

## • Preparation

## **Create Employee Table**

```
Project Tools Window Help
 ■ 🔐 🎒 New Query 🔑 🔊 😭 🛣 🛣 🛣 🖒 占 白 🤊 🗸 🤍 🔻 🔀 Convert(datetime,%')
                                                                                             - | 👼 🔑 🖮 🖂 - "
      ▼ | ▶ Execute ■ ✔ 당 🗊 🗟 당 망 📦 🗐 📾 🗈 | ७ 월 🖅 🚈 🛂 | 🍲 😜
                 create table employee (
Server 15.0.209
                  FIRSTNAME varchar(12),
                  MIDINIT char(1),
                  LASTNAME varchar(15),
WORKDEPT char(3),
                  PHONENO char(4),
HIREDATE date,
                  JOB char(8),
EDLEVEL smallint,
                  SEX char(1),
BIRTHDATE date,
                  SALARY decimal(9,2),
                  BONUS decimal(9.2).
                  COMM decimal(9,2)
            110 % -
                Commands completed successfully.
```

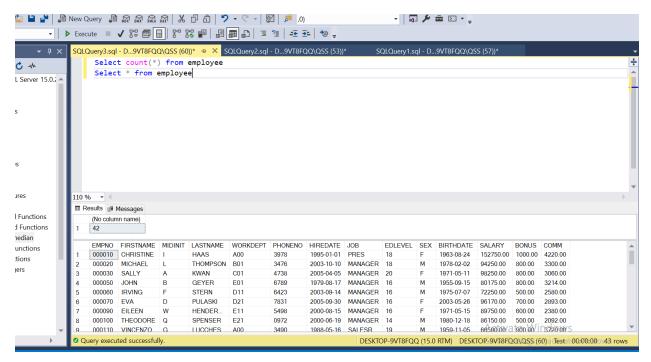
### Insert data into Employee table

```
≌ 🛂 🚇 New Query 🚇 🔊 유 요요 요 요 🛪 🗗 🗂 🤊 - 🤻 - 🔯 💆 💌
                                                                                                                            · | 57 / 10 - -
        - | ▶ Execute = ✓ 80 🗇 🔡 80 80 🛍 🕮 🕮 🗗 🥫 🥶 🕹
                SQLQuery3.sql - D...9V18FQQ\QSS (60))*

SQLQuery2.sql - D...9V18FQQ\QSS (57))*

SQLQuery2.sql - D...9V18FQQ\QSS (57))*

SQLQuery3.sql - D...9V18FQQ\QSS (57))*
                        VALUES('200120','GREG','','ORLANDO','A00','2167',CONVERT(datetime, convert(char(8),20020505)),'CLERK ',14,'M',CON
INSERT INTO [dbo].[employee]([EMPNO],[FIRSTNAME],[MIDINIT],[LASTNAME],[WORKDEPT],[PHONENO],[HIREDATE],[JOB],[EDLEVEL],[S
 rver 15.0.2 =
                                                                                                    CONVERT(datetime.
                                                                                                                                   vert(char(8),20061215)), 'ANALYS
                        INSERT INTO [dbo].[employee]([EMPNO],[FIRSTNAME],[MIDINIT],[LASTNAME],[WORKDEPT],[PHONENO],[HIREDATE],[DB],[EDLEVEL],[S
                       VALUES('200170','KIYOSHI','','YAMAMOTO','D11','2890',CONVERT(datetime, convert(char(8),20050915)),'DESIGNER',16,'M'
INSERT INTO [dbo].[employee]([EMPNO],[FIRSTNAME],[MIDINIT],[LASTNAME],[WORKDEPT],[PHONENO],[HIREDATE],[JOB],[EDLEVEL],[S
                       VALUES('200220','REBA','K','JOHN','D11','0672',CONVERT(datetime, convert(char(8),20050829)),'DESIGNER',18,'F',CONVERT(INTO [dbo],[employee]([EMPNO],[FIRSTNAME],[MIDINIT],[LASTNAME],[WORKDEPT],[PHONENO],[HIREDATE],[JOB],[EDLEVEL],[S
                       VALUES('200240','ROBERT','M','MONTEVERDE','021','3780',CONVERT(datetime, convert(char(8),20041205)),'CLERK ',17,'N
INSERT INTO [dbo].[employee]([EMPNO],[FIRSTNAME],[MIDINIT],[LASTNAME],[WORKDEPT],[PHONENO],[HIREDATE],[JOB],[EDLEVEL],[STVALUES('200280','EILEEN','R','SCHWARTZ','E11','8997',CONVERT(datetime, convert(char(8),19970324)),'OPERATOR',17,'F',
                      INSERT INTO [dbo].[employee]([EMPNO],[FIRSTNAME],[MIDINIT],[LASTNAME],[WORKDEPT],[PHONENO],[HIREDATE],[JOB],[EDLEVEL],[S
                    (1 row affected)
nctions
                    (1 row affected)
tions
                    (1 row affected)
                    (1 row affected)
                    (1 row affected)
                    (1 row affected)
                                                                                                                                                           Activate Window
```



Overview of the employee table

#### **Create Staff Table**

```
□ - 🕍 🔐 🔑 👂 New Query 👂 🔊 😭 🛣 🛣 🛣 🛣 🗂 台 💙 - 🤍 - 🔯 🏓 Convert(datetime,%)
                                                                                            · 5 5 = 5 - -
             - | ▶ Execute | ■ ✔ 80 🗐 🗐 80 80 🗊 | ♬ 📠 🗗 | 🧵 🚈 🚈 🐿 🛫
                   SQLQuery1.sql - D...9VT8FQQ\QSS (66))*
                       -- Create the STAFF table
   T C +
FQQ (SQL Server 15.0.209
                       create table staff (
                       ID smallint,
                       NAME varchar(9),
DEPT smallint,
inapshots
                        JOB char(5),
                        YEARS smallint.
                        SALARY decimal(7,2),
                        COMM decimal(7,2)
                   110 % -
                      Commands completed successfully.
                                                                                                                  Activate Windows
```

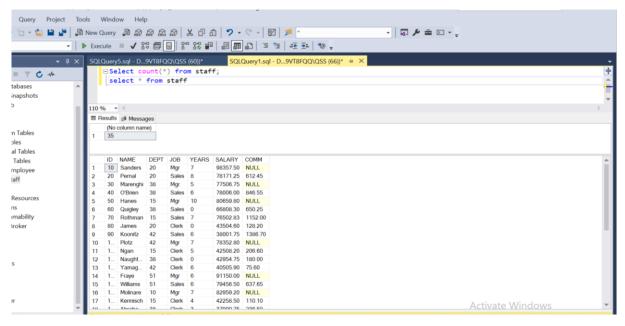
#### Insert data into Staff table

```
ery Project Tools Window Help
- 😩 💾 🧬 | 🗿 New Query 👂 🔊 🔊 🛣 🔝 🏔 🛣 🏃 🗗 🗂 🦊 🎔 - 🤻 - 🏻 💆 🍺 🕙
                                                                                                     - 🗔 🔑 🚊 🖂 - "
           - | ▶ Execute ■ ✔ $8 @ @ B $8 @ @ @ @ @ @ @ @ @ $4 = ₹ ₹ \ ** $ = \ ** $
       ▼ ‡ X | SQLQuery5.sql - D...9VT8FQQ\QSS (60))* | SQLQuery1.sql - D...9VT8FQQ\QSS (66))* + X
                                    (180, 'Abrahams', 38, 'Clerk', 3, +37009.75, +00236.50);
C -4
                      INSERT INTO [dbo].[staff]([ID],[NAME],[DEPT],[JOB],[YEARS],[SALARY],[COMM]) VALUES
                                   (190, 'Sneider', 20, 'Clerk', 8, +34252.75, +00126.50)
ots
                     INSERT INTO [dbo].[staff]([ID],[NAME],[DEPT],[JOB],[YEARS],[SALARY],[COMM]) VALUES
                     (200, 'Scoutten', 42, 'Clerk', 0, +41508.60, +00084.20);
⊟INSERT INTO [dbo].[staff]([ID], [NAME], [DEPT], [JOB], [YEARS], [SALARY]) VALUES

(210, 'Lu', 10, 'Mgr ', 10, +90010.00);
                     (210, 'tu',10, 'Mgr',10, +90010.00);
INSERT INTO [dbo].[staff]([ID],[NAME],[DEPT],[JOB],[YEARS],[SALARY],[COMM]) VALUES
les
                                   (220, 'Smith', 51, 'Sales', 7, +87654.50, +00992.80)
                     INSERT INTO [dbo].[staff]([ID],[NAME],[DEPT],[JOB],[YEARS],[SALARY],[COMM]) VALUES
                                   (230, 'Lundquist',51, 'Clerk',3,+83369.80,+00189.65);
                 110 % -

    Messages

                     (1 row affected)
irces
                     (1 row affected)
ity
                     (1 row affected)
                     (1 row affected)
                     (1 row affected)
                     (1 row affected)
                                                                                                              Activate Windows
                  110 % -
```



Overview of the staff table

# 2. trigger – varpaychk

# 3. trigger – nomgr

```
SQLQuery7.sql - lo...EU3H3Q\aashi (60))* → × SQLQuery6.sql - not connected* SQLQuery5.sql - not connected*
    ∃Create TRIGGER nomgr
    ON Employee
    AFTER INSERT
   BEGIN
        Declare @EMPID as Int;
        Declare @ERRORCODE as varchar(10);
       Declare @OPERATION as varchar(10);
       Declare @WORKDEPT as varchar(10);
       Declare @SALARY as decimal(18,2);
        declare @COMM as decimal(18,2);
       Declare @BONUS as decimal(18,2);
       DECLARE @counter INT
        SET @counter = 1;
         DECLARE yucky_Cursor CURSOR FOR
            SELECT EMPNO, WORKDEPT FROM Inserted;
         OPEN yucky_Cursor; /*Open cursor for reading*/
100 % -

    Messages

  Commands completed successfully.
  Completion time: 2022-11-19T14:17:40.3193930+05:30
```

# 4. trigger – empvac

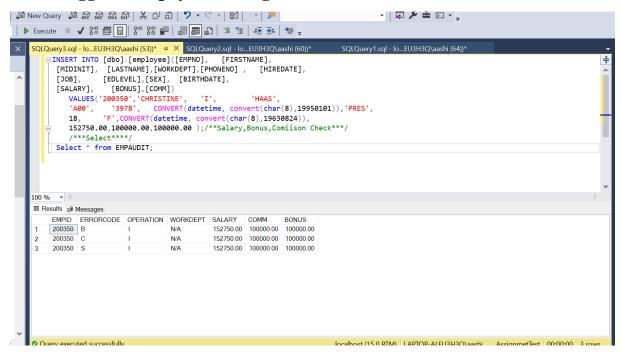
```
Î New Query 👂 🔊 😭 🔊 🛣 🖟 사 다 수 🍐 🤊 - 🤍 - 🎆 📗 - 🎏
                                                                       - | 🗊 🔑 🚊 D - _
SQLQuery7.sql - lo...EU3H3Q\aashi (56))* 😕 🗴 SQLQuery6.sql - lo...EU3H3Q\aashi (62))* SQLQuery5.sql - lo...EU3H3Q\aashi (53))*
     □CREATE TRIGGER empvac ON Employee
      AFTER INSERT, UPDAT
     FIF (ROWCOUNT_BIG() = 0)
      RETURN;
      BEGIN
      insert into dbo.Vacation(EMPID,VACATIONDAYS,HIREDATE)
      SELECT i.EMPNO,15,i.HIREDATE FROM inserted AS i where DATEDIFF(YEAR,i.HIREDATE,GETDATE())<10;
      /********EMP HIRED BEFORE 10-19 YRS *******/
      insert into dbo.Vacation(EMPID,VACATIONDAYS,HIREDATE)
      SELECT i.EMPNO,20,i.HIREDATE FROM inserted AS i where DATEDIFF(YEAR,i.HIREDATE,GETDATE())>=10 and DATEDIFF(YEAR,i.HIREDATE,GETDATE
      insert into dbo.Vacation(EMPID,VACATIONDAYS,HIREDATE)
  100 % - 4

    Messages

    Commands completed successfully.
    Completion time: 2022-11-19T13:29:08.0344407+05:30
```

## **Testing**

• trigger – varpaychk – Single Insert

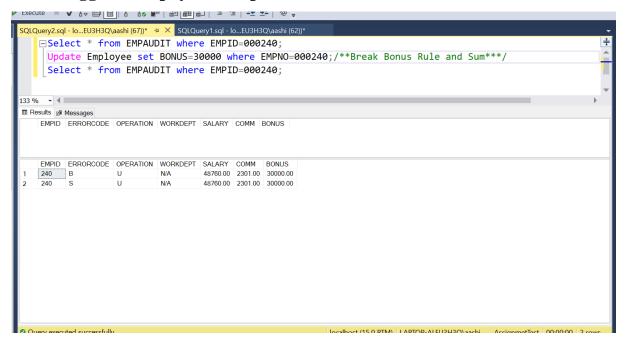


• trigger – varpaychk – Multiple Insert

```
』 New Query 』 級 級 級 級 数 日 台 フ・▽・ 図 | - | 5 |
                                                                                                                                                                                                                                                                                                                        - | 🗊 🔑 🚊 🖂 - _
| ▶ Execute | ▼ 망 🗐 🗐 망 망 🛍 🗐 📰 🗊 🧵 🤨 포 ಶ 😜
                SQLQuery3.sql - Io...EU3H3Q\aashi (53))* → X SQLQuery2.sql - Io...EU3H3Q\aashi (60))*
                                                                                                                                                                                                                                                                                      SQLQuery1.sql - lo...EU3H3Q\aashi (64))*
                           □INSERT INTO [dbo].[employee]([EMPNO], [FIRSTNAME],
                                  [MIDINIT], [LASTNAME], [MORKDEPT], [PHONENO], [HIREDATE],
[JOB], [EDLEVEL], [SEX], [BIRTHDATE],
[SALARY], [BONUS], [COMM])
                                            ALARY], [BONUS],[COMM])

VALUES('200360', 'CHRISTINE2', 'I', 'HAAS', '400', '3978', CONVERT(datetime, convert(char(8),1950101)), 'PRES', 18, 'F', CONVERT(datetime, convert(char(8),19630824)), 152750.00,108000.00,01000.00) /**Salary,Bonus,Comiison Check***/
                                           (13275.00,70.0000.00,70.000.00); "Saraiy,onios; coincis; 
                                              /***Select****
                                   Select * from EMPAUDIT;
              100 % - 4
               EMPID ERRORCODE OPERATION WORKDEPT SALARY
                                                                                                                                                                                                       COMM
                                                                                                                                                                         152750.00 100000.00 100000.00
                               200350 B
                                                                                                                                    N/A
                               200350 C
                                                                                                                                    N/A
                                                                                                                                                                         152750.00 100000.00 100000.00
                                                                                                                                                                         152750.00 100000.00 100000.00
                             200370 B
                                                                                                                                   N/A
                                                                                                                                                                        152750.00 10.00
                                                                                                                                                                                                                                     59000.00
                               200360 B
                                                                                                                                    N/A
                                                                                                                                                                         152750.00 1000.00
                                                                                                                                                                                                                                        108000.00
                               200360 S
                                                                                                                                                                        152750.00 1000.00
```

• trigger - varpaychk - Update Data



• trigger - empvac - Single Insert

```
▶ Execute ■ ✔ $♥ 🗗 🔒 $₽ $₽ 🕮 🕮 🖺 🗏 🤏 🛬 🙋 🛫
 SQLQuery3.sql - lo...EU3H3Q\aashi (53))*     

SQLQuery2.sql - lo...EU3H3Q\aashi (60))*
                                                                   SQLQuery1.sql - lo...EU3H3Q\aashi (64))*
    □INSERT INTO [dbo].[employee]([EMPNO], [FIRSTNAME],
      152750.00,108000.00,01000.00)
         /***Select****/
      Select * from VACATION;
 EMPID VACATIONDAYS HIREDATE
     200350 25
                       1995-01-01 00:00:00.000
     200350 25
                       1995-01-01 00:00:00.000
     200370 25
                       1995-01-01 00:00:00.000
     200360 25
                       1995-01-01 00:00:00 000
                    2015-01-21 00:00:00.000
     200380 15
                                                                  localhost (15.0 RTM) | LAPTOP-ALFLISH3O\aashi | AssignmetTest | 00:00:00 | 5 ro
 Q Quent executed successfully
```

• trigger – empvac – Multiple Insert

```
▼ | P Execute ■ ✔ 話 □ 🔳 話 話 🖦 | 歯 | 歯 | 歯 | 山 | = /雪 | 土 土 | 70 🛫
         SQLQuery3.sql - lo...EU3H3Q\aashi (53))* 

⇒ × SQLQuery2.sql - lo...EU3H3Q\aashi (60))*
                                                                                                               SQLQuery1.sql - lo...EU3H3Q\aashi (64))
              INSERT INTO [dbo].[employee]([EMPNO], [FIRSTNAME],
                 [MIDINIT], [LASTNAME], [WORKDEPT], [PHONENO], [HIREDATE],
                 [JOB], [EDLEVEL],[SEX], [BIRTHDATE], [SALARY], [BONUS],[COMM])
                     VALUES('200390','VIVEK', 'I', 'HAAS',
'A00', '3978', CONVERT(datetime, convert(char(8),20110126)),'PRES',/**Vacation 20***/
18, 'F',CONVERT(datetime, convert(char(8),19630824)),
                    18, F, CONVERT(datetime, convert(char(8),1959624)),

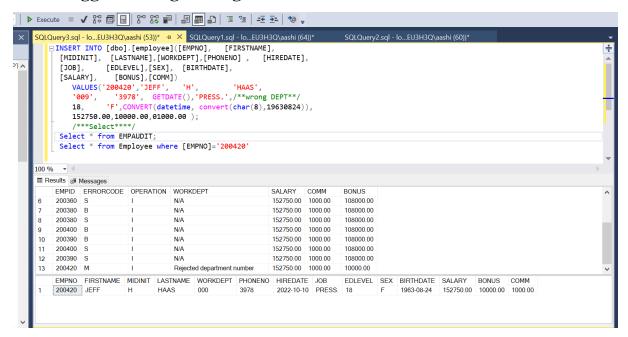
152750.09,108000.00,01000.00 ),

('200400', 'KASN1', 'I', 'HAAS1',

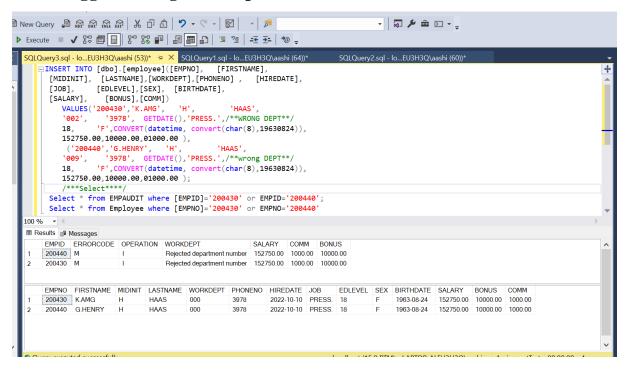
'A00', '3978', CONVERT(datetime, convert(char(8),19150128)), 'PRES',/**Vacation 30***/

18, 'F', CONVERT(datetime, convert(char(8),19630824)),
rМа
                     152750.00,108000.00,01000.00 )
                     /***Select****/
                 Select * from VACATION;
         100 % - 4
sun
         od
               EMPID VACATIONDAYS HIREDATE
               200350 25
                                           1995-01-01 00:00:00.000
                                            1995-01-01 00:00:00.000
                200350 25
                200370 25
                200360 25
                                            1995-01-01 00:00:00.000
                200380 15
                                           2015-01-21 00:00:00.000
               200390 20
                                           2011-01-26 00:00:00.000
iils
                200400 30
                                           1915-01-28 00:00:00.000
De
olie
olie
iaa
               iani avacutad successfulli
                                                                                                              localbost (15.0 RTM) | LADTOD-ALELISHRO) aachi | AccignmentTest | 00:00:00
```

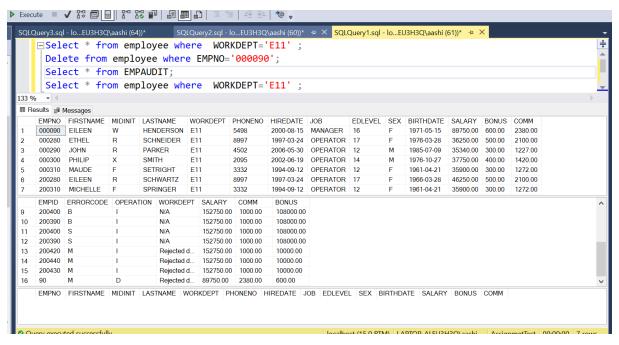
• trigger – nomgr – Single Insert



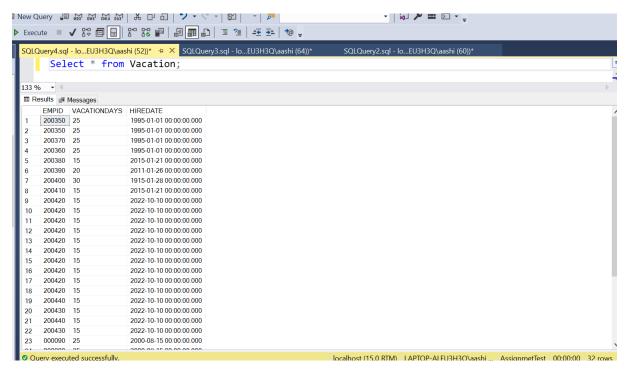
• trigger – nomgr– Mulitple Insert



• trigger – nomgr– Delete Manager



## Data in table-VACATION



### Data in table-EMPUDIT

