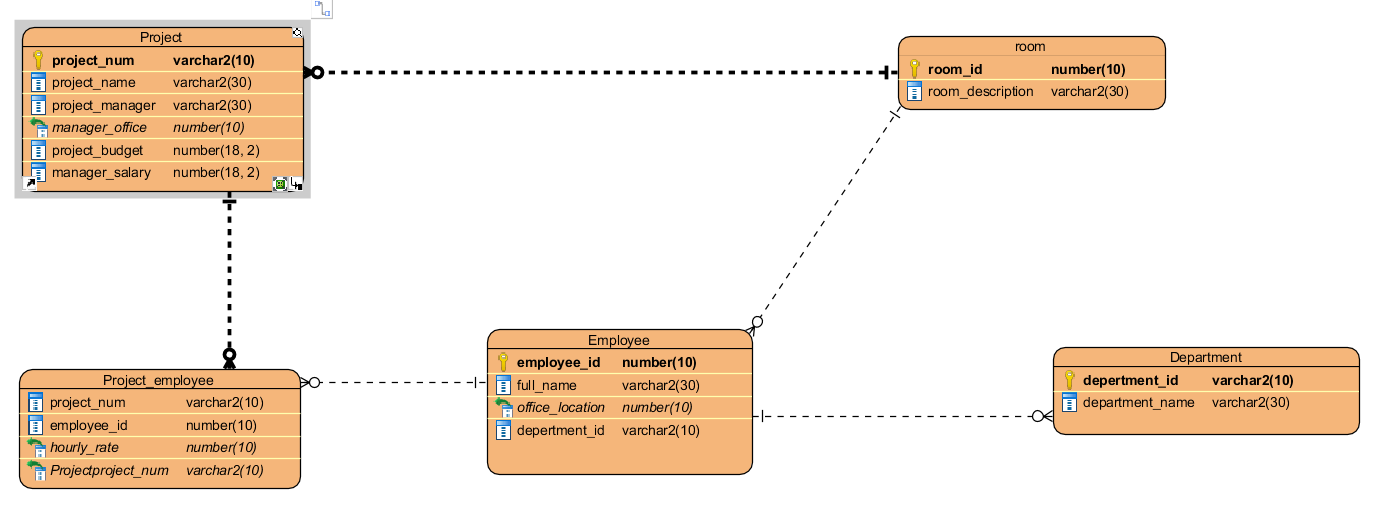
**Register number: 6397699**

**CPA program**

**Conestoga College**

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**Answer Question No 1:**



**Answer Question No 2:**

/\*Table: project \*/

DROP TABLE project CASCADE CONSTRAINTS;

CREATE TABLE project (

project\_num VARCHAR2 (10) CONSTRAINT project\_num\_pk PRIMARY KEY,

project\_name VARCHAR2 (30) NOT NULL,

project\_manager VARCHAR2 (30) NOT NULL,

manager\_office INTEGER NOT NULL,

project\_budget NUMBER(18,2) NOT NULL,

manager\_salary NUMBER(18,2) NOT NULL

);

DESCRIBE project;

/\*Table: department \*/

DROP TABLE department CASCADE CONSTRAINTS;

CREATE TABLE department (

depertment\_id VARCHAR2 (10) CONSTRAINT depertment\_id\_pk PRIMARY KEY,

department\_name VARCHAR2 (30)

);

DESCRIBE department;

/\*Table: Room \*/

DROP TABLE room CASCADE CONSTRAINTS;

CREATE TABLE room (

room\_id INTEGER CONSTRAINT room\_pk PRIMARY KEY,

room\_description VARCHAR2 (30) NOT NULL

);

DESCRIBE room;

/\*Table: Employee \*/

DROP TABLE employee CASCADE CONSTRAINTS;

CREATE TABLE employee (

employee\_id INTEGER CONSTRAINT employee\_pk PRIMARY KEY,

full\_name VARCHAR2 (30) NOT NULL,

office\_location INTEGER NOT NULL,

depertment\_id VARCHAR2(30) NOT NULL,

CONSTRAINT fk\_depertment

FOREIGN KEY(depertment\_id)

REFERENCES department(depertment\_id),

CONSTRAINT fk\_room

FOREIGN KEY(office\_location)

REFERENCES room(room\_id)

);

DESCRIBE employee;

/\*Table: ProjectEmployee \*/

DROP TABLE project\_employee CASCADE CONSTRAINTS;

CREATE TABLE project\_employee (

project\_num VARCHAR2 (10) NOT NULL,

employee\_id INTEGER NOT NULL,

hourly\_rate NUMBER(14,2)NOT NULL,

CONSTRAINT fk\_project\_num

FOREIGN KEY(project\_num)

REFERENCES project(project\_num),

CONSTRAINT fk\_employee\_id

FOREIGN KEY(employee\_id)

REFERENCES employee(employee\_id)

);

DESCRIBE project\_employee;

/\* ALL TABLE CREATED \*/

**Answer Question No 3:**

/\*Data inserting start\*/

/\* Room \*/

INSERT INTO room VALUES (1, 'A Building Room 101');

INSERT INTO room VALUES (2, 'B Building Room 110');

INSERT INTO room VALUES (3, 'B Building Room 120');

INSERT INTO room VALUES (4, 'A Building Room 102');

INSERT INTO room VALUES (5, 'B Building Room 130');

INSERT INTO room VALUES (6, 'A Building Room 201');

INSERT INTO room VALUES (7, 'A Building Room 301');

INSERT INTO room VALUES (8, 'A Building Room 302');

INSERT INTO room VALUES (9, 'C Building Room 101');

INSERT INTO room VALUES (10, 'A Building Room 202');

INSERT INTO room VALUES (11, 'C Building Room 102');

INSERT INTO room VALUES (12, 'A Building Room 203');

INSERT INTO room VALUES (13, 'A Building Room 303');

INSERT INTO room VALUES (14, 'C Building Room 103');

INSERT INTO room VALUES (15, 'A Building Room 304');

INSERT INTO room VALUES (16, 'A Building Room 305');

INSERT INTO room VALUES (17, 'A Building Room 204');

SELECT \*

FROM room;

/\* Department \*/

INSERT INTO department VALUES ('M001', 'IT');

INSERT INTO department VALUES ('M002', 'Eng');

INSERT INTO department VALUES ('M003', 'Finance');

SELECT \*

FROM Department;

/\*project\*/

INSERT INTO project VALUES ('001', 'Inventory System', 'Alan', 1, 5000000, 150000);

INSERT INTO project VALUES ('002', 'Client System', 'Betty', 2, 500000, 120000);

INSERT INTO project VALUES ('003', 'Financial System', 'Christine', 3, 1000000, 200000);

INSERT INTO project VALUES ('004', 'Delevery System', 'Alan', 1, 2000000, 150000);

INSERT INTO project VALUES ('005', 'Human Resource System', 'Dan', 4, 750000, 200000);

INSERT INTO project VALUES ('006', 'R AND D System', 'Edward', 5, 1000000, 175000);

COMMIT;

SELECT \*

FROM project;

/\* Employee \*/

INSERT INTO employee VALUES (101, 'Alice', 6,'M001');

INSERT INTO employee VALUES (102, 'Bob', 7,'M002');

INSERT INTO employee VALUES (103, 'Carl', 8,'M002');

INSERT INTO employee VALUES (104, 'Donna', 9,'M003');

INSERT INTO employee VALUES (105, 'Earl', 10,'M001');

INSERT INTO employee VALUES (106, 'Felicia', 11,'M003');

INSERT INTO employee VALUES (107, 'Gary', 12,'M001');

INSERT INTO employee VALUES (108, 'Hellen', 13,'M002');

INSERT INTO employee VALUES (109, 'Ivan', 14, 'M003');

INSERT INTO employee VALUES (110, 'Jill', 15,'M002');

INSERT INTO employee VALUES (111, 'Kevin', 16,'M002');

INSERT INTO employee VALUES (112, 'Lenny', 17,'M001');

COMMIT;

SELECT \*

FROM employee;

/\*project\_employee\*/

INSERT INTO project\_employee VALUES ('001', 101, 20.00);

INSERT INTO project\_employee VALUES ('001', 102, 25.00);

INSERT INTO project\_employee VALUES ('001', 103, 30.00);

INSERT INTO project\_employee VALUES ('002', 103, 20.00);

INSERT INTO project\_employee VALUES ('002', 104, 15.00);

INSERT INTO project\_employee VALUES ('003', 105, 25.00);

INSERT INTO project\_employee VALUES ('003', 102, 21.00);

INSERT INTO project\_employee VALUES ('003', 104, 20.00);

INSERT INTO project\_employee VALUES ('004', 106, 25.00);

INSERT INTO project\_employee VALUES ('004', 101, 21.00);

INSERT INTO project\_employee VALUES ('004', 102, 22.00);

INSERT INTO project\_employee VALUES ('004', 103, 25.00);

INSERT INTO project\_employee VALUES ('005', 107, 30.00);

INSERT INTO project\_employee VALUES ('005', 108, 20.00);

INSERT INTO project\_employee VALUES ('005', 109, 20.00);

INSERT INTO project\_employee VALUES ('005', 104, 20.00);

INSERT INTO project\_employee VALUES ('006', 106, 21.00);

INSERT INTO project\_employee VALUES ('006', 105, 21.00);

INSERT INTO project\_employee VALUES ('006', 110, 20.00);

INSERT INTO project\_employee VALUES ('006', 111, 25.00);

INSERT INTO project\_employee VALUES ('006', 112, 23.00);

COMMIT;

SELECT \*

FROM project\_employee;

/\*Data inserted\*/

SELECT p.project\_num AS "Project Num"

, p.project\_name AS "Project Name"

, p.project\_manager AS "Project Manager"

, TO\_CHAR(p.manager\_salary, '999,999,999') AS "Manager Salary"

, r.room\_description AS "Manager Office"

, TO\_CHAR(p.project\_budget, '999,999,999') AS "Project Budget"

, e.full\_name AS "Employee Name"

, e.depertment\_id AS "Dept. Number"

, d.department\_name AS "Dept. Name"

, TO\_CHAR(pe.hourly\_rate, '9,999.99') AS "Employee Project Hourly Rate"

, re.room\_description AS "Employee Office"

FROM project p

INNER JOIN project\_employee pe

ON p.project\_num=pe.project\_num

INNER JOIN employee e

ON pe.employee\_id= e.employee\_id

INNER JOIN department d

ON e.depertment\_id=d.depertment\_id

INNER JOIN room r

ON p.manager\_office=r.room\_id

INNER JOIN room re

ON e.office\_location=re.room\_id

ORDER BY p.project\_num;

**Answer Question No 4:**

/\*Question 4 : Answer- \*/

DROP VIEW project\_size;

CREATE VIEW project\_size

AS

SELECT p.project\_name AS "Project Name"

, p.project\_manager AS "Project Manager"

, TO\_CHAR(p.project\_budget, '999,999,999') AS "Project Budget"

, COUNT(\*) AS "Number of Employee"

FROM project p, project\_employee e

WHERE p.project\_num=e.project\_num

GROUP BY p.project\_name, p.project\_manager, TO\_CHAR(p.project\_budget, '999,999,999');

SELECT \*

FROM project\_size;

**Answer Question No 5:**

/\*Question 5 : Answer- \*/

SELECT e.full\_name AS "Employee Name"

FROM project p

INNER JOIN project\_employee pe

ON p.project\_num= pe.project\_num

INNER JOIN employee e

ON pe.employee\_id= e.employee\_id

WHERE p.project\_name='Financial System'