SRI MANAKULA VINAYAGAR
ENGINEERING COLLEGE
(AN AUTONOMOUS INSTITUTION)

DEPARTMENT OF MECHATRONICS

SQL

ASSIGNMENT -1

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YEAR/SEMESTER	IV/VII
ASSIGNMENT NUMBER	1

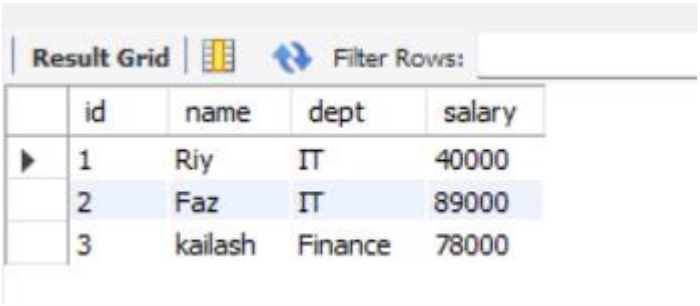
SQL ASSIGNMENT-1

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";
```

Output:



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;
```

Output:

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
```

Output:

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

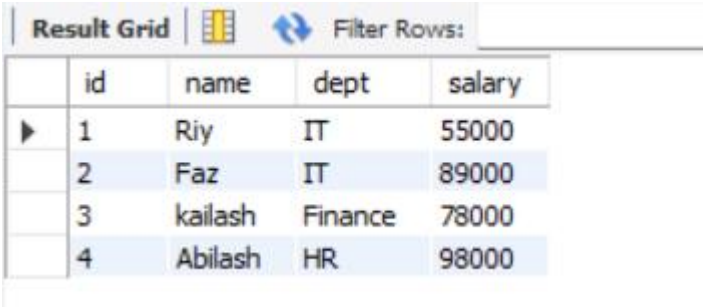
Q4.Write a query to update multiple columns in a table using a single statement.

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
```

Output:



Result Grid | Filter Rows:

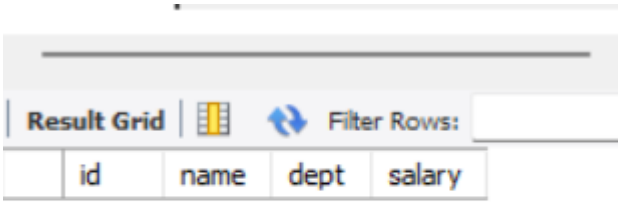
id	name	dept	salary
1	Riy	IT	55000
2	Faz	IT	89000
3	kailash	Finance	78000
4	Abilash	HR	98000

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
```

Output:



Result Grid | Filter Rows:

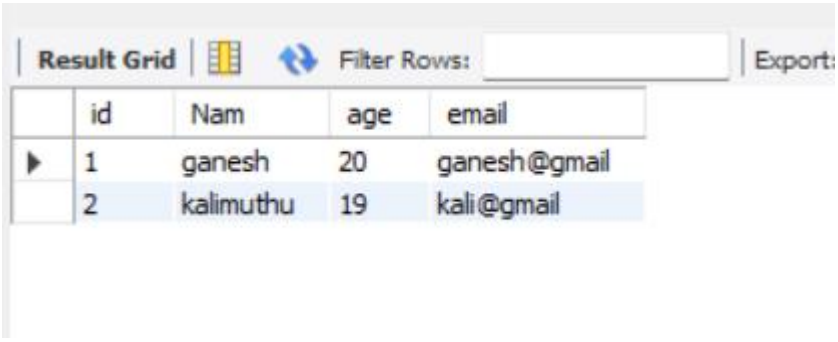
id	name	dept	salary

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
```

Output:


Result Grid | Filter Rows: | Export:

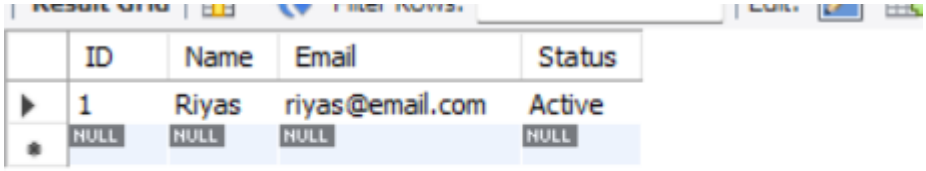
	id	Nam	age	email
▶	1	ganesh	20	ganesh@gmail
	2	kalimuthu	19	kali@gmail

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;
```

Output:



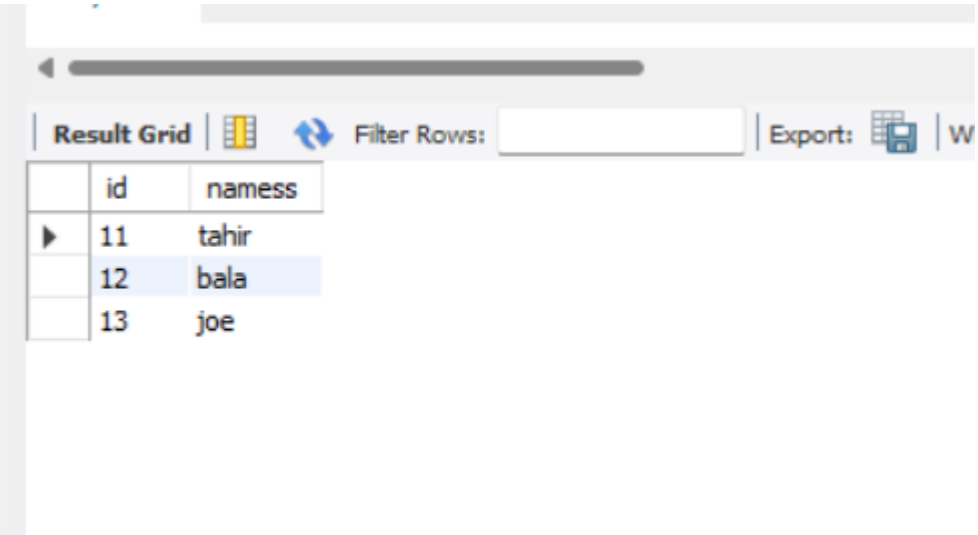
ID	Name	Email	Status
1	Riyas	riyas@email.com	Active
NULL	NULL	NULL	NULL

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

Query:

```
create database fan;

create table tempdata(id int,namess 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,namess 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;
```

Output:



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;
```

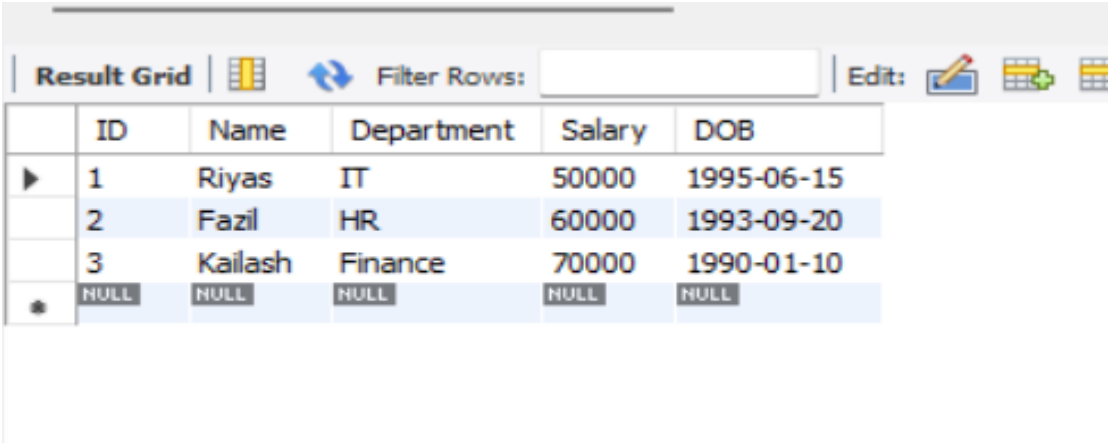
Q10.Write a query to add a new column DOB of type DATE to the Employees table.

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
```

Output:



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

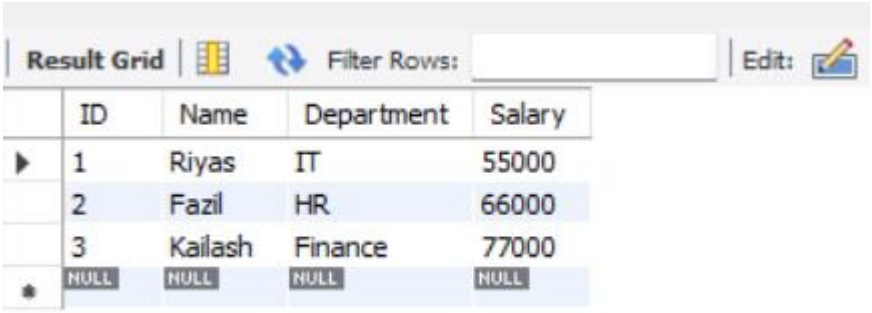
Q11.Modify the data type of the column Salary from INT to FLOAT.

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;

Output:



Result Grid | Filter Rows: | Edit:

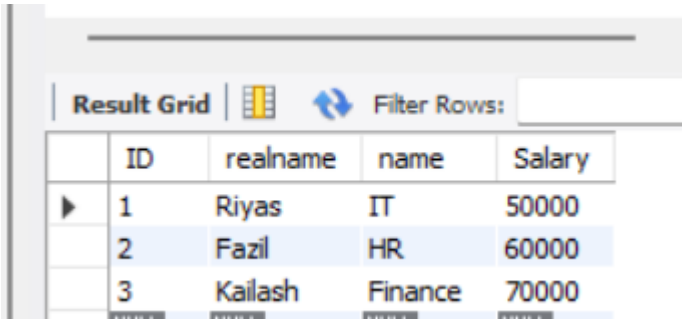
ID	Name	Department	Salary
1	Riyas	IT	55000
2	Fazil	HR	66000
3	Kailash	Finance	77000
NULL	NULL	NULL	NULL

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;
```

Output:



Result Grid | Filter Rows:

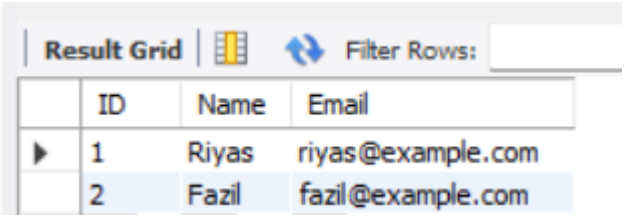
ID	realname	name	Salary
1	Riyas	IT	50000
2	Fazil	HR	60000
3	Kailash	Finance	70000

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;
```

Output:



Result Grid | Filter Rows:

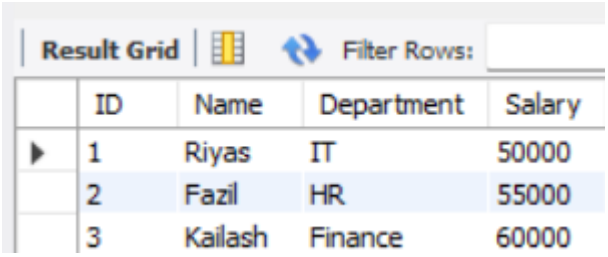
ID	Name	Email
1	Riyas	riyas@example.com
2	Fazil	fazil@example.com

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;
```

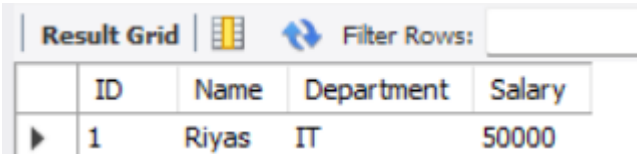
Output:



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

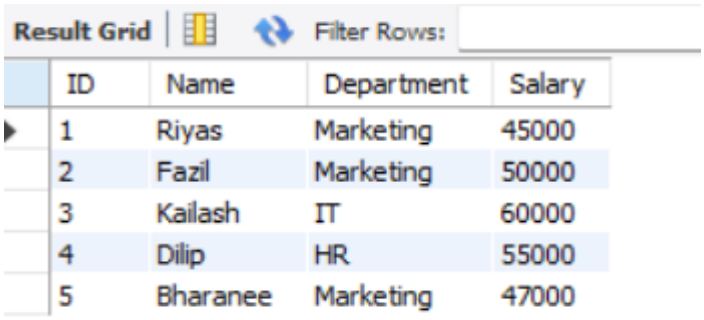
Q15. Update the department of all employees from 'Sales' to 'Marketing'.

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 Employeees
SET Department = 'Marketing'
WHERE Department = 'Sales';
```

SELECT * FROM Employeees;

Output:


Result Grid | Filter Rows:

ID	Name	Department	Salary
1	Riyas	Marketing	45000
2	Fazil	Marketing	50000
3	Kailash	IT	60000
4	Dilip	HR	55000
5	Bharanee	Marketing	47000