

SQL PRACTICE

1.) Write a query to insert a new employee into the Employees table with values (1, 'John', 'HR', 50000).

QUERY:

create database office;

use office;

create table employee(Id int,Name varchar(20),Role varchar(20),Salary int);

select*from employee;

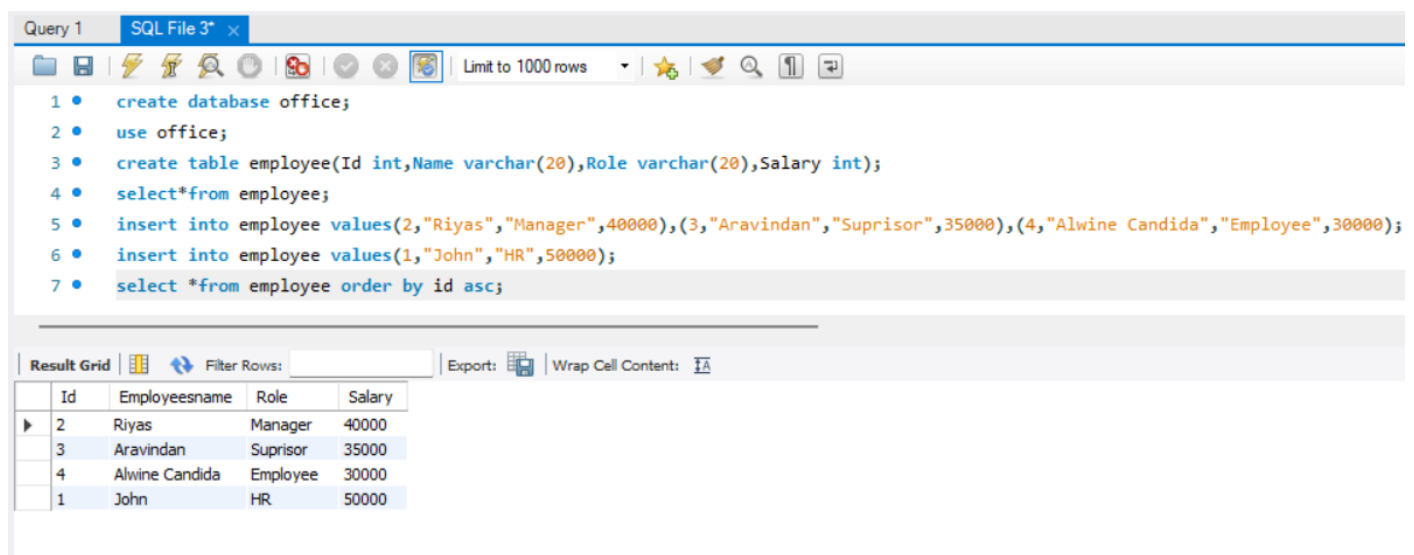
insert into employee

values(2,"Riyas","Manager",40000),(3,"Aravindan","Suprison",35000),(4,"Alwine Candida","Employee",30000);

insert into employee values(1,"John","HR",50000);

select *from employee order by id asc;

QUERY WITH OUTPUT:



The screenshot shows a SQL IDE window titled 'Query 1' with a tab 'SQL File 3*'. The query editor contains the following SQL code:

```
1 • create database office;
2 • use office;
3 • create table employee(Id int,Name varchar(20),Role varchar(20),Salary int);
4 • select*from employee;
5 • insert into employee values(2,"Riyas","Manager",40000),(3,"Aravindan","Suprison",35000),(4,"Alwine Candida","Employee",30000);
6 • insert into employee values(1,"John","HR",50000);
7 • select *from employee order by id asc;
```

Below the query editor, the 'Result Grid' tab is active, displaying the output of the query. The table has four columns: Id, Employeesname, Role, and Salary. The data is sorted by Id in ascending order.

Id	Employeesname	Role	Salary
2	Riyas	Manager	40000
3	Aravindan	Suprison	35000
4	Alwine Candida	Employee	30000
1	John	HR	50000

2.) Write a query to insert multiple rows into a table in a single query.

QUERY:

create database office;

use office;

create table employee(Id int,Name varchar(20),Role varchar(20),Salary int);

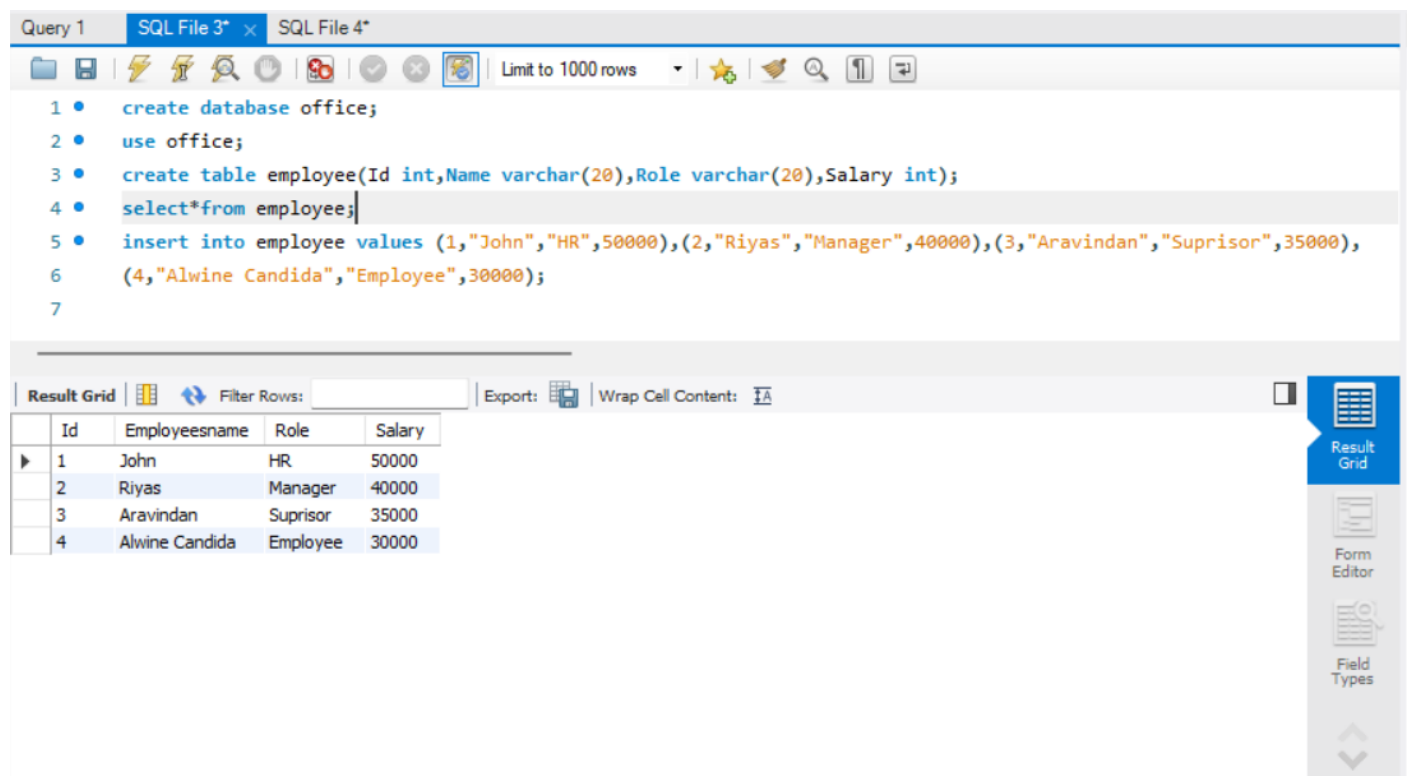
select*from employee;

insert into employee values

(1,"John","HR",50000),(2,"Riyas","Manager",40000),(3,"Aravindan","Suprisor",35000),

(4,"Alwine Candida","Employee",30000);

QUERY WITH OUTPUT:



The screenshot displays a SQL IDE interface. The top toolbar includes icons for file operations, execution, and settings. The query editor contains the following SQL code:

```
1 • create database office;
2 • use office;
3 • create table employee(Id int,Name varchar(20),Role varchar(20),Salary int);
4 • select*from employee;
5 • insert into employee values (1,"John","HR",50000),(2,"Riyas","Manager",40000),(3,"Aravindan","Suprisor",35000),
6   (4,"Alwine Candida","Employee",30000);
7
```

Below the query editor, the 'Result Grid' tab is active, showing the output of the query. The table has four columns: Id, Employeesname, Role, and Salary. The data is as follows:

	Id	Employeesname	Role	Salary
▶	1	John	HR	50000
	2	Riyas	Manager	40000
	3	Aravindan	Suprisor	35000
	4	Alwine Candida	Employee	30000

On the right side of the interface, there are buttons for 'Result Grid', 'Form Editor', and 'Field Types'.

3.) Write an INSERT query where only some columns are provided (not all).

QUERY:

create database office;

use office;

create table employee(Id int,Name varchar(20),Role varchar(20),Salary int);

select*from employee;

insert into employee values

(1,"John","HR",50000),(2,"Riyas","Manager",40000),(3,"Aravindan","Suprison",35000),

(4,"Alwine Candida","Employee",30000);

insert into employee (id,Employeesname)value(5,"Abilash");

QUERY WITH OUTPUT:

The screenshot shows a SQL query editor with the following code:

```
1 • create database office;
2 • use office;
3 • create table employee(Id int,Name varchar(20),Role varchar(20),Salary int);
4 • select*from employee;
5 • insert into employee values (1,"John","HR",50000),(2,"Riyas","Manager",40000),(3,"Aravindan","Suprison",35000),
6 • (4,"Alwine Candida","Employee",30000);
7 • insert into employee (id,Employeesname)value(5,"Abilash");
```

Below the query editor, the 'Result Grid' is displayed, showing the output of the query. The grid has columns: Id, Employeesname, Role, and Salary. The data is as follows:

	Id	Employeesname	Role	Salary
1	1	John	HR	50000
2	2	Riyas	Manager	40000
3	3	Aravindan	Suprison	35000
4	4	Alwine Candida	Employee	30000
5	5	Abilash	NULL	NULL

4.)Write a query to update the salary of an employee with ID = 101 to 60000.

QUERY:

create database office;

use office;

create table employee(Id int,Name varchar(20),Role varchar(20),Salary int);

select*from employee;

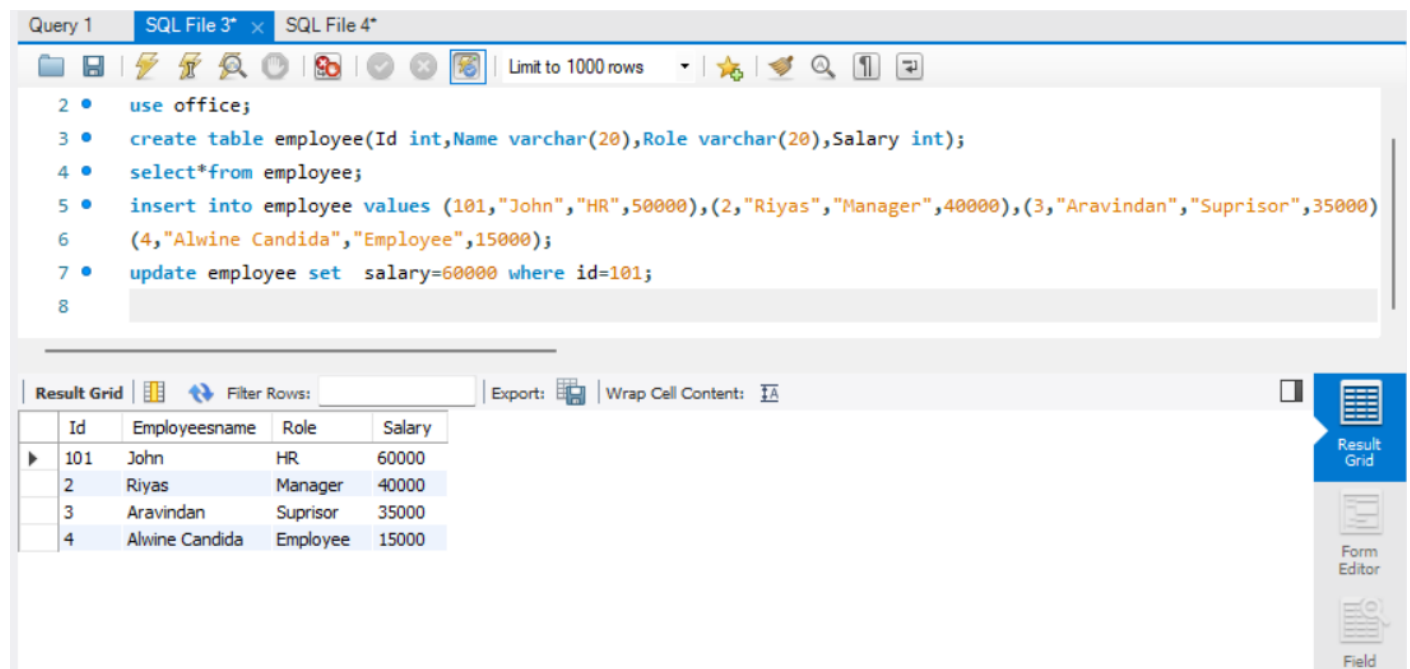
insert into employee values

(101,"John","HR",50000),(2,"Riyas","Manager",40000),(3,"Aravindan","Suprison",35000),

(4,"Alwine Candida","Employee",15000);

update employee set salary=60000 where id=101;

QUERY WITH OUTPUT:



The screenshot shows a SQL IDE interface with a query editor and a result grid. The query editor contains the following SQL code:

```
2 • use office;
3 • create table employee(Id int,Name varchar(20),Role varchar(20),Salary int);
4 • select*from employee;
5 • insert into employee values (101,"John","HR",50000),(2,"Riyas","Manager",40000),(3,"Aravindan","Suprison",35000)
6 (4,"Alwine Candida","Employee",15000);
7 • update employee set salary=60000 where id=101;
8
```

The result grid displays the output of the query, showing a table with 4 rows and 4 columns: Id, Employeesname, Role, and Salary.

	Id	Employeesname	Role	Salary
▶	101	John	HR	60000
	2	Riyas	Manager	40000
	3	Aravindan	Suprison	35000
	4	Alwine Candida	Employee	15000

5.)Update the department of all employees from 'Sales' to 'Marketing'.

QUERY:

create database office;

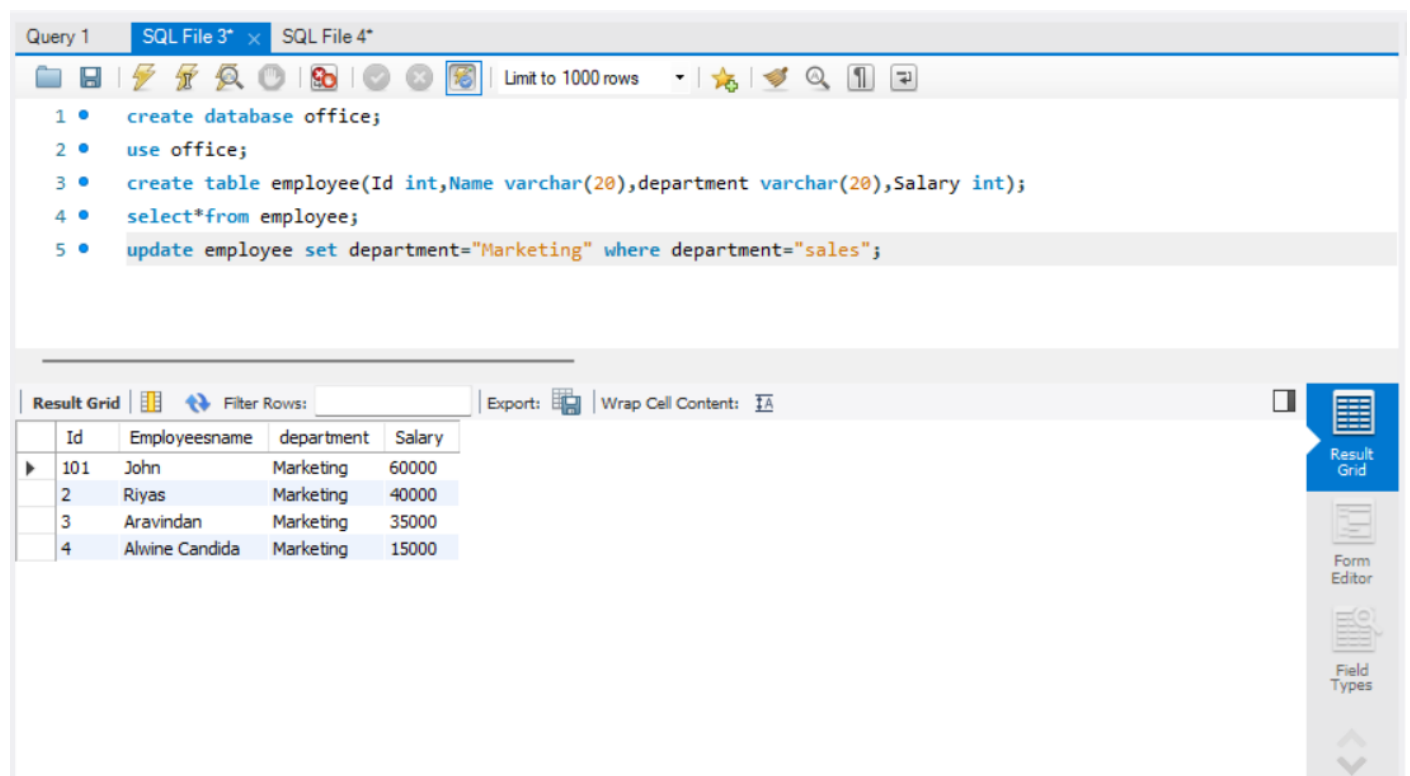
use office;

create table employee(Id int,Name varchar(20),department varchar(20),Salary int);

select*from employee;

update employee set department="Marketing" where department="sales";

QUERY WITH OUTPUT:



The screenshot displays a SQL query editor interface. The top toolbar includes icons for file operations, execution, and settings. The query text area contains five lines of SQL code: creating a database, using it, creating a table, selecting all data, and updating the department. Below the query, the 'Result Grid' tab is active, showing a table with four columns: Id, Employeesname, department, and Salary. The table contains four rows of data, all with the department 'Marketing'. The right sidebar contains icons for 'Result Grid', 'Form Editor', and 'Field Types'.

```
1 • create database office;
2 • use office;
3 • create table employee(Id int,Name varchar(20),department varchar(20),Salary int);
4 • select*from employee;
5 • update employee set department="Marketing" where department="sales";
```

Id	Employeesname	department	Salary
101	John	Marketing	60000
2	Riyas	Marketing	40000
3	Aravindan	Marketing	35000
4	Alwine Candida	Marketing	15000

6.) Increase salary by 10% for all employees in the 'IT' department.

QUERY:

create database office;

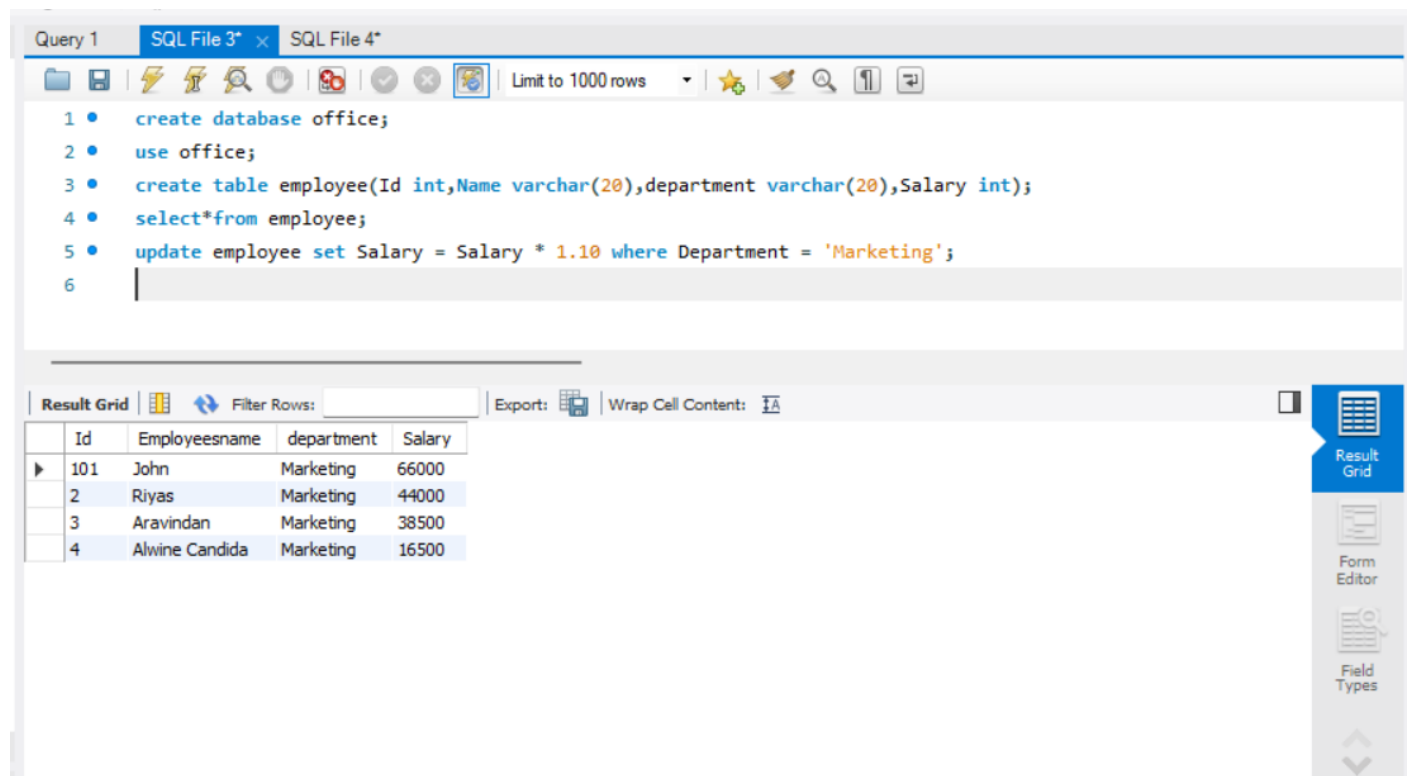
use office;

create table employee(Id int,Name varchar(20),department varchar(20),Salary int);

select*from employee;

update employee set Salary = Salary * 1.10 where Department = 'Marketing';

QUERY WITH OUTPUT:



The screenshot shows a SQL IDE interface. The top pane displays a query with six lines of SQL code. The bottom pane shows the 'Result Grid' with four rows of data. The query is as follows:

```
1 • create database office;
2 • use office;
3 • create table employee(Id int,Name varchar(20),department varchar(20),Salary int);
4 • select*from employee;
5 • update employee set Salary = Salary * 1.10 where Department = 'Marketing';
6 •
```

The 'Result Grid' displays the following data:

	Id	Employeesname	department	Salary
▶	101	John	Marketing	66000
	2	Riyas	Marketing	44000
	3	Aravindan	Marketing	38500
	4	Alwine Candida	Marketing	16500

7.) Write a query to update multiple columns in a table using a single statement.

QUERY:

```

create database office;

use office;

create table employee(Id int,Name varchar(20),department varchar(20),Salary int);

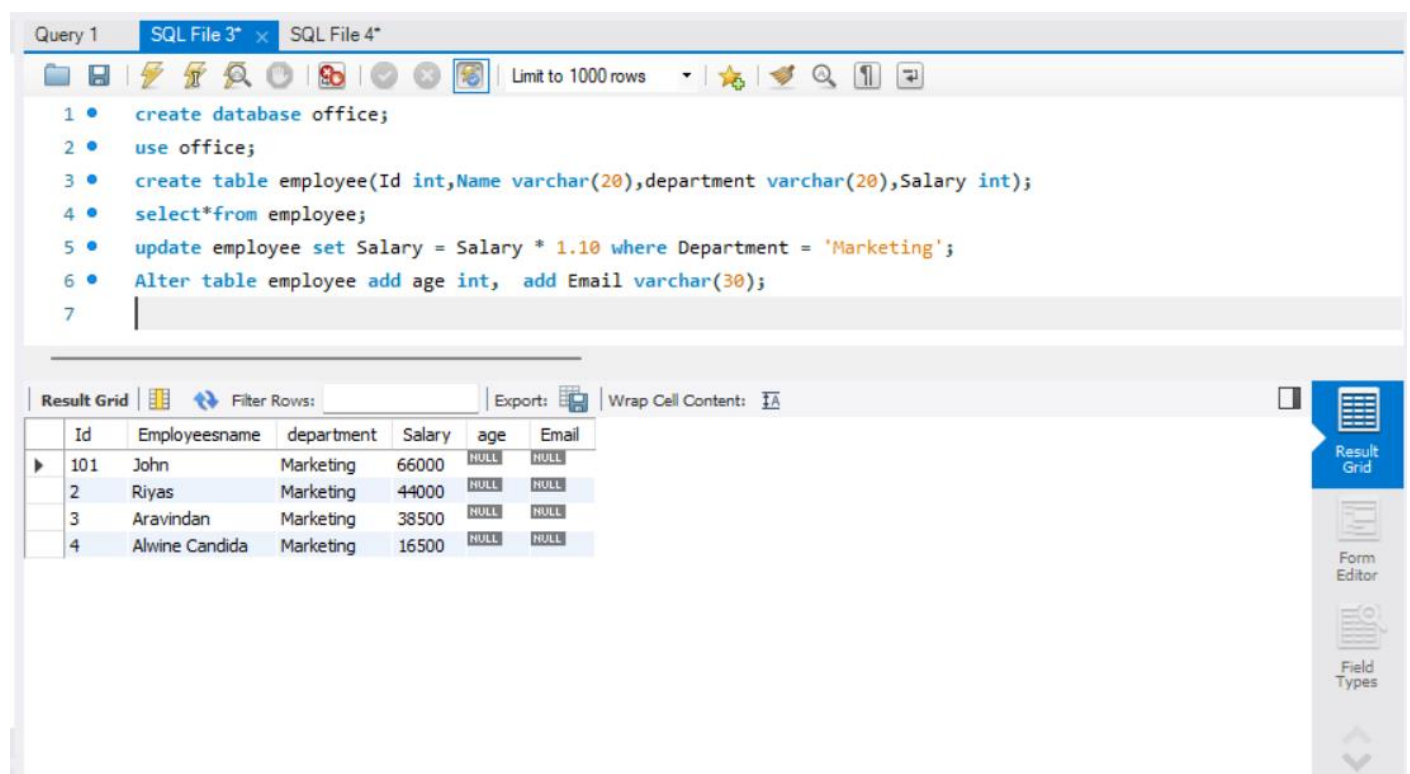
select*from employee;

update employee set Salary = Salary * 1.10 where Department = 'Marketing';

Alter table employee add age int, add Email varchar(30);

```

QUERY WITH OUTPUT:



The screenshot shows a SQL IDE interface. The top window, titled 'Query 1', contains the following SQL commands:

```

1 • create database office;
2 • use office;
3 • create table employee(Id int,Name varchar(20),department varchar(20),Salary int);
4 • select*from employee;
5 • update employee set Salary = Salary * 1.10 where Department = 'Marketing';
6 • Alter table employee add age int, add Email varchar(30);
7 •

```

Below the query window is the 'Result Grid' showing the output of the query. It displays a table with 7 columns: Id, Employeesname, department, Salary, age, and Email. The data is as follows:

Id	Employeesname	department	Salary	age	Email
101	John	Marketing	66000	NULL	NULL
2	Riyas	Marketing	44000	NULL	NULL
3	Aravindan	Marketing	38500	NULL	NULL
4	Alwine Candida	Marketing	16500	NULL	NULL

8. Write a query to delete a record from the Employees table where ID = 5.

QUERY:

```

create database office;

use office;

create table employee(Id int,Name varchar(20),department varchar(20),Salary int);

select*from employee;

update employee set Salary = Salary * 1.10 where Department = 'Marketing';

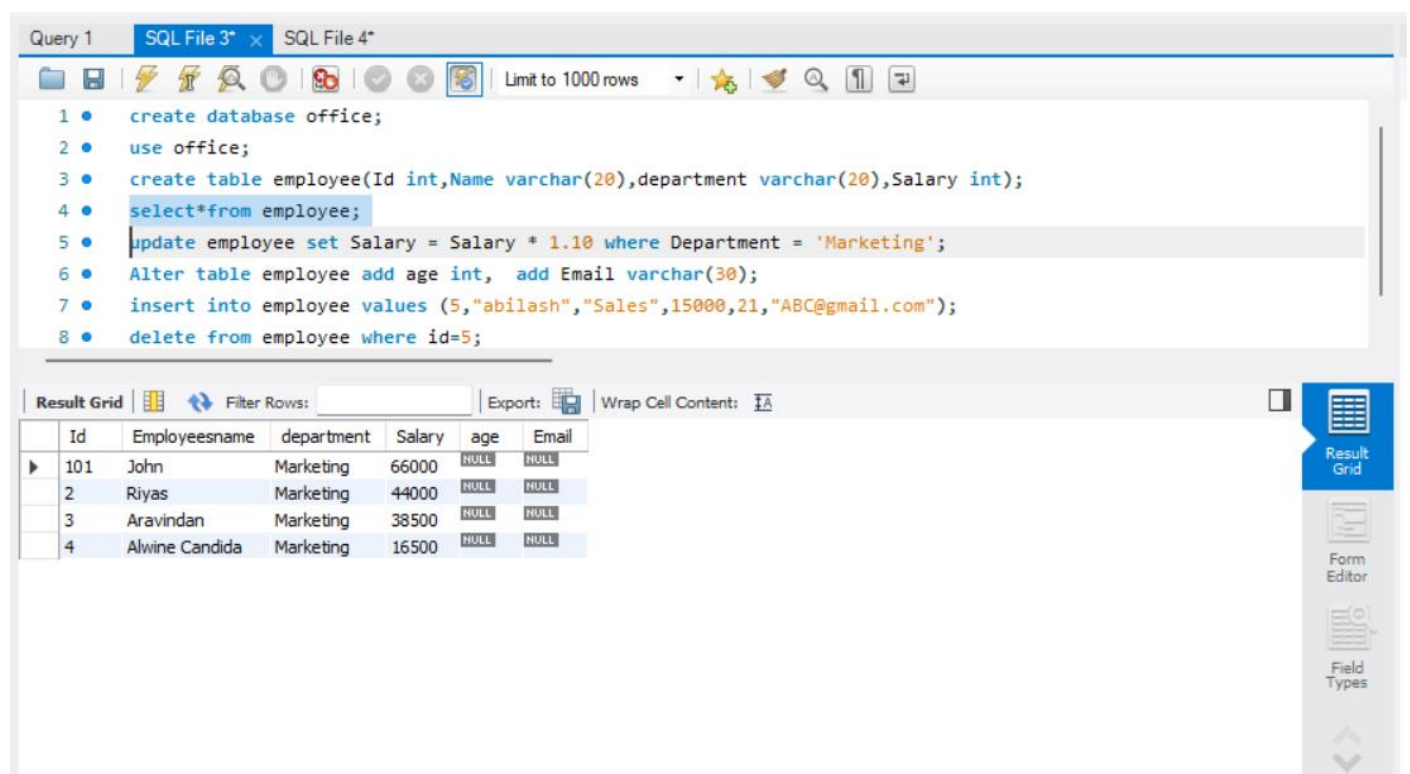
Alter table employee add age int, add Email varchar(30);

insert into employee values (5,"abilash","Sales",15000,21,"ABC@gmail.com");

delete from employee where id=5;

```

QUERY WITH OUTPUT:



The screenshot shows a SQL IDE interface. The top toolbar includes icons for file operations, execution, and a 'Limit to 1000 rows' dropdown. The query window contains the following SQL statements:

- 1 • create database office;
- 2 • use office;
- 3 • create table employee(Id int,Name varchar(20),department varchar(20),Salary int);
- 4 • select*from employee;
- 5 • update employee set Salary = Salary * 1.10 where Department = 'Marketing';
- 6 • Alter table employee add age int, add Email varchar(30);
- 7 • insert into employee values (5,"abilash","Sales",15000,21,"ABC@gmail.com");
- 8 • delete from employee where id=5;

Below the query window is the 'Result Grid' section. It includes a 'Filter Rows' input field, an 'Export' button, and a 'Wrap Cell Content' checkbox. The result grid displays the following data:

	Id	Employeesname	department	Salary	age	Email
▶	101	John	Marketing	66000	NULL	NULL
	2	Riyas	Marketing	44000	NULL	NULL
	3	Aravindan	Marketing	38500	NULL	NULL
	4	Alwine Candida	Marketing	16500	NULL	NULL

On the right side of the interface, there are buttons for 'Result Grid', 'Form Editor', and 'Field Types'.

9.) Delete all employees whose department is 'HR'.

QUERY:

```

create database office;

use office;

```



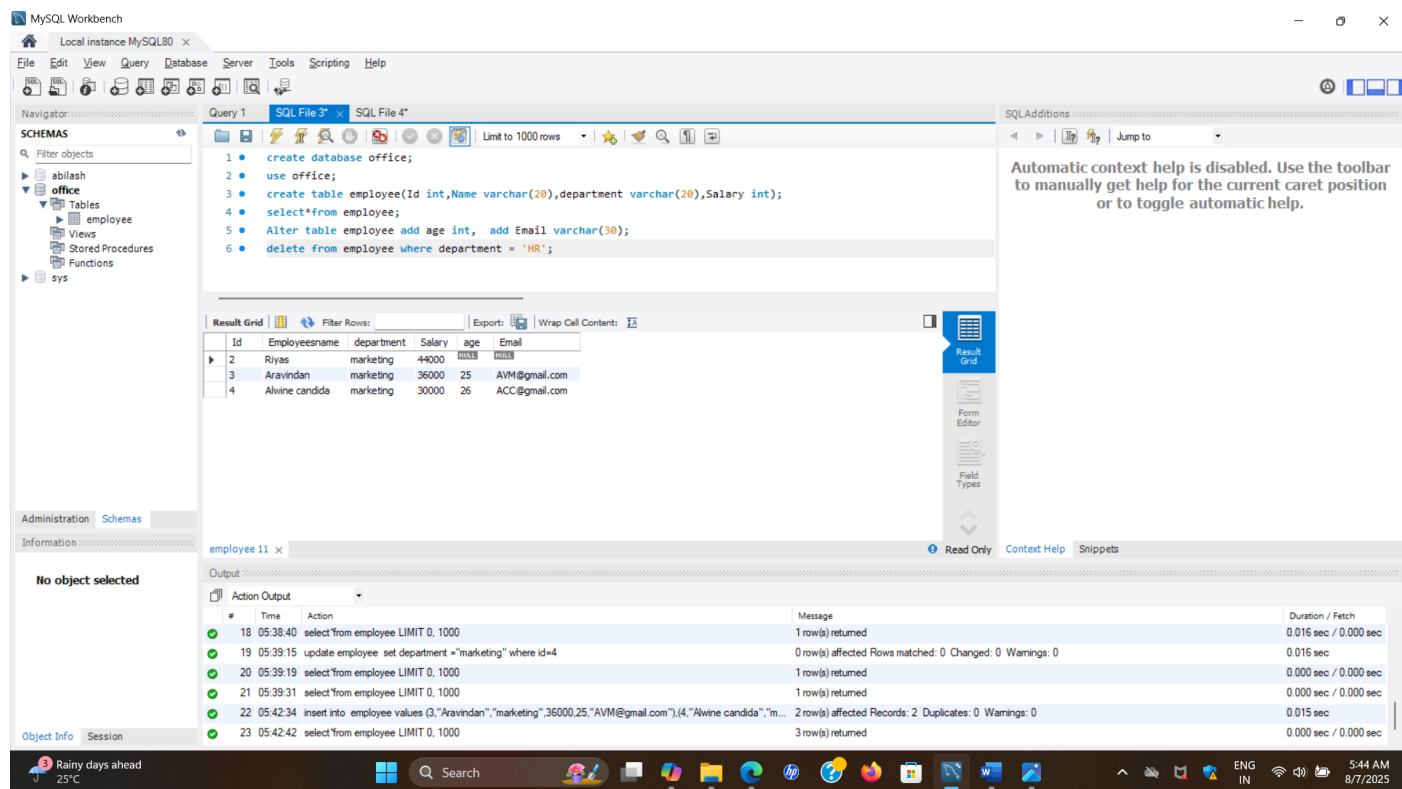
```
create table employee(Id int,Name varchar(20),department varchar(20),Salary int);

select*from employee;

Alter table employee add age int, add Email varchar(30);

delete from employee where department = 'HR';
```

QUERY WITH OUTPUT:



The screenshot shows the MySQL Workbench interface. The 'Query' tab is active, displaying a SQL script with six statements. The 'Result Grid' shows the output of the first three statements: a list of employees with columns Id, Employeesname, department, Salary, age, and Email. The 'Output' tab at the bottom shows the execution log with timestamps, actions, messages, and durations.

Query 1:

```
1 • create database office;
2 • use office;
3 • create table employee(Id int,Name varchar(20),department varchar(20),Salary int);
4 • select*from employee;
5 • Alter table employee add age int, add Email varchar(30);
6 • delete from employee where department = 'HR';
```

Result Grid:

	Id	Employeesname	department	Salary	age	Email
2	Riyas	marketing	44000			
3	Aravindan	marketing	36000	25		AVM@gmail.com
4	Alvine candida	marketing	30000	26		ACC@gmail.com

Output:

#	Time	Action	Message	Duration / Fetch
18	05:38:40	select*from employee LIMIT 0, 1000	1 row(s) returned	0.016 sec / 0.000 sec
19	05:39:15	update employee set department = "marketing" where id=4	0 row(s) affected Rows matched: 0 Changed: 0 Warnings: 0	0.016 sec
20	05:39:19	select*from employee LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec
21	05:39:31	select*from employee LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec
22	05:42:34	insert into employee values (3,"Aravindan","marketing",36000,25,"AVM@gmail.com");(4,"Alvine candida","m...	2 row(s) affected Records: 2 Duplicates: 0 Warnings: 0	0.015 sec
23	05:42:42	select*from employee LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec

10. Delete all records from a table but keep the structure.

QUERY:

```
create database office;

use office;

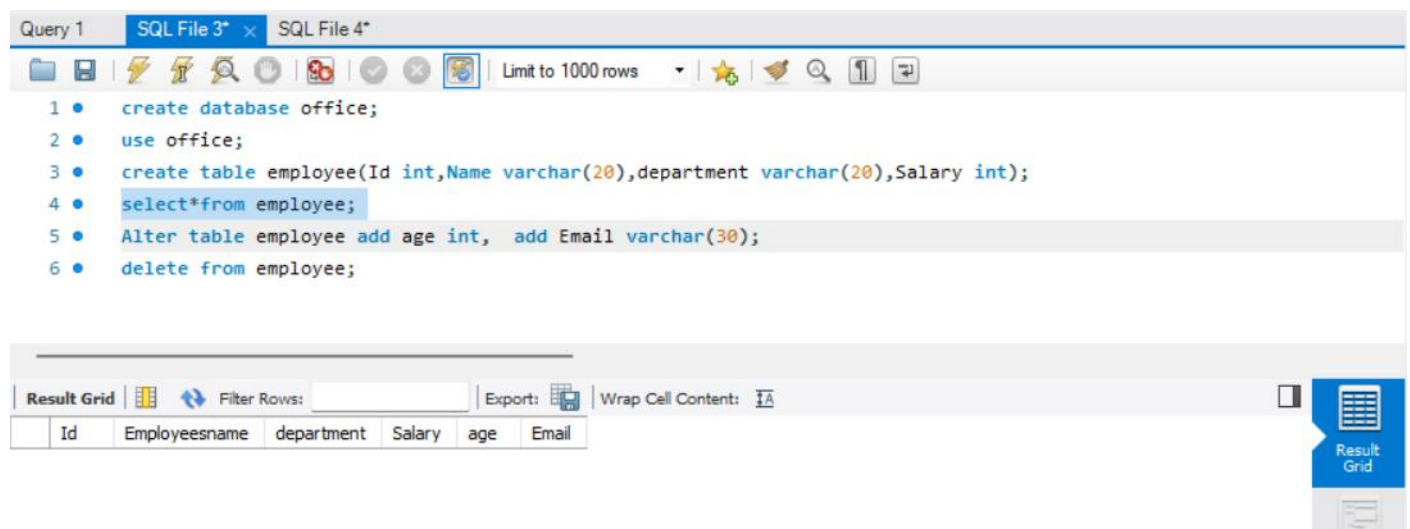
create table employee(Id int,Name varchar(20),department varchar(20),Salary int);
```

select*from employee;

Alter table employee add age int, add Email varchar(30);

delete from employee;

QUERY WITH OUTPUT:



The screenshot shows a SQL IDE interface. The top bar has tabs for 'Query 1', 'SQL File 3*', and 'SQL File 4*'. Below the tabs is a toolbar with various icons. The main area is a query editor with the following SQL statements:

```
1 • create database office;
2 • use office;
3 • create table employee(Id int,Name varchar(20),department varchar(20),Salary int);
4 • select*from employee;
5 • Alter table employee add age int, add Email varchar(30);
6 • delete from employee;
```

Below the query editor is a 'Result Grid' section. It includes a 'Filter Rows:' input field, an 'Export:' button, and a 'Wrap Cell Content:' checkbox. The result grid itself is empty, showing only the column headers: 'Id', 'Employeesname', 'department', 'Salary', 'age', and 'Email'. On the right side of the result grid, there is a 'Result Grid' button.

12. Write a query to create a table called Students with columns: ID, Name, Age, and Email.

QUERY:

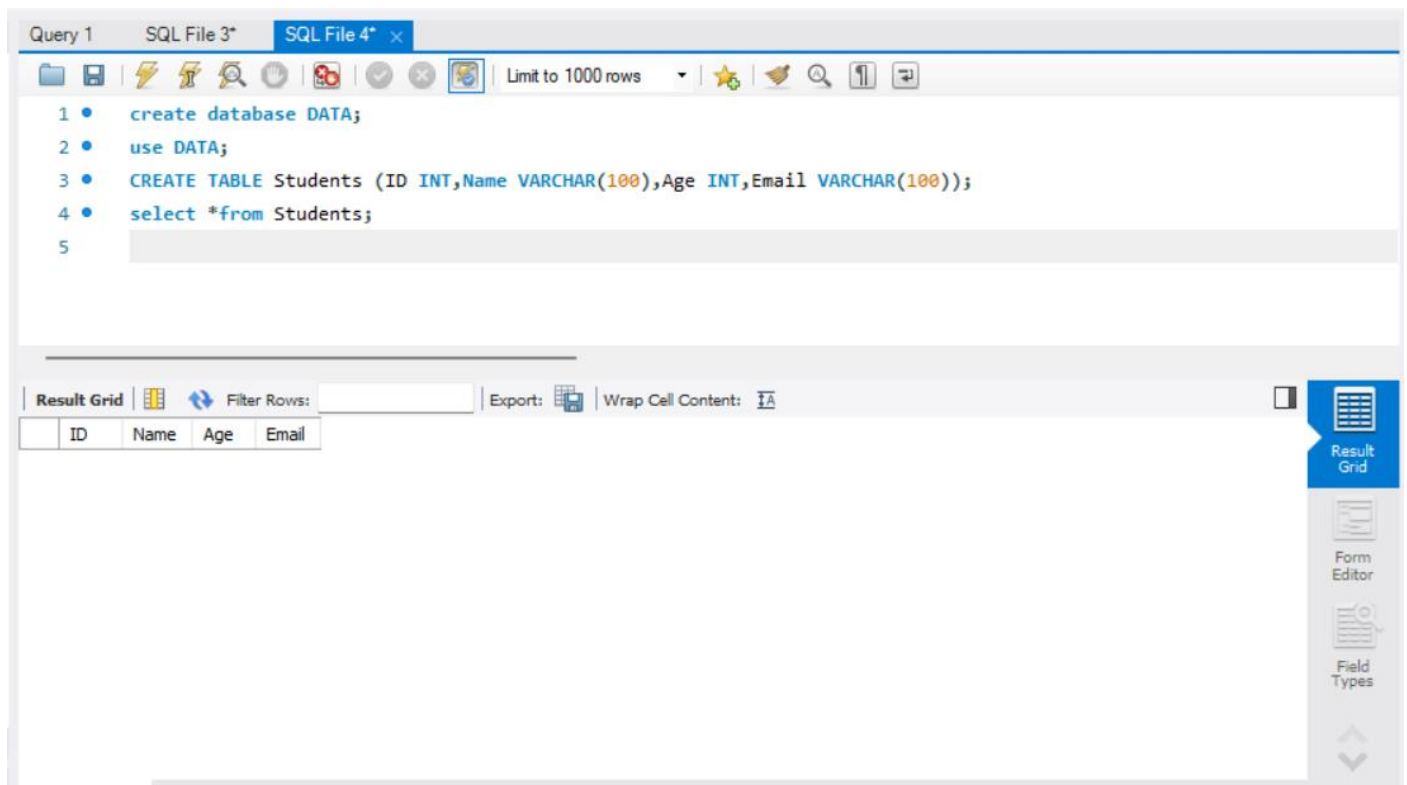
create database DATA;

use DATA;

CREATE TABLE Students (ID INT,Name VARCHAR(100),Age INT,Email VARCHAR(100));

select *from Students;

QUERY WITH OUTPUT:



21. Write a query to add a new column DOB of type DATE to the Employees table.

QUERY:

create database DATA;

use DATA;

CREATE TABLE Students (ID INT,Name VARCHAR(100),Age INT,Email VARCHAR(100));

select *from Students;

alter table Students add DOB int;

QUERY WITH OUTPUT:

The screenshot shows a SQL IDE interface with a query editor and a result grid. The query editor contains the following SQL commands:

```
1 • create database DATA;  
2 • use DATA;  
3 • CREATE TABLE Students (ID INT,Name VARCHAR(100),Age INT,Email VARCHAR(100));  
4 • select *from Students;  
5 • alter table Students add DOB int;  
6
```

The result grid is currently empty, showing only the column headers: ID, Name, Age, Email, and DOB. The interface includes a toolbar with various icons for file operations, a 'Limit to 1000 rows' dropdown, and a 'Filter Rows' input field. The right sidebar contains icons for 'Result Grid', 'Form Editor', and 'Field Types'.

ID	Name	Age	Email	DOB
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