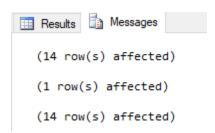
1. Write a script for trigger to audit employee table and merge statement.

```
create table employee
empno int not null primary key,
ename varchar(10),
job varchar(10),
mgr int,
hiredate date,
sal int,
comm int,
deptno int not null
 Messages
   Command(s) completed successfully.
//Table to audit employee table using triggers
create table employee audit
empno int not null primary key,
ename varchar(10),
job varchar(10),
mgr int,
hiredate date,
sal int,
comm int,
deptno int not null,
employee_audit_action varchar(15),
employee audit timestamp datetime
 Messages
   Command(s) completed successfully.
//After Insert Trigger
create trigger trg_afterInsertEmp
on dbo.employee
```

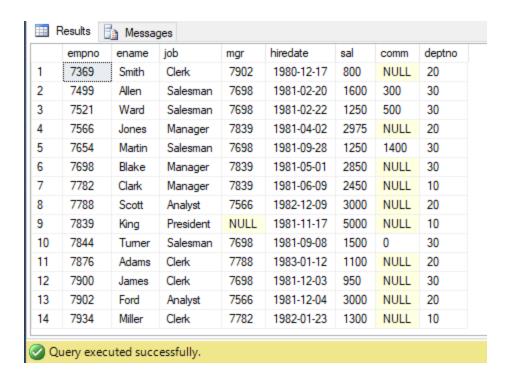
```
after insert as
begin
insert into employee_audit
select *from inserted
select convert(datetime,getdate(),105)
end
go
```

```
Messages
Command(s) completed successfully.
```

insert into employee values
(7369,'Smith','Clerk',7902,'1980-12-17',800,null,20),
(7499,'Allen','Salesman',7698,'1981-2-20',1600,300,30),
(7521,'Ward','Salesman',7698,'1981-2-22',1250,500,30),
(7566,'Jones','Manager',7839,'1981-4-2',2975,null,20),
(7654,'Martin','Salesman',7698,'1981-9-28',1250,1400,30),
(7698,'Blake','Manager',7839,'1981-5-1',2850,null,30),
(7782,'Clark','Manager',7839,'1981-6-9',2450,null,10),
(7788,'Scott','Analyst',7566,'1982-12-9',3000,null,20),
(7839,'King','President',null,'1981-11-17',5000,null,10),
(7844,'Turner','Salesman',7698,'1981-9-8',1500,0,30),
(7876,'Adams','Clerk',7788,'1983-1-12',1100,null,20),
(7900,'James','Clerk',7698,'1981-12-3',950,null,30),
(7902,'Ford','Analyst',7566,'1981-12-4',3000,null,20),
(7934,'Miller','Clerk',7782,'1982-1-23',1300,null,10)



select *from employee select *from employee audit



//After Update Trigger

```
create trigger tgr_afterUpdateEmp
on employee
after update
as
begin
   update employee
   set comm = 0
   from employee
   where exists (select 1 from inserted i where i.empno = employee.empno);
end
```



select *from employee where empno=7369

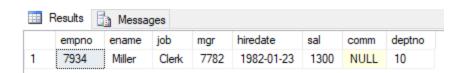


```
//After Delete Trigger
create table employee_history
empno int not null primary key,
ename varchar(10),
job varchar(10),
mgr int,
hiredate date,
sal int,
comm int,
deptno int not null,
 Messages
   Command(s) completed successfully.
create trigger tgr_afterDeleteEmp
on employee
after delete as
begin
       insert into employee_history
       select *from deleted
end
go
 Messages
   Command(s) completed successfully.
```

delete from employee where empno=7934



select *from employee_history



//Merge Statement Script

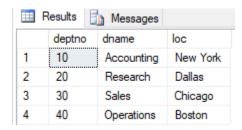
```
create table department
(
deptno int not null primary key,
dname varchar(10),
loc varchar(10)
)
```

```
Messages
Command(s) completed successfully.
```

insert into department values (10,'Accounting','New York'), (20,'Research','Dallas'), (30,'Sales','Chicago'), (40,'Operations','Boston')



select *from department



//Merge with delete

merge employee e
using department d
on e.deptno=d.deptno
when matched and
e.deptno=10 then
delete;



select *from employee

	empno	ename	job	mgr	hiredate	sal	comm	deptno
1	7369	Smith	Clerk	7902	1980-12-17	800	0	20
2	7499	Allen	Salesman	7698	1981-02-20	1600	300	30
3	7521	Ward	Salesman	7698	1981-02-22	1250	500	30
4	7566	Jones	Manager	7839	1981-04-02	2975	NULL	20
5	7654	Martin	Salesman	7698	1981-09-28	1250	1400	30
6	7698	Blake	Manager	7839	1981-05-01	2850	NULL	30
7	7788	Scott	Analyst	7566	1982-12-09	3000	NULL	20
8	7844	Tumer	Salesman	7698	1981-09-08	1500	0	30
9	7876	Adams	Clerk	7788	1983-01-12	1100	NULL	20
10	7900	James	Clerk	7698	1981-12-03	950	NULL	30
11	7902	Ford	Analyst	7566	1981-12-04	3000	NULL	20

//Merge with update

merge employee e
using department d
on e.deptno=d.deptno
when matched and
e.deptno=20 then
update
set e.sal=e.sal*2;



select *from employee

<u> </u>	Results	Messa	ges					
	empno	ename	job	mgr	hiredate	sal	comm	deptno
1	7369	Smith	Clerk	7902	1980-12-17	1600	0	20
2	7499	Allen	Salesman	7698	1981-02-20	1600	300	30
3	7521	Ward	Salesman	7698	1981-02-22	1250	500	30
4	7566	Jones	Manager	7839	1981-04-02	5950	0	20
5	7654	Martin	Salesman	7698	1981-09-28	1250	1400	30
6	7698	Blake	Manager	7839	1981-05-01	2850	NULL	30
7	7788	Scott	Analyst	7566	1982-12-09	6000	0	20
8	7844	Tumer	Salesman	7698	1981-09-08	1500	0	30
9	7876	Adams	Clerk	7788	1983-01-12	2200	0	20
10	7900	James	Clerk	7698	1981-12-03	950	NULL	30
11	7902	Ford	Analyst	7566	1981-12-04	6000	0	20

//Merge with insert

merge employee e
using department d
on e.deptno=d.deptno
when not matched by target and
d.deptno=40 then
insert (empno,ename,job,mgr,hiredate,sal,comm,deptno)
values (8000,'Scofield','Manager',8900,'2018-01-20',9000,2000,40);

```
Results Messages

(1 row(s) affected)

(1 row(s) affected)

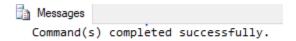
(1 row(s) affected)

select *from employee
```

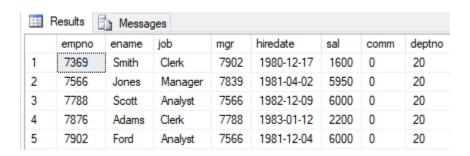
	Results	Messag	es					
	empno	ename	job	mgr	hiredate	sal	comm	deptno
1	7369	Smith	Clerk	7902	1980-12-17	1600	0	20
2	7499	Allen	Salesman	7698	1981-02-20	1600	300	30
3	7521	Ward	Salesman	7698	1981-02-22	1250	500	30
4	7566	Jones	Manager	7839	1981-04-02	5950	0	20
5	7654	Martin	Salesman	7698	1981-09-28	1250	1400	30
6	7698	Blake	Manager	7839	1981-05-01	2850	NULL	30
7	7788	Scott	Analyst	7566	1982-12-09	6000	0	20
8	7844	Tumer	Salesman	7698	1981-09-08	1500	0	30
9	7876	Adams	Clerk	7788	1983-01-12	2200	0	20
10	7900	James	Clerk	7698	1981-12-03	950	NULL	30
11	7902	Ford	Analyst	7566	1981-12-04	6000	0	20
12	8000	Scofield	Manager	8900	2018-01-20	9000	2000	40

2. Write a sample stored procedure by using employee and department tables.

create procedure uspGetdetails @deptno int as select *from employee where deptno=@deptno go



exec uspGetdetails @deptno=20



3. Write a sample procedure by using dynamic sql concepts.

//Creating user defined type student

create type student as table

```
(
       id int not null primary key,
       name varchar(10),
       age int,
       address varchar(10)
)
go
 Messages
   Command(s) completed successfully.
create procedure usp_StudentDetails @myparam student readonly, @studentid int
as
       select *from @myparam where id=@studentid
 Messages
   Command(s) completed successfully.
//Passing table as a parameter
declare @student_details student
insert into @student_details (id,name,age,address)
values
(1,'Aman',22,'Chennai'),
(2,'Upendra',23,'Delhi'),
(3,'Deepak',24,'Kolkata'),
(4,'Vishal',23,'Mumbai'),
(5,'Pradeep',24,'Bangalore')
select *from @student details
```

exec usp StudentDetails @student details, @studentid=1

go

	id	name	age	address
1	1	Aman	22	Chennai
2	2	Upendra	23	Delhi
3	3	Deepak	24	Kolkata
4	4	Vishal	23	Mumbai
5	5	Pradeep	24	Bangalore
	id	name a	age a	ddress