

❖ Example 02:

Database Management System

1. Consider the following database with these relations.

CREATE DATABASE Example_02

employee (employee_name, street, city)

works (employee_name, company_name, salary)

```
CREATE TABLE employee (  
Employee_name varchar (255),  
Street varchar (255),  
City varchar (255)  
)  
  
Employee_name works (255),  
Company_name varchar (255),  
Salary int  
)
```

- a) Insert the following data into those relations

Employee works

employee_name	street	City	employee_name	company_name	salary
---------------	--------	------	---------------	--------------	--------

Arif	51 upashahar	Rajshahi	Sumon	Agrani	12000
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Sumon	52 east	Moynamati	Abdul	Sonali	13000
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Sagor	Neemgachhi	Sirajgong	Himesh	Agrani	6000
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Abdul Binodpur Rajshahi Amirul Sonali 20000

Himesh Nazrul avenue Dhaka Sagor Sonali 8000

Amirul Chawk bazar Sylhet Arif Janata 13000

Sajib 99 north Chittagong Sajib Janata 9000

```
INSERT INTO employee(employee_name,street,city)
```

```
VALUES
```

```
    ('Arif', '51 upashahar', 'Rajshahi'),
```

```
    ('Sumon', '52 east', 'Moynamati'),
```

```
    ('Sagor', 'Neemgachhi', 'Sirajgong'),
```

```
    ('Abdul', 'Binodpur', 'Rajshahi'),
```

```
    ('Himesh', 'Nazrul avenue', 'Dhaka'),
```

```
    ('Amirul', 'Chawk bazar', 'Sylhet'),
```

```
    ('Sajib', '99 north', 'Chittagong');
```

```
INSERT INTO works (employee_name, company_name, salary)
```

```
VALUES
```

```
    ('Arif', 'Agrani', 12000),
```

```
    ('Sumon', 'Sonali', 13000),
```

```
    ('Sagor', 'Agrani', 6000),
```

```
    ('Abdul', 'Sonali', 20000),
```

```
    ('Himesh', 'Sonali', 8000),
```

```
    ('Amirul', 'Janata', 13000),
```

```
    ('Sajib', 'Janata', 9000);
```

b) Find the names of all employees who live in Rajshahi city

```
SELECT employee_name
```

```
FROM employee
```

```
WHERE city = 'Rajshahi';
```

c) Find the names and streets address of all employees who live in Rajshahi city

```
SELECT employee_name, street
```

```
FROM employee
```

```
WHERE city = 'Rajshahi';
```

d) Find the names of all employees who work for (i) Sonali (ii) Agrani (iii) Janata

```
SELECT employee_name
```

```
FROM works
```

```
WHERE company_name = 'Sonali';
```

```
SELECT employee_name
```

```
FROM works
```

```
WHERE company_name = 'Agrani';
```

```
SELECT employee_name
```

```
FROM works
```

```
WHERE company_name = 'Janata';
```

e) Find the names and salary of all employees who work for (i) Sonali (ii) Agrani (iii) Janata

```
SELECT employee_name, salary  
FROM works  
WHERE company_name = 'Sonali';
```

```
SELECT employee_name, salary  
FROM works  
WHERE company_name = 'Agrani';
```

```
SELECT employee_name, salary  
FROM works  
WHERE company_name = 'Janata';
```

f) Find the names of all employees whose salary is (i) 12000 (ii) ≥ 12000 (iii) < 12000

```
SELECT employee_name  
FROM works  
WHERE salary=12000;
```

```
SELECT employee_name  
FROM works  
WHERE salary>12000;
```

```
SELECT employee_name  
FROM works  
WHERE salary < 12000;
```

g) Find the names and company of all employees whose salary is (i) 12000 (ii) ≥ 12000 (iii) < 12000

```
SELECT employee_name, company_name  
FROM works  
WHERE salary = 12000;
```

```
SELECT employee_name, company_name  
FROM works  
WHERE salary  $\geq$  12000;
```

```
SELECT employee_name, company_name  
FROM works  
WHERE salary < 12000;
```

h) Find the names, streets and cities of all employees who work for Agrani.

```
SELECT e.employee_name, e.street, e.city  
FROM employee e  
JOIN works w ON e.employee_name = w.employee_name
```

WHERE w.company_name = 'Agrani';

**i) Find the names, streets and cities of all employees who earn
>=10000.**

SELECT e.employee_name, e.street, e.city

FROM employee e

JOIN works w ON e.employee_name = w.employee_name

WHERE w.salary >= 10000;

**j) Find the names, company and salary of all employees who live in
Rajshahi city.**

SELECT e.employee_name, w.company_name, w.salary

FROM employee e

JOIN works w ON e.employee_name = w.employee_name

WHERE e.city = 'Rajshahi';

**k) Find the names, streets, cities and companies of all employees who
earn >=10000.**

SELECT e.employee_name, e.street, e.city, w.company_name

FROM employee e

JOIN works w ON e.employee_name = w.employee_name

WHERE w.salary >= 10000;

l) Find the names, streets and cities of all employees who work for Sonali and earn more than 12000.

```
SELECT e.employee_name, e.street, e.city  
FROM employee e  
JOIN works w ON e.employee_name = w.employee_name  
WHERE w.company_name = 'Sonali' AND w.salary > 12000;
```

m) Find all employees in the database who do not work for Sonali Bank.

```
SELECT e.employee_name  
FROM employee e  
JOIN works w ON e.employee_name = w.employee_name  
WHERE w.company_name != 'Sonali';
```

n) Modify the database so that “Arif” now lives in Natore.

```
UPDATE employee  
SET city = 'Natore'  
WHERE employee_name = 'Arif';
```

o) Give all employees of “Agrani” Bank 10 percent salary raise.

```
UPDATE works  
SET salary = salary * 1.10  
WHERE company_name = 'Agrani';
```

p) Delete all records for sagor in employee table.

UPDATE works

SET salary = salary * 1.10

WHERE company_name = 'Agrani';

q) Add a column manager in the company table

DELETE FROM employee

WHERE employee_name = 'Sagor';