



College of computer science and engineering

CCCS-215 Introduction to database

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Introduction

We would like to create a database for a building materials company. The company have many showrooms, warehouses, and employees in Saudi Arabia. And each warehouse has one or few kinds of building materials. In the past, Salesmen were only able to sell materials stored in the warehouse they work in. Now, the company moved salesmen to showrooms, and want to enable them to sell materials available in all warehouses around the kingdom.

Showrooms and warehouses are workplaces, but they have different uses. One for displaying building materials, and another for storing building materials.

The land of the warehouse is divided into rows and columns, they are numbered, and there's a sign at each intersection to help forklift driver find which location he is at.

Information needed

The company want to create a database that have information about every employee, warehouse, showroom, and materials. They also want it to contain more information about where materials are stored and displayed. And they want to know how much of each building material is available in each warehouse, and where it's located inside the warehouse, that would make it easy to reach out to all building materials and save time and effort.

We assume that the company also need information about weight and dimension to not overload trucks when delivering orders to customers.

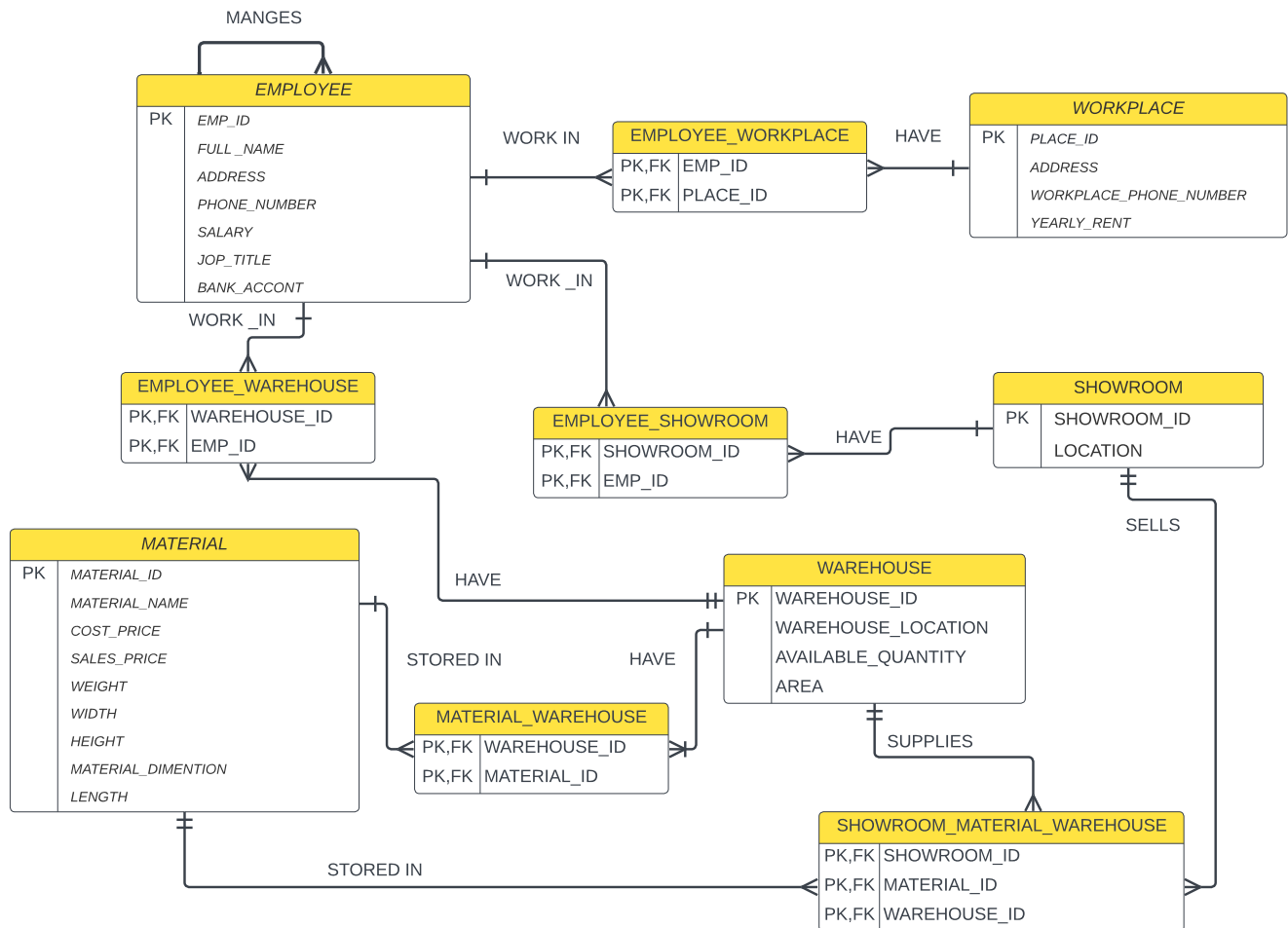
Entity and attributes

#	Entity	Attributes
1	EMPLOYEE	<u>EMP_ID</u> , PHONE_NUMBER, FULL_NAME, BANK_ACCOUNT, SALARY, ADDRESS, JOB_TITLE
2	WORKPLACE	<u>PLACE_ID</u> , ADDRESS, WORKPLACE_PHONE_NUMBER, YEARLY_RENT
3	SHOWROOM	<u>SHOWROOM_ID</u> , LOCATION
4	WAREHOUSE	<u>WAREHOUSE_ID</u> , WAREHOUSE_LOCATION, AVAILABLE_QUANTITY, AREA
5	MATERIAL	<u>MATERIAL_ID</u> , MATERIAL_NAME, COST_PRICE, SALES_PRICE, WEIGHT, WIDTH, HEIGHT, MATERIAL_DIMENTION, LENGTH

Distribution of duties

	Student name	Task
1	Mohammed Allagany: information gathering	SQL Query
2	Aseel Mahmoud: ER Diagram	Normalization
3	Khalid Nimri: Database build	Entity and attributes table.

E-R diagram



Relational schema

Employee

<u>EMP_ID</u>	FULL_NAME	ADDRESS	PHONE	SALARY	JOB TITLE	BANK_ACCOUNT	MANAGER_ID
---------------	-----------	---------	-------	--------	-----------	--------------	------------

EMPLOYEE_WORKPLACE

<u>EMP_ID</u>	<u>PLACE_ID</u>
---------------	-----------------

WORKPLACE

<u>PLACE_ID</u>	ADDRESS	PHONE	YEARLY_RENT
-----------------	---------	-------	-------------

EMPLOYEE MATERIAL

<u>EMP_ID</u>	<u>MATERIAL_ID</u>
---------------	--------------------

MATERIAL

<u>MATERIAL_ID</u>	MATERIAL_NAME	COST	SALES_PRICE	WEIGHT	WIDTH	HEIGHT	DIMENTION	LENGTH
--------------------	---------------	------	-------------	--------	-------	--------	-----------	--------

WAREHOUSE

<u>WAREHOUSE_ID</u>	LOCATION	ROW	COLUMN	AVAIL_QTY	AREA
---------------------	----------	-----	--------	-----------	------

SHOWROOM

<u>SHOWROOM_ID</u>

Code

Tables

```
CREATE TABLE EMPLOYEE(  
EMP_ID NUMBER (10) PRIMARY KEY,  
PHONE_NUMBER VARCHAR2(10) UNIQUE,  
FULL_NAME VARCHAR2(30),  
ADDRESS VARCHAR2(50),  
SALARY NUMBER(6),  
JOB_TITLE VARCHAR2(50),  
BANK_ACCOUNT VARCHAR2(25) UNIQUE  
)
```

Table created.

```
CREATE TABLE WORKPLACE(  
PLACE_ID NUMBER (10) PRIMARY KEY,  
ADDRESS VARCHAR2(30),  
WORKPLACE_PHONE_NUMBER VARCHAR(10) UNIQUE,  
YEARLY_RENT NUMBER (6)  
)
```

Table created.

```
CREATE TABLE WAREHOUSE(  
WAREHOUSE_ID NUMBER (10) PRIMARY KEY,  
WAREHOUSE_LOCATION VARCHAR2(30),  
AVAILABLE_QUANTITY NUMBER(10),  
AREA VARCHAR2 (20),  
PLACE_ID NUMBER (10)  
)
```

Table created.

```
CREATE TABLE SHOWROOM(  
SHOWROOM_ID NUMBER (8) PRIMARY KEY ,  
LOCATION VARCHAR2(30))
```

Table created.

```
CREATE TABLE MATERIAL(  
MATERIAL_ID NUMBER (10) PRIMARY KEY,  
COST_PRICE NUMBER(10),  
MATERIAL_NAME VARCHAR2(30),  
SALES_PRICE NUMBER(10),  
WEIGHT NUMBER (3),  
WIDTH NUMBER(3),  
HEIGHT NUMBER(3),  
LENGTH_ NUMBER (3),  
MATERIAL_DIMENTION NUMBER (3)  
)
```

```
CREATE TABLE EMPLOYEE_WORKPLACE(  
EMP_ID NUMBER (10) ,  
PLACE_ID NUMBER (10) ,  
FOREIGN KEY (EMP_ID) REFERENCES EMPLOYEE (EMP_ID),  
FOREIGN KEY (PLACE_ID) REFERENCES WORKPLACE (PLACE_ID),  
PRIMARY KEY (EMP_ID,PLACE_ID) )
```

Table created.

```
CREATE TABLE EMPLOYEE_WAREHOUSE(  
WAREHOUSE_ID number(10),  
EMP_ID number(10),  
foreign key(WAREHOUSE_ID) references WAREHOUSE (WAREHOUSE_ID),  
foreign key(EMP_ID) references EMPLOYEE (EMP_ID),  
PRIMARY KEY (EMP_ID, WAREHOUSE_ID)  
)
```

Table created.

```
CREATE TABLE EMPLOYEE_SHOWROOM(  
SHOWROOM_ID number(10),  
EMP_ID number(10),  
foreign key(SHOWROOM_ID) references SHOWROOM (SHOWROOM_ID),  
foreign key(EMP_ID) references EMPLOYEE (EMP_ID),  
PRIMARY KEY (EMP_ID, SHOWROOM_ID)  
)
```

Table created.

```
CREATE TABLE MATERIAL_WAREHOUSE(  
MATERIAL_ID number(10),  
WAREHOUSE_ID number(10),  
foreign key(MATERIAL_ID) references MATERIAL (MATERIAL_ID),  
foreign key(WAREHOUSE_ID) references WAREHOUSE (WAREHOUSE_ID),  
CONSTRAINT MHPK1 PRIMARY KEY (MATERIAL_ID, WAREHOUSE_ID)  
)
```

Table created.

```
CREATE TABLE SHOWROOM_MATERIAL_WAREHOUSE (  
SHOWROOM_ID number(10),  
MATERIAL_ID NUMBER(10),  
WAREHOUSE_ID NUMBER(10),  
foreign key(MATERIAL_ID) references MATERIAL (MATERIAL_ID),  
foreign key(WAREHOUSE_ID) references WAREHOUSE (WAREHOUSE_ID),  
foreign key(SHOWROOM_ID) references SHOWROOM (SHOWROOM_ID),  
CONSTRAINT MHPK2 PRIMARY KEY (SHOWROOM_ID,MATERIAL_ID, WAREHOUSE_ID)  
)
```

Table created.

inserts

```
INSERT INTO WORKPLACE(PLACE_ID,ADDRESS,WORKPLACE_PHONE_NUMBER,YEARLY_RENT) VALUES (11,'JEDDAH','0549982910',53000)
```

1 row(s) inserted.

```
INSERT INTO WORKPLACE(PLACE_ID,ADDRESS,WORKPLACE_PHONE_NUMBER,YEARLY_RENT) VALUES (22,'RIYADH','0549985322',82000)
```

1 row(s) inserted.

```
INSERT INTO EMPLOYEE (EMP_ID, PHONE_NUMBER, FULL_NAME, ADDRESS, SALARY, JOB_TITLE, BANK_ACCOUNT) VALUES
(1, '0550000001', 'Ali', 'AL-Safa , Jeddah', 20000, 'Manager', 'SA98-5678-9012-0001')
```

1 row(s) inserted.

```
INSERT INTO EMPLOYEE (EMP_ID, PHONE_NUMBER, FULL_NAME, ADDRESS, SALARY, JOB_TITLE, BANK_ACCOUNT) VALUES
(2, '0550000002', 'Mohammed ', 'AL-Marwa , Riyadh', 20000, 'Aluminum & Titanium Specialist', 'SA98-5678-9012-0002')
```

1 row(s) inserted.

```
INSERT INTO EMPLOYEE (EMP_ID, PHONE_NUMBER, FULL_NAME, ADDRESS, SALARY, JOB_TITLE, BANK_ACCOUNT) VALUES
(3, '0550000003', 'Abdulaziz', 'Asfan , Jeddah', 15000, 'Steel & Copper Specialist', 'SA98-5678-9012-0003')
```

1 row(s) inserted.

```
INSERT INTO EMPLOYEE (EMP_ID, PHONE_NUMBER, FULL_NAME, ADDRESS, SALARY, JOB_TITLE, BANK_ACCOUNT) VALUES
(4, '0550000004', 'Abdulrahman', 'Obhur ', Jeddah', 10000, 'Glass & Ceramic Specialist', 'SA98-5678-9012-0004')
```

1 row(s) inserted.

```
INSERT INTO EMPLOYEE (EMP_ID, PHONE_NUMBER, FULL_NAME, ADDRESS, SALARY, JOB_TITLE, BANK_ACCOUNT) VALUES
(5, '0550000005', 'Fares', 'AL-Zahra , Jeddah', 50000, 'Plastic & Marble Specialist', 'SA98-5678-9012-0005')
```

1 row(s) inserted.

```
INSERT INTO EMPLOYEE (EMP_ID, PHONE_NUMBER, FULL_NAME, ADDRESS, SALARY, JOB_TITLE, BANK_ACCOUNT) VALUES
(6, '0550000006', 'Hassan', 'AL-Shatli , Jeddah', 13000, 'Wood Specialist', 'SA98-5678-9012-0006')
```

1 row(s) inserted.

```
INSERT INTO EMPLOYEE (EMP_ID, PHONE_NUMBER, FULL_NAME, ADDRESS, SALARY, JOB_TITLE, BANK_ACCOUNT) VALUES
(7, '0550000007', 'Faisal', 'AL-Samir , Jeddah', 8000, 'Sales Representative', 'SA98-5678-9012-0007')
```

1 row(s) inserted.

```
INSERT INTO EMPLOYEE (EMP_ID, PHONE_NUMBER, FULL_NAME, ADDRESS, SALARY, JOB_TITLE, BANK_ACCOUNT) VALUES
(8, '0550000008', 'Saleh', 'AL-Zahra , Riyadh', 8000, 'Sales Representative', 'SA98-5678-9012-0008')
```

1 row(s) inserted.

```
INSERT INTO EMPLOYEE (EMP_ID, PHONE_NUMBER, FULL_NAME, ADDRESS, SALARY, JOB_TITLE, BANK_ACCOUNT) VALUES
(9, '0550000009', 'Salman', 'AL-Rabwa , Riyadh', 10000, 'Inspector', 'SA98-5678-9012-0009')
```

1 row(s) inserted.

```
INSERT INTO EMPLOYEE (EMP_ID, PHONE_NUMBER, FULL_NAME, ADDRESS, SALARY, JOB_TITLE, BANK_ACCOUNT) VALUES
(10, '0550000010', 'Abdullah', 'AL-Murjan , Jeddah', 10000, 'Inspector ', 'SA98-5678-9012-0010')
```

1 row(s) inserted.

```
INSERT INTO EMPLOYEE_WORKPLACE(EMP_ID,PLACE_ID) VALUES (1,11)
```

1 row(s) inserted.

```
INSERT INTO EMPLOYEE_WORKPLACE(EMP_ID,PLACE_ID) VALUES (2,11)
```

1 row(s) inserted.

```
INSERT INTO EMPLOYEE_WORKPLACE(EMP_ID,PLACE_ID) VALUES (3,11)
```

1 row(s) inserted.

```
INSERT INTO EMPLOYEE_WORKPLACE(EMP_ID,PLACE_ID) VALUES (4,22)
```

1 row(s) inserted.

```
INSERT INTO EMPLOYEE_WORKPLACE(EMP_ID,PLACE_ID) VALUES (5,22)
```

1 row(s) inserted.

```
INSERT INTO EMPLOYEE_WORKPLACE(EMP_ID,PLACE_ID) VALUES (6,22)
```

1 row(s) inserted.

```
INSERT INTO WAREHOUSE(WAREHOUSE_ID,WAREHOUSE_LOCATION,AVAILABLE_QUANTITY,AREA,PLACE_ID) VALUES (111,'JEDDAH',2300,'OBHUR',11)
```

1 row(s) inserted.

inserts

```
INSERT INTO WAREHOUSE(WAREHOUSE_ID,WAREHOUSE_LOCATION,AVAILABLE_QUANTITY,AREA,PLACE_ID) VALUES (222,'RIYADH',4000,'SAHAFH',22)

1 row(s) inserted.

INSERT INTO EMPLOYEE_WAREHOUSE(EMP_ID,WAREHOUSE_ID) VALUES (9,111)

1 row(s) inserted.

INSERT INTO EMPLOYEE_WAREHOUSE(EMP_ID,WAREHOUSE_ID) VALUES(10,222)

1 row(s) inserted.

INSERT INTO SHOWROOM(SHOWROOM_ID,LOCATION) VALUES(1111,'JEDDAH')

1 row(s) inserted.

INSERT INTO SHOWROOM(SHOWROOM_ID,LOCATION) VALUES(2222,'RIYADH')

1 row(s) inserted.

INSERT INTO EMPLOYEE_SHOWROOM(SHOWROOM_ID,EMP_ID) VALUES (1111,7)

1 row(s) inserted.

INSERT INTO EMPLOYEE_SHOWROOM(SHOWROOM_ID,EMP_ID) VALUES (1111,0)

1 row(s) inserted.

INSERT INTO MATERIAL(MATERIAL_ID, COST_PRICE , MATERIAL_NAME, SALES_PRICE, WEIGHT, WIDTH, HEIGHT, LENGTH_ , MATERIAL_DIMENTION)
VALUES (1001, 25, 'Aluminum', 45.00, 1, 10, 20, 5, 30)

1 row(s) inserted.

INSERT INTO MATERIAL(MATERIAL_ID, COST_PRICE , MATERIAL_NAME, SALES_PRICE, WEIGHT, WIDTH, HEIGHT, LENGTH_ , MATERIAL_DIMENTION)
VALUES (1002, 5, 'Steel', 15.00, 3, 5, 15, 7, 25)

1 row(s) inserted.

INSERT INTO MATERIAL(MATERIAL_ID, COST_PRICE , MATERIAL_NAME, SALES_PRICE, WEIGHT, WIDTH, HEIGHT, LENGTH_ , MATERIAL_DIMENTION)
VALUES (1003, 2, 'Plastic', 8.00, 0.5, 8, 12, 3, 15)
```

```
INSERT INTO MATERIAL(MATERIAL_ID, COST_PRICE , MATERIAL_NAME, SALES_PRICE, WEIGHT, WIDTH, HEIGHT, LENGTH_ , MATERIAL_DIMENTION)
VALUES (1004, 100, 'Titanium', 250.00, 2, 12, 30, 10, 40 )

1 row(s) inserted.

INSERT INTO MATERIAL(MATERIAL_ID, COST_PRICE , MATERIAL_NAME, SALES_PRICE, WEIGHT, WIDTH, HEIGHT, LENGTH_ , MATERIAL_DIMENTION)
VALUES (1005, 15, 'Copper', 35.00, 1.5, 7, 18, 6, 22)

1 row(s) inserted.

INSERT INTO MATERIAL(MATERIAL_ID, COST_PRICE , MATERIAL_NAME, SALES_PRICE, WEIGHT, WIDTH, HEIGHT, LENGTH_ , MATERIAL_DIMENTION)
VALUES (1006, 3, 'Glass', 12.00, 0.75, 5, 10, 4, 15)

1 row(s) inserted.

INSERT INTO MATERIAL(MATERIAL_ID, COST_PRICE , MATERIAL_NAME, SALES_PRICE, WEIGHT, WIDTH, HEIGHT, LENGTH_ , MATERIAL_DIMENTION)
VALUES (1007, 8, 'Ceramic', 20.00, 1.5, 8, 15, 5, 20)

1 row(s) inserted.

INSERT INTO MATERIAL(MATERIAL_ID, COST_PRICE , MATERIAL_NAME, SALES_PRICE, WEIGHT, WIDTH, HEIGHT, LENGTH_ , MATERIAL_DIMENTION)
VALUES (1008, 7.00, 'Steel Plate', 18.00, 1, 6, 12, 4, 10)

1 row(s) inserted.

INSERT INTO MATERIAL(MATERIAL_ID, COST_PRICE , MATERIAL_NAME, SALES_PRICE, WEIGHT, WIDTH, HEIGHT, LENGTH_ , MATERIAL_DIMENTION)
VALUES (1009, 12, 'Wood', 30.00, 2, 9, 20, 8, 30)

1 row(s) inserted.

INSERT INTO MATERIAL(MATERIAL_ID, COST_PRICE , MATERIAL_NAME, SALES_PRICE, WEIGHT, WIDTH, HEIGHT, LENGTH_ , MATERIAL_DIMENTION)
VALUES (1010, 30, 'Marble', 70.00, 3, 10, 25, 12, 35)

1 row(s) inserted.

INSERT INTO MATERIAL_WAREHOUSE(MATERIAL_ID,WAREHOUSE_ID) VALUES(1001,111)

1 row(s) inserted.

INSERT INTO MATERIAL_WAREHOUSE(MATERIAL_ID,WAREHOUSE_ID) VALUES(1002,111)

1 row(s) inserted.
```

inserts

```
INSERT INTO MATERIAL_WAREHOUSE(MATERIAL_ID,WAREHOUSE_ID) VALUES(1003,111)
```

1 row(s) inserted.

```
INSERT INTO MATERIAL_WAREHOUSE(MATERIAL_ID,WAREHOUSE_ID) VALUES(1004,111)
```

1 row(s) inserted.

```
INSERT INTO MATERIAL_WAREHOUSE(MATERIAL_ID,WAREHOUSE_ID) VALUES(1005,111)
```

1 row(s) inserted.

```
INSERT INTO MATERIAL_WAREHOUSE(MATERIAL_ID,WAREHOUSE_ID) VALUES(1009,111)
```

1 row(s) inserted.

```
INSERT INTO MATERIAL_WAREHOUSE(MATERIAL_ID,WAREHOUSE_ID) VALUES(1010,111)
```

1 row(s) inserted.

```
INSERT INTO MATERIAL_WAREHOUSE(MATERIAL_ID,WAREHOUSE_ID) VALUES(1001,222)
```

1 row(s) inserted.

```
INSERT INTO MATERIAL_WAREHOUSE(MATERIAL_ID,WAREHOUSE_ID) VALUES(1002,222)
```

1 row(s) inserted.

```
INSERT INTO MATERIAL_WAREHOUSE(MATERIAL_ID,WAREHOUSE_ID) VALUES(1004,222)
```

1 row(s) inserted.

```
INSERT INTO MATERIAL_WAREHOUSE(MATERIAL_ID,WAREHOUSE_ID) VALUES(1006,222)
```

1 row(s) inserted.

```
INSERT INTO MATERIAL_WAREHOUSE(MATERIAL_ID,WAREHOUSE_ID) VALUES(1007,222)
```

1 row(s) inserted.

```
INSERT INTO MATERIAL_WAREHOUSE(MATERIAL_ID,WAREHOUSE_ID) VALUES(1008,222)
```


Insert

```
INSERT INTO SHOWROOM_MATERIAL_WAREHOUSE (SHOWROOM_ID,MATERIAL_ID,WAREHOUSE_ID) VALUES (2222,1004,222)
```

1 row(s) inserted.

```
INSERT INTO SHOWROOM_MATERIAL_WAREHOUSE (SHOWROOM_ID,MATERIAL_ID,WAREHOUSE_ID) VALUES (2222,1006,222)
```

1 row(s) inserted.

```
INSERT INTO SHOWROOM_MATERIAL_WAREHOUSE (SHOWROOM_ID,MATERIAL_ID,WAREHOUSE_ID) VALUES (2222,1007,222)
```

1 row(s) inserted.

```
INSERT INTO SHOWROOM_MATERIAL_WAREHOUSE (SHOWROOM_ID,MATERIAL_ID,WAREHOUSE_ID) VALUES (2222,1008,222)
```

1 row(s) inserted.

```
INSERT INTO SHOWROOM_MATERIAL_WAREHOUSE (SHOWROOM_ID,MATERIAL_ID,WAREHOUSE_ID) VALUES (2222,1010,222)
```

```
INSERT INTO MATERIAL_WAREHOUSE(MATERIAL_ID,WAREHOUSE_ID) VALUES(1010,222)
```

1 row(s) inserted.

```
INSERT INTO SHOWROOM_MATERIAL_WAREHOUSE (SHOWROOM_ID,MATERIAL_ID,WAREHOUSE_ID) VALUES (1111,1001,111)
```

1 row(s) inserted.

```
INSERT INTO SHOWROOM_MATERIAL_WAREHOUSE (SHOWROOM_ID,MATERIAL_ID,WAREHOUSE_ID) VALUES (1111,1002,111)
```

1 row(s) inserted.

```
INSERT INTO SHOWROOM_MATERIAL_WAREHOUSE (SHOWROOM_ID,MATERIAL_ID,WAREHOUSE_ID) VALUES (1111,1003,111)
```

1 row(s) inserted.

```
INSERT INTO SHOWROOM_MATERIAL_WAREHOUSE (SHOWROOM_ID,MATERIAL_ID,WAREHOUSE_ID) VALUES (1111,1004,111)
```

1 row(s) inserted.

```
INSERT INTO SHOWROOM_MATERIAL_WAREHOUSE (SHOWROOM_ID,MATERIAL_ID,WAREHOUSE_ID) VALUES (1111,1005,111)
```

1 row(s) inserted.

```
INSERT INTO SHOWROOM_MATERIAL_WAREHOUSE (SHOWROOM_ID,MATERIAL_ID,WAREHOUSE_ID) VALUES (1111,1009,111)
```

1 row(s) inserted.

```
INSERT INTO SHOWROOM_MATERIAL_WAREHOUSE (SHOWROOM_ID,MATERIAL_ID,WAREHOUSE_ID) VALUES (1111,1010,111)
```

1 row(s) inserted.

```
INSERT INTO SHOWROOM_MATERIAL_WAREHOUSE (SHOWROOM_ID,MATERIAL_ID,WAREHOUSE_ID) VALUES (2222,1001,222)
```

1 row(s) inserted.

```
INSERT INTO SHOWROOM_MATERIAL_WAREHOUSE (SHOWROOM_ID,MATERIAL_ID,WAREHOUSE_ID) VALUES (2222,1002,222)
```

1 row(s) inserted.

```
INSERT INTO SHOWROOM_MATERIAL_WAREHOUSE (SHOWROOM_ID,MATERIAL_ID,WAREHOUSE_ID) VALUES (2222,1004,222)
```

Query

```
SELECT WORKPLACE.PLACE_ID, ADDRESS, COUNT(EMPLOYEE_WORKPLACE.EMP_ID) AS TOTAL_EMPLOYEES
FROM WORKPLACE
LEFT JOIN EMPLOYEE_WORKPLACE ON WORKPLACE.PLACE_ID = EMPLOYEE_WORKPLACE.PLACE_ID
GROUP BY WORKPLACE.PLACE_ID, ADDRESS
```

PLACE_ID	ADDRESS	TOTAL_EMPLOYEES
11	JEDDAH	3
22	RIYADH	3

Download CSV

2 rows selected.

```
SELECT FULL_NAME, JOB_TITLE, SALARY
FROM EMPLOYEE
WHERE SALARY > 15000
order by salary desc
```

FULL_NAME	JOB_TITLE	SALARY
Fares	Plastic & Marble Specialist	50000
Ali	Manager	20000
Mohammed	Aluminum & Titanium Specialist	20000

Download CSV

3 rows selected.

```
SELECT MIN(salary) AS min_sal,
       MAX(salary) AS max_sal,
       AVG (salary) AS avg_sal
FROM EMPLOYEE
```

MIN_SAL	MAX_SAL	AVG_SAL
8000	50000	16400

Download CSV

```
SELECT FULL_NAME, JOB_TITLE FROM EMPLOYEE
WHERE EMP_ID IN (SELECT EMP_ID FROM EMPLOYEE_WORKPLACE
                WHERE PLACE_ID IN (SELECT PLACE_ID FROM WORKPLACE
                                   WHERE ADDRESS = 'RIYADH'))
```

FULL_NAME	JOB_TITLE
Abdulrahman	Glass & Ceramic Specialist
Fares	Plastic & Marble Specialist
Hassan	Wood Specialist

Download CSV

3 rows selected.

Query

```
CREATE OR REPLACE PROCEDURE get_employees (  
  p_employee_id IN EMPLOYEE.EMP_ID%TYPE,  
  p_job_title IN EMPLOYEE.JOB_TITLE%TYPE,  
  p_result OUT SYS_REFCURSOR  
) AS  
BEGIN  
  OPEN p_result FOR  
    SELECT * FROM EMPLOYEE WHERE EMP_ID = p_employee_id AND JOB_TITLE = p_job_title;  
END;
```

Procedure created.

```
DECLARE  
  v_result SYS_REFCURSOR;  
  v_employee EMPLOYEE%ROWTYPE;  
BEGIN  
  get_employees(1, 'Manager', v_result);  
  LOOP  
    FETCH v_result INTO v_employee;  
    EXIT WHEN v_result%NOTFOUND;  
    DBMS_OUTPUT.PUT_LINE(v_employee.FULL_NAME);  
  END LOOP;  
  CLOSE v_result;  
END;
```

Statement processed.

Ali

```
CREATE OR REPLACE PROCEDURE update_employee_salary (  
  p_employee_id IN EMPLOYEE.EMP_ID%TYPE,  
  p_new_salary IN EMPLOYEE.SALARY%TYPE  
) AS  
BEGIN  
  UPDATE EMPLOYEE SET SALARY = p_new_salary WHERE EMP_ID = p_employee_id;  
END;
```

Procedure created.

```
BEGIN  
  update_employee_salary(1, 25000);  
END;
```

Statement processed.

Oracle link

<https://livesql.oracle.com/apex/livesql/s/oseq26f44v7s46nng7jd ocd6y>