

CIS430 ESHA ATTIQ

2774494

Object: Creating a Relational Database Schema Using SQL and SQL Server

PART 1: all tests done

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EshaAttig_Lab1_Cre...H4-MSI\attiq (63)  ESH4-MSI.COMPANY...hAtt - Diagram_1*  ESH4-MSI.COMPANY...hAtt - Diagram_0*  EshaAttig_Lab2_Cre...

SALARY DECIMAL(10,2),
SUPERSSN CHAR(9),
DNO INT,
);
GO

-- Insert a duplicate tuple into EMPLOYEE table
INSERT INTO EMPLOYEE_TEST (FNAME, MINIT, LNAME, SSN, BDATE, [ADDRESS], SEX, SALARY, SUPERSSN, DNO)
VALUES('John', 'B', 'Smith', '123456789', '9-Jan-1955', '731 Fondren, Houston, TX', 'M', 30000, '987654321', 5);
-- Insert a duplicate SSN value
INSERT INTO EMPLOYEE_TEST (FNAME, MINIT, LNAME, SSN, BDATE, [ADDRESS], SEX, SALARY, SUPERSSN, DNO)
VALUES('Alice', 'M', 'Johnson', '123456789', '15-Feb-1990', '123 Elm St, Anytown, USA', 'F', 45000, '123456789', 2);
-- Insert a NULL value into SSN column
INSERT INTO EMPLOYEE_TEST (FNAME, MINIT, LNAME, SSN, BDATE, [ADDRESS], SEX, SALARY, SUPERSSN, DNO)
VALUES('Bob', 'A', 'Smith', NULL, '30-Mar-1985', '456 Oak St, Othertown, USA', 'M', 35000, '987654321', 3);
-- Insert a NULL value into LName
INSERT INTO EMPLOYEE_TEST (FNAME, MINIT, LNAME, SSN, BDATE, [ADDRESS], SEX, SALARY, SUPERSSN, DNO)
VALUES('Jill', 'R', NULL, '777999888', '5-Jun-1980', '789 Pine St, Another town, USA', 'F', 40000, '987654321', 3);
-- Insert a space ' ' into the FK Dno column
INSERT INTO EMPLOYEE_TEST (FNAME, MINIT, LNAME, SSN, BDATE, [ADDRESS], SEX, SALARY, SUPERSSN, DNO)
VALUES('Sam', 'T', 'Wilson', '777999888', '12-Nov-1987', '567 Birch St, Yetanother town, USA', 'M', 42000, '987654321', ' ');
-- Insert all NULL values for a tuple
INSERT INTO EMPLOYEE_TEST VALUES(NULL, NULL, NULL, NULL, NULL, NULL, NULL, NULL, NULL, NULL);

USE COMPANY_EshAtt;
GO

-- drop table, removes DEPARTMENT table & data
IF OBJECT_ID('dbo.DEPARTMENT') IS NOT NULL
DROP TABLE dbo.DEPARTMENT
```

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Messages

Msg 2627, Level 14, State 1, Line 29
Violation of PRIMARY KEY constraint 'PK_EMPLOYEE_CA1E8E3DD00B124C'. Cannot insert duplicate key in object 'dbo.EMPLOYEE_TEST'. The duplicate key value is (123456789).
The statement has been terminated.

Msg 2627, Level 14, State 1, Line 32
Violation of PRIMARY KEY constraint 'PK_EMPLOYEE_CA1E8E3DD00B124C'. Cannot insert duplicate key in object 'dbo.EMPLOYEE_TEST'. The duplicate key value is (123456789).
The statement has been terminated.

Msg 815, Level 16, State 2, Line 35
Cannot insert the value NULL into column 'SSN', table 'COMPANY_EshAtt.dbo.EMPLOYEE_TEST'; column does not allow nulls. INSERT fails.
The statement has been terminated.

Msg 2627, Level 14, State 1, Line 38

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PART 2:

DEFINE THE PK FK

```
COMPANY_EshAtt  Execute  E5H4-MSI.COMPANY...hAtt - Diagram_1*

ALTER TABLE EMPLOYEE
ADD PRIMARY KEY (Ssn);
ALTER TABLE DEPARTMENT
ADD PRIMARY KEY (Dnumber);
Alter TABLE DEPT_LOCATIONS
ADD Primary Key (Dnumber,Dlocation);
ALTER TABLE PROJECT
ADD PRIMARY KEY(Pnumber);
ALTER table WORKS_ON
ADD PRIMARY KEY(Essn,Pno);
Alter Table DEPENDENT
ADD PRIMARY KEY(Essn, Dependent_name)

INSERT INTO EMPLOYEE VALUES ('James', 'E', 'Borg', 888665555, '10-Nov-27', '450
Stone, Houston, TX', 'M', 55000, NULL, 1);
insert into DEPARTMENT values ('Headquarters', 1, 888665555, '19-Jun-71');
INSERT INTO DEPENDENT VALUES (123456789, 'Alice', 'F', '31-Dec-78', 'Daughter');
INSERT INTO PROJECT VALUES ('ProductX', 1, 'Bellaire', 5);
INSERT INTO WORKS_ON VALUES (123456789, 1, 32.5);
insert into DEPARTMENT values ('Headquarters', 1, 888665555, '19-Jun-71');
INSERT INTO DEPENDENT VALUES (123456789, 'Alice', 'F', '31-Dec-78', 'Daughter');
INSERT INTO PROJECT VALUES ('ProductX', 1, 'Bellaire', 5);
INSERT INTO WORKS_ON VALUES (123456789, 1, 32.5);
INSERT INTO EMPLOYEE VALUES ('James', 'E', 'Borg', 888665555, '10-Nov-27', '450
Stone, Houston, TX', 'M', 55000, NULL, 1);
INSERT INTO EMPLOYEE VALUES('John','B','Smith',Null,'9-Jan-55','731
Fondren, Houston, TX','M',30000,'987654321',5);
INSERT INTO WORKS_ON VALUES (123456789,'2', '3')

SELECT * FROM EMPLOYEE
SELECT * FROM DEPARTMENT
```

DIAGRAM

DEPENDENT
ESSN
DEPENDENT_NAME
SEX
BDATE
RELATIONSHIP

PROJECT
PNAME
PNUMBER
PLOCATION
DNUM

DEPT_LOCATIONS
DNUMBER
DLOCATION

WORKS_ON
ESSN
PNO
HOURS

EMPLOYEE
FNAME
MINIT
LNAME
SSN
BDATE
ADDRESS
SEX
SALARY
SUPERSSN
DNO

DEPARTMENT
DNAME
DNUMBER
MGRSSN
MGRSTARTDATE

EMPLOYEE_TEST
FNAME
MINIT
LNAME
SSN
BDATE
ADDRESS
SEX
SALARY
SUPERSSN
DNO

