Name:- Atish Kumar
Roll No:- 120CS0173
Date:- 09 Feb 2022

DE Lab Assignment 02

1. ADD Column “Job_Code” to Employee Table.

Program:-

```
CREATE DATABASE ASSGN1

USE ASSGN1

CREATE TABLE Employee
(
Employee_ID VARCHAR(50),
Name VARCHAR(50),
Age INT,
Salary INT,
Department VARCHAR(50)
);

INSERT INTO Employee VALUES('EXE1001','Adiya',25,30000,'Executive');
INSERT INTO Employee VALUES('ACC1002','Aditya',28,31000,'Accountant');
INSERT INTO Employee VALUES('SAL1003','Priyanka',30,32000,'Salesman');
INSERT INTO Employee VALUES('EXE1004','Anmol',35,31000,'Executive');
INSERT INTO Employee VALUES('ACC1005','Rahul',31,29000,'Accountant');
INSERT INTO Employee VALUES('SAL1006','Shubham',29,27000,'Salesman')
INSERT INTO Employee VALUES('SAL1007','Sam',33,32000,'Salesman');
INSERT INTO Employee VALUES('SAL1008','Rohan',33,28000,'Salesman');
INSERT INTO Employee VALUES('ACC1009','Priya',23,35000,'Accountant');
INSERT INTO Employee VALUES('EXE1010','Kabir',29,26000,'Executive');

ALTER TABLE Employee ADD job_Code varchar(10);

SELECT * FROM Employee;
```

Output:-

Results Messages

	Employee_ID	Name	Age	Salary	Department	job_Code
1	EXE1001	Adiya	25	30000	Executive	NULL
2	ACC1002	Aditya	28	31000	Accountant	NULL
3	SAL1003	Priyanka	30	32000	Salesman	NULL
4	EXE1004	Anmol	35	31000	Executive	NULL
5	ACC1005	Rahul	31	29000	Accountant	NULL
6	SAL1006	Shubham	29	27000	Salesman	NULL
7	SAL1007	Sam	33	32000	Salesman	NULL
8	SAL1008	Rohan	33	28000	Salesman	NULL
9	ACC1009	Priya	23	35000	Accountant	NULL
10	EXE1010	Kabir	29	26000	Executive	NULL

2. Insert the value “EX01, AC01, SA01, EX02, AC02, SA02, SA03, SA04, AC03, EX03” column Job_Code respectively.

Program:-

```
UPDATE Employee SET job_Code = 'EX01' WHERE Employee_ID = 'EXE1001';
UPDATE Employee SET job_Code = 'AC01' WHERE Employee_ID = 'ACC1002';
UPDATE Employee SET job_Code = 'SA01' WHERE Employee_ID = 'SAL1003';
UPDATE Employee SET job_Code = 'EX02' WHERE Employee_ID = 'EXE1004';
UPDATE Employee SET job_Code = 'AC02' WHERE Employee_ID = 'ACC1005';
UPDATE Employee SET job_Code = 'SA02' WHERE Employee_ID = 'SAL1006';
UPDATE Employee SET job_Code = 'SA03' WHERE Employee_ID = 'SAL1007';
UPDATE Employee SET job_Code = 'SA04' WHERE Employee_ID = 'SAL1008';
UPDATE Employee SET job_Code = 'AC03' WHERE Employee_ID = 'ACC1009';
UPDATE Employee SET job_Code = 'EX03' WHERE Employee_ID = 'EXE1010';

SELECT * FROM Employee;
```

Output:-

Results | Messages

	Employee_ID	Name	Age	Salary	Department	job_Code
1	EXE1001	Adiya	25	30000	Executive	EX01
2	ACC1002	Aditya	28	31000	Accountant	AC01
3	SAL1003	Priyanka	30	32000	Salesman	SA01
4	EXE1004	Anmol	35	31000	Executive	EX02
5	ACC1005	Rahul	31	29000	Accountant	AC02
6	SAL1006	Shubham	29	27000	Salesman	SA02
7	SAL1007	Sam	33	32000	Salesman	SA03
8	SAL1008	Rohan	33	28000	Salesman	SA04
9	ACC1009	Priya	23	35000	Accountant	AC03
10	EXE1010	Kabir	29	26000	Executive	EX03

3. Update the column name of Age to DOB from the Employee Table and also insert the DOB’s of all the employees in ‘DD-MM-YYYY’ format. The values are listed below

Program:-

```
ALTER TABLE Employee DROP Age;

ALTER TABLE Employee ADD DOB DATE;

UPDATE Employee SET DOB = '1997-02-03' WHERE job_Code = 'EX01';
UPDATE Employee SET DOB = '1994-08-01' WHERE job_Code = 'AC01';
UPDATE Employee SET DOB = '1992-11-17' WHERE job_Code = 'SA01';
UPDATE Employee SET DOB = '1987-08-14' WHERE job_Code = 'EX02';
UPDATE Employee SET DOB = '1991-01-31' WHERE job_Code = 'AC02';
UPDATE Employee SET DOB = '1993-05-29' WHERE job_Code = 'SA02';
UPDATE Employee SET DOB = '1989-06-12' WHERE job_Code = 'SA03';
UPDATE Employee SET DOB = '1989-07-06' WHERE job_Code = 'SA04';
UPDATE Employee SET DOB = '1999-02-21' WHERE job_Code = 'AC03';
```

```
UPDATE Employee SET DOB = '1993-09-27' WHERE job_Code = 'EX03';

SELECT * FROM Employee;
```

Output:-

Results | Messages

	Employee_ID	Name	Salary	Department	job_Code	DOB
1	EXE1001	Adiya	30000	Executive	EX01	1997-02-03
2	ACC1002	Aditya	31000	Accountant	AC01	1994-08-01
3	SAL1003	Priyanka	32000	Salesman	SA01	1992-11-17
4	EXE1004	Anmol	31000	Executive	EX02	1987-08-14
5	ACC1005	Rahul	29000	Accountant	AC02	1991-01-31
6	SAL1006	Shubham	27000	Salesman	SA02	1993-05-29
7	SAL1007	Sam	32000	Salesman	SA03	1989-06-12
8	SAL1008	Rohan	28000	Salesman	SA04	1989-07-06
9	ACC1009	Priya	35000	Accountant	AC03	1999-02-21
10	EXE1010	Kabir	26000	Executive	EX03	1993-09-27

4. Modify the datatype of Department Column to Varchar(80).

Program:-

```
ALTER TABLE Employee ALTER COLUMN Department varchar(80);
```

Output:-

Messages

```
Commands completed successfully.

Completion time: 2022-02-09T17:24:59.9880121+05:30
```

5. Add a column name Age and calculate the age of all the employees from DOB column

Program:-

```
ALTER TABLE Employee ADD Age int;

UPDATE Employee SET Age = DATEDIFF(YEAR, DOB , GETDATE()) WHERE DOB IN (SELECT DOB FROM Employee);

SELECT * FROM Employee;
```

Output:-

Results | Messages

	Employee_ID	Name	Salary	Department	job_Code	DOB	Age
1	EXE1001	Adiya	30000	Executive	EX01	1997-02-03	25
2	ACC1002	Aditya	31000	Accountant	AC01	1994-08-01	28
3	SAL1003	Priyanka	32000	Salesman	SA01	1992-11-17	30
4	EXE1004	Anmol	31000	Executive	EX02	1987-08-14	35
5	ACC1005	Rahul	29000	Accountant	AC02	1991-01-31	31
6	SAL1006	Shubh...	27000	Salesman	SA02	1993-05-29	29
7	SAL1007	Sam	32000	Salesman	SA03	1989-06-12	33
8	SAL1008	Rohan	28000	Salesman	SA04	1989-07-06	33
9	ACC1009	Priya	35000	Accountant	AC03	1999-02-21	23
10	EXE1010	Kabir	26000	Executive	EX03	1993-09-27	29

6. Rename the column Salary to Net_Salary and update the data of salary column to net salary.

Program:-

```
EXEC sp_rename 'Employee.Salary', 'Net_Salary', 'Column';

SELECT * FROM Employee;
```

Results | Messages

	Employee_ID	Name	Net_Salary	Department	job_Code	DOB	Age
1	EXE1001	Adiya	30000	Executive	EX01	1997-02-03	25
2	ACC1002	Aditya	31000	Accountant	AC01	1994-08-01	28
3	SAL1003	Priyanka	32000	Salesman	SA01	1992-11-17	30
4	EXE1004	Anmol	31000	Executive	EX02	1987-08-14	35
5	ACC1005	Rahul	29000	Accountant	AC02	1991-01-31	31
6	SAL1006	Shubham	27000	Salesman	SA02	1993-05-29	29
7	SAL1007	Sam	32000	Salesman	SA03	1989-06-12	33
8	SAL1008	Rohan	28000	Salesman	SA04	1989-07-06	33
9	ACC1009	Priya	35000	Accountant	AC03	1999-02-21	23

7. Delete the Record of Employee having Employee_ID EXE1010.

Program:-

```
DELETE FROM Employee WHERE Employee_ID = 'EXE1010';

SELECT * FROM Employee;
```

Results Messages

	Employee_ID	Name	Net_Salary	Department	job_Code	DOB	Age
1	EXE1001	Adiya	30000	Executive	EX01	1997-02-03	25
2	ACC1002	Aditya	31000	Accountant	AC01	1994-08-01	28
3	SAL1003	Priyanka	32000	Salesman	SA01	1992-11-17	30
4	EXE1004	Anmol	31000	Executive	EX02	1987-08-14	35
5	ACC1005	Rahul	29000	Accountant	AC02	1991-01-31	31
6	SAL1006	Shubham	27000	Salesman	SA02	1993-05-29	29
7	SAL1007	Sam	32000	Salesman	SA03	1989-06-12	33
8	SAL1008	Rohan	28000	Salesman	SA04	1989-07-06	33
9	ACC1009	Priya	35000	Accountant	AC03	1999-02-21	23

8. Rename Table name from Employee to Employee_Details.

Program:-

```
EXEC sp_rename 'Employee', 'Employee_Details';

SELECT * FROM Employee_Details;
```

Output:-

Results Messages

	Employee_ID	Name	Net_Salary	Department	job_Code	DOB	Age
1	EXE1001	Adiya	30000	Executive	EX01	1997-02-03	25
2	ACC1002	Aditya	31000	Accountant	AC01	1994-08-01	28
3	SAL1003	Priyanka	32000	Salesman	SA01	1992-11-17	30
4	EXE1004	Anmol	31000	Executive	EX02	1987-08-14	35
5	ACC1005	Rahul	29000	Accountant	AC02	1991-01-31	31
6	SAL1006	Shubham	27000	Salesman	SA02	1993-05-29	29
7	SAL1007	Sam	32000	Salesman	SA03	1989-06-12	33
8	SAL1008	Rohan	28000	Salesman	SA04	1989-07-06	33
9	ACC1009	Priya	35000	Accountant	AC03	1999-02-21	23

9. Delete all records of table using truncate command.

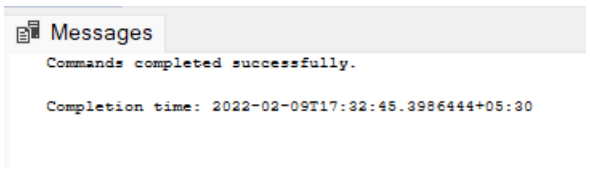
Program:-

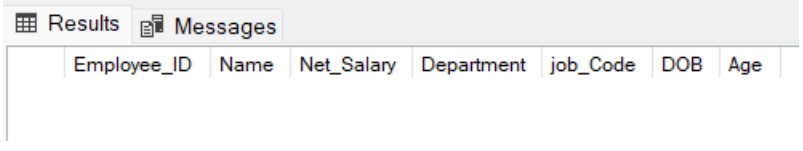
```
TRUNCATE TABLE Employee_Details;

SELECT * FROM Employee_Details;
```

Output : –

Results Messages

	Employee_ID	Name	Net_Salary	Department	job_Code	DOB	Age
1	EXE1001	Adiya	30000	Executive	EX01	1997-02-03	25
2	ACC1002	Aditya	31000	Accountant	AC01	1994-08-01	28
3	SAL1003	Priyanka	32000	Salesman	SA01	1992-11-17	30
4	EXE1004	Anmol	31000	Executive	EX02	1987-08-14	35
5	ACC1005	Rahul	29000	Accountant	AC02	1991-01-31	31
6	SAL1006	Shubham	27000	Salesman	SA02	1993-05-29	29
7	SAL1007	Sam	32000	Salesman	SA03	1989-06-12	33
8	SAL1008	Rohan	28000	Salesman	SA04	1989-07-06	33
9	ACC1009	Priya	35000	Accountant	AC03	1999-02-21	23

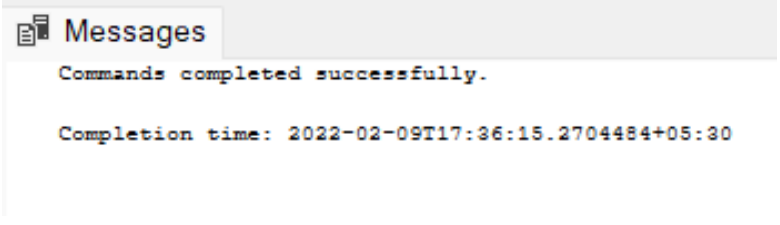




10. Write the query for grant permission to new_user on select and for revoke permission for new_user on select.

Program:-

```
CREATE LOGIN NewLogin WITH PASSWORD = '1234';

USE  ASSGN1;

CREATE USER new_user FOR LOGIN NewLogin;

GRANT SELECT ON Employee_Details TO new_user;

REVOKE SELECT ON Employee_Details FROM

new_user;
```



ALL QUERIES

```
CREATE DATABASE ASSGN1

USE ASSGN1

CREATE TABLE Employee
(
Employee_ID VARCHAR(50),
Name VARCHAR(50),
Age INT,
Salary INT,
Department VARCHAR(50)
);

INSERT INTO Employee VALUES('EXE1001','Adiya',25,30000,'Executive');
INSERT INTO Employee VALUES('ACC1002','Aditya',28,31000,'Accountant');
INSERT INTO Employee VALUES('SAL1003','Priyanka',30,32000,'Salesman');
INSERT INTO Employee VALUES('EXE1004','Anmol',35,31000,'Executive');
INSERT INTO Employee VALUES('ACC1005','Rahul',31,29000,'Accountant');
INSERT INTO Employee VALUES('SAL1006','Shubham',29,27000,'Salesman');
INSERT INTO Employee VALUES('SAL1007','Sam',33,32000,'Salesman');
INSERT INTO Employee VALUES('SAL1008','Rohan',33,28000,'Salesman');
INSERT INTO Employee VALUES('ACC1009','Priya',23,35000,'Accountant');
INSERT INTO Employee VALUES('EXE1010','Kabir',29,26000,'Executive');

ALTER TABLE Employee ADD job_Code varchar(10);

SELECT * FROM Employee;

UPDATE Employee SET job_Code = 'EX01' WHERE Employee_ID = 'EXE1001';
UPDATE Employee SET job_Code = 'AC01' WHERE Employee_ID = 'ACC1002';
UPDATE Employee SET job_Code = 'SA01' WHERE Employee_ID = 'SAL1003';
UPDATE Employee SET job_Code = 'EX02' WHERE Employee_ID = 'EXE1004';
UPDATE Employee SET job_Code = 'AC02' WHERE Employee_ID = 'ACC1005';
UPDATE Employee SET job_Code = 'SA02' WHERE Employee_ID = 'SAL1006';
UPDATE Employee SET job_Code = 'SA03' WHERE Employee_ID = 'SAL1007';
UPDATE Employee SET job_Code = 'SA04' WHERE Employee_ID = 'SAL1008';
UPDATE Employee SET job_Code = 'AC03' WHERE Employee_ID = 'ACC1009';
UPDATE Employee SET job_Code = 'EX03' WHERE Employee_ID = 'EXE1010';

SELECT * FROM Employee;

ALTER TABLE Employee DROP COLUMN Age;

ALTER TABLE Employee ADD DOB DATE;

UPDATE Employee SET DOB = '1997-02-03' WHERE job_Code = 'EX01';
UPDATE Employee SET DOB = '1994-08-01' WHERE job_Code = 'AC01';
UPDATE Employee SET DOB = '1992-11-17' WHERE job_Code = 'SA01';
UPDATE Employee SET DOB = '1987-08-14' WHERE job_Code = 'EX02';
UPDATE Employee SET DOB = '1991-01-31' WHERE job_Code = 'AC02';
UPDATE Employee SET DOB = '1993-05-29' WHERE job_Code = 'SA02';
UPDATE Employee SET DOB = '1989-06-12' WHERE job_Code = 'SA03';
UPDATE Employee SET DOB = '1989-07-06' WHERE job_Code = 'SA04';
UPDATE Employee SET DOB = '1999-02-21' WHERE job_Code = 'AC03';
```

```
UPDATE Employee SET DOB = '1993-09-27' WHERE job_Code = 'EX03';

SELECT * FROM Employee;

ALTER TABLE Employee ALTER COLUMN Department varchar(80);

ALTER TABLE Employee ADD Age int;

UPDATE Employee SET Age = DATEDIFF(YEAR, DOB , GETDATE()) WHERE DOB IN (SELECT DOB FROM Employee);

SELECT * FROM Employee;

EXEC sp_rename 'Employee.Salary', 'Net_Salary', 'Column';

SELECT * FROM Employee;

DELETE FROM Employee WHERE Employee_ID = 'EXE1010';

SELECT * FROM Employee;

EXEC sp_rename 'Employee', 'Employee_Details';

SELECT * FROM Employee_Details;

TRUNCATE TABLE Employee_Details;

SELECT * FROM Employee_Details;

CREATE LOGIN NewLogin WITH PASSWORD = '1234';

USE ASSGN1;

CREATE USER new_user FOR LOGIN NewLogin;

GRANT SELECT ON Employee_Details TO new_user;

REVOKE SELECT ON Employee_Details FROM new_user;
```