

## Task 1:

use lab8

```
CREATE TABLE department(  
    dept_no int PRIMARY KEY,  
    dept_name varchar(200) NOT NULL  
);
```

```
INSERT INTO department(dept_no, dept_name)  
VALUES (1, 'Sales'), (2, 'IT'), (3, 'Marketing'), (4, 'Human Resources'), (5, 'Accounting'), (6, 'Advertising');
```

```
CREATE TABLE employee(  
    emp_no int PRIMARY KEY,  
    first_name varchar(50) NOT NULL,  
    last_name varchar(50) NOT NULL,  
    hire_date date NOT NULL,  
    birth_date date NOT NULL  
);
```

```
INSERT INTO employee(emp_no, first_name, last_name, hire_date, birth_date)  
VALUES  
    (1, 'Khalid', 'Muzaffar', '2021-06-01', '1980-12-01'),  
    (2, 'Khadijah', 'Muzaffar', '2020-01-01', '1985-10-05'),  
    (3, 'Chris', 'Brown', '2020-09-01', '1989-04-12'),  
    (4, 'Ester', 'Alsuperman', '2019-03-08', '1988-05-20'),  
    (5, 'Abdul', 'Hamada', '2021-02-15', '1992-10-06'),  
    (6, 'Little', 'Miller', '2022-01-01', '1993-12-22'),  
    (7, 'Robert', 'Johnson', '2020-08-05', '1960-04-15'),  
    (8, 'Abuganda', 'Alwossabi', '2021-05-18', '1986-07-22'),  
    (9, 'Jihan', 'Jones', '2019-06-15', '1960-11-30'),  
    (10, 'Sarah', 'Aljuice', '2022-03-01', '1992-05-18');
```

```
CREATE TABLE dept_emp(  
    emp_no int,  
    dept_no int,  
    from_date date NOT NULL,  
    to_date date NOT NULL,  
    PRIMARY KEY(emp_no, dept_no),  
    FOREIGN KEY(emp_no) REFERENCES employee(emp_no),  
    FOREIGN KEY(dept_no) REFERENCES department(dept_no)  
);
```

```
INSERT INTO dept_emp(emp_no, dept_no, from_date, to_date)  
VALUES
```

```
(1, 1, '2021-06-01', '2024-06-01'),  
(2, 2, '2020-01-01', '2023-01-01'),  
(3, 3, '2020-09-01', '2023-09-01'),  
(4, 4, '2019-03-08', '2024-03-08'),  
(5, 5, '2021-02-15', '2024-02-15'),  
(6, 6, '2022-01-01', '2025-01-01'),  
(7, 1, '2020-08-05', '2023-08-05'),  
(8, 1, '2021-05-18', '2024-05-18'),  
(9, 2, '2019-06-15', '2022-06-15'),  
(10, 3, '2022-03-01', '2025-03-01');
```

```
CREATE TABLE salary(  
    sal_no int PRIMARY KEY,  
    emp_no int,  
    salary int CHECK (salary >= 5000),  
    FOREIGN KEY(emp_no) REFERENCES employee(emp_no)  
);
```

```
INSERT INTO salary(sal_no, emp_no, salary)  
VALUES
```

```
(1, 1, 6000),  
(2, 2, 7000),  
(3, 3, 7500),
```

```
(4, 4, 8000),  
(5, 5, 9000),  
(6, 6, 8500),  
(7, 7, 8000),  
(8, 8, 7500),  
(9, 9, 8700),  
(10, 10, 9000);
```

## Task 2:

```
use lab8
```

```
SELECT E.*, S.salary  
FROM employee E  
JOIN dept_emp DE ON E.emp_no = DE.emp_no  
JOIN department D ON DE.dept_no = D.dept_no  
JOIN salary S ON E.emp_no = S.emp_no  
WHERE D.dept_name = 'Sales';
```

## Task 3:

```
SELECT D.dept_name, COUNT(*) AS employees_born_in_1960  
FROM employee E  
JOIN dept_emp DE ON E.emp_no = DE.emp_no  
JOIN department D ON DE.dept_no = D.dept_no  
WHERE YEAR(E.birth_date) = 1960  
GROUP BY D.dept_name;
```

## Task 4:

```
SELECT *  
FROM employee  
WHERE hire_date = (SELECT MIN(hire_date) FROM employee);
```

## Task 5:

```
CREATE FUNCTION GetFullName (@FirstName VARCHAR(50), @LastName VARCHAR(50))
```

```
RETURNS VARCHAR(101)
```

```
AS
```

```
BEGIN
```

```
    DECLARE @FullName VARCHAR(101);
```

```
    SET @FullName = @FirstName + ' ' + @LastName;
```

```
    RETURN @FullName;
```

```
END;
```

```
GO
```

```
SELECT emp_no, dbo.GetFullName(first_name, last_name) AS Full_Name
```

```
FROM employee;
```