

DEPARTMENT OF MECHATRONICS

SQL

ASSIGNMENT -1

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YEAR/SEMESTER	IV/VII
ASSIGNMENT NUMBER	1

SQL ASSIGNMENT-1

Q1. Increase salary by 10% for all employees in the 'IT' department.

Query:

```
create table student(id int,name varchar(100),dept varchar(100),salary float);
```

```
insert into student values(1,"Riy","IT",40000),(2,"Faz","IT",89000)
```

```
,(3,"kailash","Finance",78000);
```

```
select * from student
```

```
update student set salary=salary*1.10 where dept="IT";
```

Result Grid				
Filter Rows:				
	id	name	dept	salary
▶	1	Riy	IT	40000
	2	Faz	IT	89000
	3	kailash	Finance	78000

Q2. Delete all employees whose department is 'HR'.

Query:

```
create table studenrt(id int,name varchar(100),dept varchar(100),salary float);
```

```
insert into studenrt values(1,"Riy","IT",40000),(2,"Faz","IT",89000)
```

```
,(3,"kailash","Finance",78000),(4,"Abilash","HR",98000);
```

```
select * from student
```

```
DELETE FROM student
```

```
WHERE dept = 'HR';
```

```
SELECT * FROM student;
```

	id	name	dept	salary
▶	1	Riy	IT	40000
	2	Faz	IT	89000
	3	kailash	Finance	78000
	4	Abilash	HR	98000

Result Grid				
				Filter Rows:
	id	name	dept	salary
▶	1	Riy	IT	40000
	2	Faz	IT	89000
	3	kailash	Finance	78000

Q3. Write a query to delete a record from the Employees table where ID = 5.

Query:

```
create table studentr1(id int,name varchar(100),dept varchar(100),salary float);
```

```
insert into studentr1 values(1,"Riy","IT",40000),(2,"Faz","IT",89000)
```

```
,(3,"kailash","Finance",78000),(4,"Abilash","HR",98000),(5,"deepak","HR",40000);
```

```
delete from studentr1 where id=5;
```

```
select * from studentr1
```

	id	name	dept	salary
▶	1	Riy	IT	40000
	2	Faz	IT	89000
	3	kailash	Finance	78000
	4	Abilash	HR	98000
	5	deepak	HR	40000

	id	name	dept	salary
▶	1	Riy	IT	40000
	2	Faz	IT	89000
	3	kailash	Finance	78000
	4	Abilash	HR	98000

Q4. Write a query to update multiple columns in a table using a single statement.

Query:

```
create table studentr1(id int,name varchar(100),dept varchar(100),salary float);
```

```
insert into studentr1 values(1,"Riy","IT",40000),(2,"Faz","IT",89000)
```

```
,(3,"kailash","Finance",78000),(4,"Abilash","HR",98000),(5,"deepak","HR",40000);
```

```
UPDATE studentr1
```

```
SET name = 'Riy', salary = 55000
```

```
WHERE id = 1;
```

```
select * from studentr1
```

Result Grid				
Filter Rows:				
	id	name	dept	salary
▶	1	Riy	IT	55000
	2	Faz	IT	89000
	3	kailash	Finance	78000
	4	Abilash	HR	98000

Q5. Delete all records from a table but keep the structure.

Query:

```
create table studentr1(id int,name varchar(100),dept varchar(100),salary float);
```

```
insert into studentr1 values(1,"Riy","IT",40000),(2,"Faz","IT",89000)
```

```
,(3,"kailash","Finance",78000),(4,"Abilash","HR",98000),(5,"deepak","HR",40000);
```

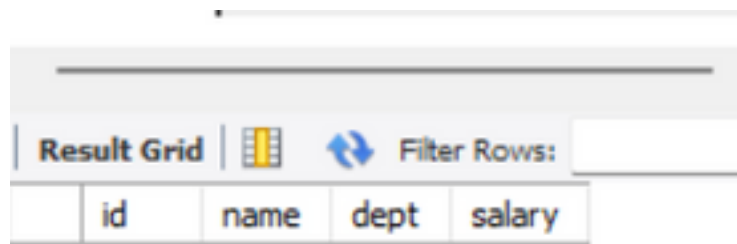
```
UPDATE studentr1
```

```
SET name = 'Riy', salary = 55000
```

```
WHERE id = 1;
```

delete from studentr1;

select * from studentr1



The screenshot shows a database interface with a 'Result Grid' tab. Below the tab, there is a table with four columns: 'id', 'name', 'dept', and 'salary'. The table is currently empty.

	id	name	dept	salary
--	----	------	------	--------

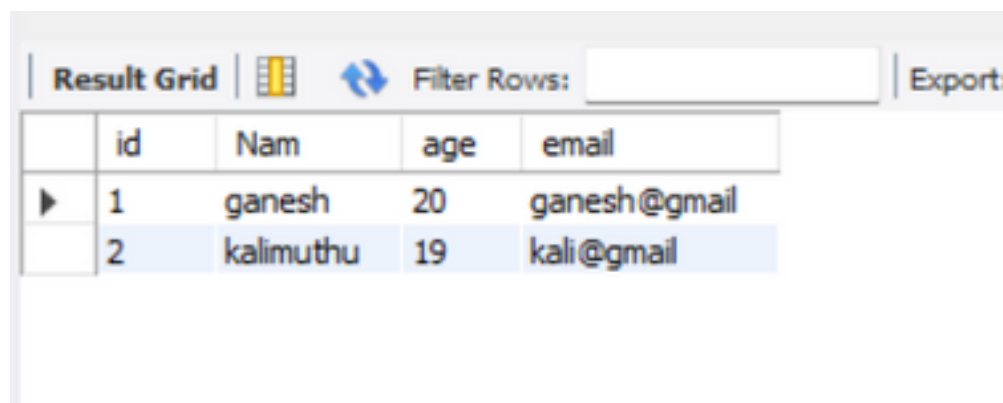
Q6. Write a query to create a table called Students with columns: ID, Name, Age, and Email

Query:

```
create table Students(id int,Nam varchar(100),age int,email varchar(100));
```

```
insert into Students values(1,"ganesh",20,"ganesh@gmail"),(2,"kalimuthu",19,"kali@gmail");
```

```
select * from Students
```



The screenshot shows a database interface with a 'Result Grid' tab. Below the tab, there is a table with four columns: 'id', 'Nam', 'age', and 'email'. The table contains two rows of data.

	id	Nam	age	email
▶	1	ganesh	20	ganesh@gmail
	2	kalimuthu	19	kali@gmail

Q7. Create a table and set the default value of the status column to 'Active'.

Query:

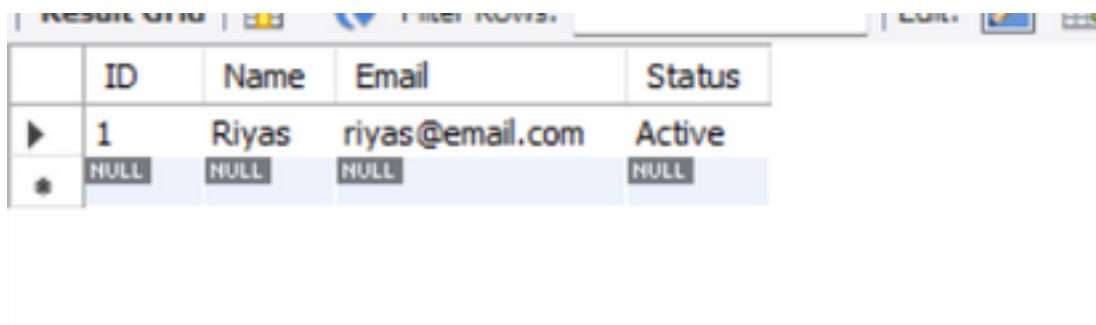
```

CREATE TABLE Users (
    ID INT PRIMARY KEY,
    Name VARCHAR(100),
    Email VARCHAR(100),
    Status VARCHAR(20) DEFAULT 'Active'
);

INSERT INTO Users (ID, Name, Email)
VALUES (1, 'Riyas', 'riyas@email.com');

SELECT * FROM Users;

```



	ID	Name	Email	Status
▶	1	Riyas	riyas@email.com	Active
•	NULL	NULL	NULL	NULL

Q8. Write a query to drop a table named TempData.

Query:

```
create database fan;
```

```
create table tempdata(id int, name varchar(100), age varchar(100));
```

```
insert into tempdata values(11, "tahir", "12");
```

```
drop table tempdata;
```

```
drop data
```

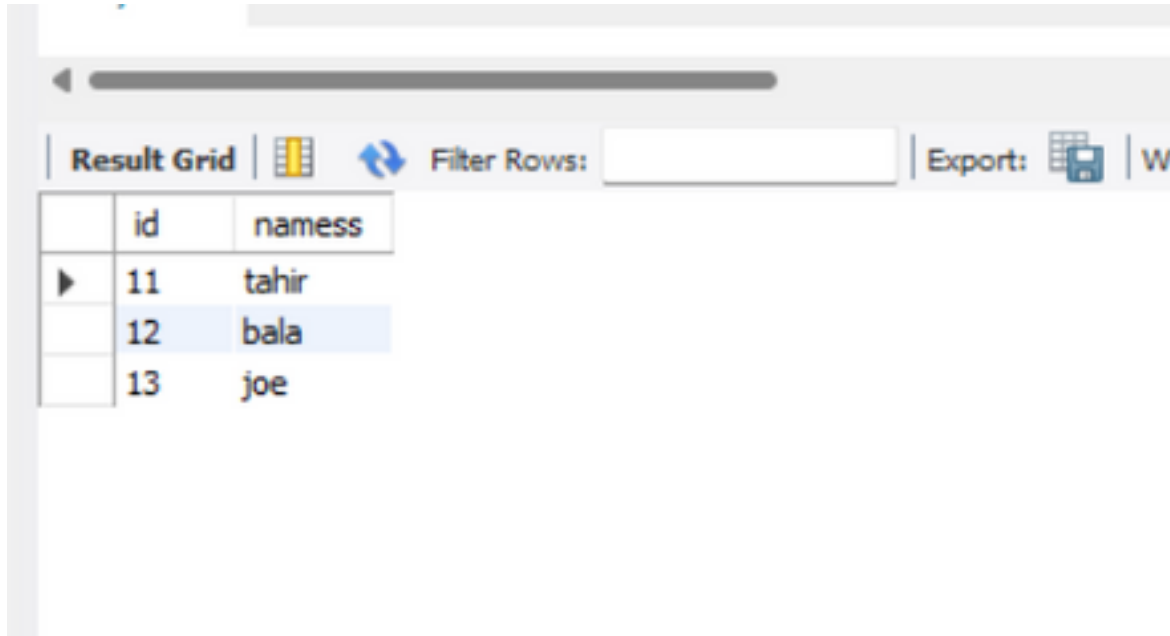
```
create database fan;
```

```
create table tempdat1a(id int,nameess varchar(100),age varchar(100));

insert into tempdat1a values(11,"tahir","12"),(12,"bala","90"),(13,"joe","78");

alter table tempdat1a drop column age;

select * from tempdat1a;
```



The screenshot shows a database query result grid. The grid has two columns: 'id' and 'nameess'. The data is as follows:

	id	nameess
▶	11	tahir
	12	bala
	13	joe

The interface includes a 'Result Grid' tab, a 'Filter Rows' input field, and an 'Export' button.

Q9. Drop all indexes on a given table.

Query:

```
CREATE TABLE Employee4s (  
    ID INT PRIMARY KEY,  
    Name VARCHAR(100),  
    Department VARCHAR(100),  
    Salary FLOAT  
);  
  
CREATE INDEX idx_name ON Employee4s(Name);  
  
CREATE INDEX idx_dept ON Employee4s(Department);  
  
DROP INDEX idx_name ON Employee4s;  
  
DROP INDEX idx_dept ON Employee4s;
```

Q10. Write a query to add a new column DOB of type DATE to the Employees table.

Query:

Create the Employees table

```
CREATE TABLE Employ2ees (
```

```
    ID INT PRIMARY KEY,
```

```
    Name VARCHAR(100),
```

```
    Department VARCHAR(100),
```

```
    Salary FLOAT
```

```
);
```

```
INSERT INTO Employ2ees (ID, Name, Department, Salary) VALUES
```

```
(1, 'Riyas', 'IT', 50000),
```

```
(2, 'Fazil', 'HR', 60000),
```

```
(3, 'Kailash', 'Finance', 70000);
```

```
ALTER TABLE Employ2ees
```

```
ADD DOB DATE;
```

```
UPDATE Employ2ees
```

```
SET DOB = '1995-06-15'
```

```
WHERE ID = 1;
```

```
UPDATE Employ2ees
```

```
SET DOB = '1993-09-20'
```

```
WHERE ID = 2;
```

```
UPDATE Employ2ees
```



```
SET DOB = '1990-01-10'
```

```
WHERE ID = 3;
```

```
select * from Employ2ees
```

Result Grid					
		Filter Rows:		Edit:	
	ID	Name	Department	Salary	DOB
▶	1	Riyas	IT	50000	1995-06-15
	2	Fazil	HR	60000	1993-09-20
	3	Kailash	Finance	70000	1990-01-10
•	NULL	NULL	NULL	NULL	NULL

Q11.Modify the data type of the column Salary from INT to FLOAT.

Query:

```
CREATE TABLE Empl (
```

```
    ID INT PRIMARY KEY,
```

```
    Name VARCHAR(100),
```

```
    Department VARCHAR(100),
```

```
    Salary INT
```

```
);
```

```
INSERT INTO Empl (ID, Name, Department, Salary) VALUES
```

```
(1, 'Riyas', 'IT', 50000),
```

```
(2, 'Fazil', 'HR', 60000),
```

```
(3, 'Kailash', 'Finance', 70000);
```


```
ALTER TABLE Empl
```

modify Salary FLOAT;

UPDATE Empl

SET Salary = Salary * 1.5;

SELECT * FROM Empl;

Result Grid				
Filter Rows: <input type="text"/>				
Edit: 				
	ID	Name	Department	Salary
▶	1	Riyas	IT	55000
	2	Fazil	HR	66000
	3	Kailash	Finance	77000
•	NULL	NULL	NULL	NULL

Q12.Rename a column in a table from fullname to name.

Query:

CREATE TABLE Empl1 (

ID INT PRIMARY KEY,

realname VARCHAR(100),

fullname VARCHAR(100),

Salary INT

);

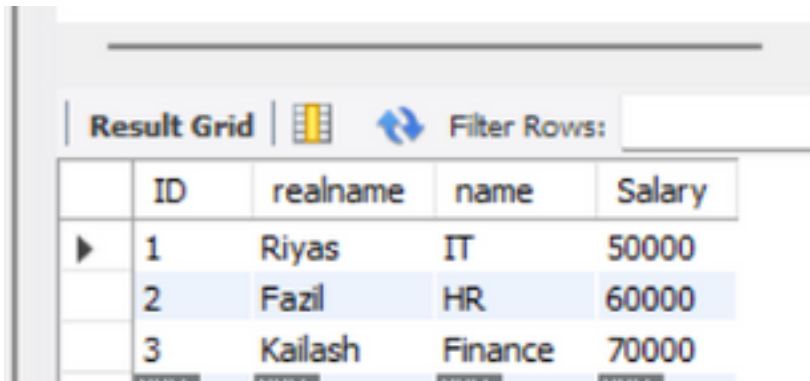
INSERT INTO Empl1 (ID, realname, fullname, Salary) VALUES

(1, 'Riyas', 'IT', 50000),

(2, 'Fazil', 'HR', 60000),

(3, 'Kailash', 'Finance', 70000);

```
select * from Empl1;
```



The screenshot shows a 'Result Grid' interface with a table containing three rows of data. The columns are labeled 'ID', 'realname', 'name', and 'Salary'. The first row has values 1, Riyas, IT, and 50000. The second row has values 2, Fazil, HR, and 60000. The third row has values 3, Kailash, Finance, and 70000. The interface includes a 'Filter Rows' button and a search input field.

	ID	realname	name	Salary
▶	1	Riyas	IT	50000
	2	Fazil	HR	60000
	3	Kailash	Finance	70000

Q13. Rename the table Customers to Clients.

Query:

```
create database yesterday;
```

```
CREATE TABLE Customers (
```

```
    ID INT PRIMARY KEY,
```

```
    Name VARCHAR(100),
```

```
    Email VARCHAR(100)
```

```
);
```

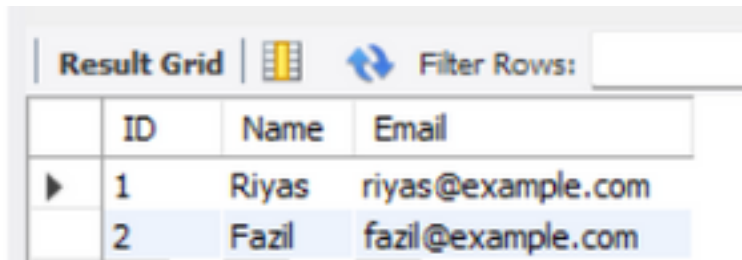
```
INSERT INTO Customers (ID, Name, Email) VALUES
```

```
(1, 'Riyas', 'riyas@example.com'),
```

```
(2, 'Fazil', 'fazil@example.com');
```

```
RENAME TABLE Customers TO Clients;
```

```
SELECT * FROM Clients;
```



The screenshot shows a database interface with a 'Result Grid' tab. It contains a table with four columns: ID, Name, and Email. There are two rows of data. The first row has ID 1, Name Riyas, and Email riyas@example.com. The second row has ID 2, Name Fazil, and Email fazil@example.com. A 'Filter Rows' button is visible at the top right of the grid.

	ID	Name	Email
▶	1	Riyas	riyas@example.com
	2	Fazil	fazil@example.com

Q14. Truncate a table and insert one row back using INSERT.

Query:

```
CREATE TABLE Employees (
```

```
    ID INT PRIMARY KEY,
```

```
    Name VARCHAR(100),
```

```
    Department VARCHAR(50),
```

```
    Salary FLOAT
```

```
);
```

```
INSERT INTO Employees (ID, Name, Department, Salary) VALUES
```

```
(1, 'Riyas', 'IT', 50000),
```

```
(2, 'Fazil', 'HR', 55000),
```

```
(3, 'Kailash', 'Finance', 60000);
```

```
SELECT * FROM Employees;
```

```
TRUNCATE TABLE Employees;
```

```
INSERT INTO Employees (ID, Name, Department, Salary)
VALUES (1, 'Riyas', 'IT', 50000);

SELECT * FROM Employees;
```

Result Grid				
Filter Rows:				
	ID	Name	Department	Salary
▶	1	Riyas	IT	50000
	2	Fazil	HR	55000
	3	Kailash	Finance	60000

After inserting row:

Result Grid				
Filter Rows:				
	ID	Name	Department	Salary
▶	1	Riyas	IT	50000

Q15. Update the department of all employees from 'Sales' to 'Marketing'.

Query:

```
CREATE TABLE Employeees (
```

```
    ID INT,
```

```
    Name VARCHAR(100),
```

```
    Department VARCHAR(100),
```

```
    Salary FLOAT
```

```
);
```

```
INSERT INTO Employeees (ID, Name, Department, Salary) VALUES
```

```
(1, 'Riyas', 'Sales', 45000),
```



```
(2, 'Fazil', 'Sales', 50000),  
(3, 'Kailash', 'IT', 60000),  
(4, 'Dilip', 'HR', 55000),  
(5, 'Bharanee', 'Sales', 47000);
```

```
UPDATE Employees
```

```
SET Department = 'Marketing'
```

```
WHERE Department = 'Sales';
```

```
SELECT * FROM Employees;
```

Result Grid   Filter Rows: <input type="text"/>				
	ID	Name	Department	Salary
▶	1	Riyas	Marketing	45000
	2	Fazil	Marketing	50000
	3	Kailash	IT	60000
	4	Dilip	HR	55000
	5	Bharanee	Marketing	47000