FK-PK CASCADE,NO ACTION

**USF\_ID:U72254994(Venkata Satya Sai Lakshmi Lavanya)**

**Subject\_ID:ISM6218(Advanced Database Management System)**

**Questions**

1. Match the rows of your PK (Primary Key) table with the FK (Foreign Key) table and demonstrate the effect of setting Delete and Update specification associated with the Foreign Key Relationships to Cascade and No Action.

**Primary Key Table Being Used For demonstrating the affect of NO ACTION,CASCADE, SET NULL AND DEFAULT**

1. Patient (Table with my Primary key)

Rows

1.Patient\_No(Primary Key that is used as reference for the Foreign Key in Treatement\_Administration )

2.FirstName

3.LastName

4.Gender

5.DOB

6.Age

7.Street

8.City

9.Zip

10.Bed\_No

11.phone\_no

**Foreign Key Table Being Used For demonstrating the affect of NO ACTION,CASCADE, SET NULL AND DEFAULT**

1. Treatement\_Administration

Rows

1.Patient\_No (Composite Primary key) (FK\_Treatement\_Administration\_Patient= Foreign key that refers to Primary key in Patient table)

2.Doctor\_Id (Composite Primary key) (FK\_Treatement\_Administration\_Physician = Foreign key that refers to Primary key in Physician table)

3.Treatment\_No (Composite Primary key) (FK\_Treatement\_Administration\_Treatment = Foreign key that refers to Primary key in Treatment table)

4.Date (Composite Primary key)

5.Time

6.Results

**Data Collection (Finding out the values of Patient\_No in Patient table that do not exist in Patient\_No column of Treatement\_administration table)**

Query 4: select Patient\_No from Patient except select Patient\_No from Treatement\_Administration;

Output: 51

64

69

70

71

76

94

95

96

97

**NO ACTION CASE**

Graphical user interface, text, application

Description automatically generated Graphical user interface, text, application

Description automatically generated

**CASCADE CASE**

**Graphical user interface, text, application, email

Description automatically generated** Graphical user interface, text, application, email

Description automatically generated

Output Before Executing Delete Statement Output After Executing Delete Statement

Table

Description automatically generated Graphical user interface, application

Description automatically generated



**Conclusion:** From the above-mentioned screenshots we can see that the Patient\_No 8 No more exists in the table

that has a foreign key that refers to the Primary key (Patient\_No) in Patient table

**SET NULL CASE**

Graphical user interface, text, application

Description automatically generatedGraphical user interface, text

Description automatically generated



Output Before Executing Delete Statement Output After Executing Delete Statement

Graphical user interface, application

Description automatically generated Table

Description automatically generated with medium confidence



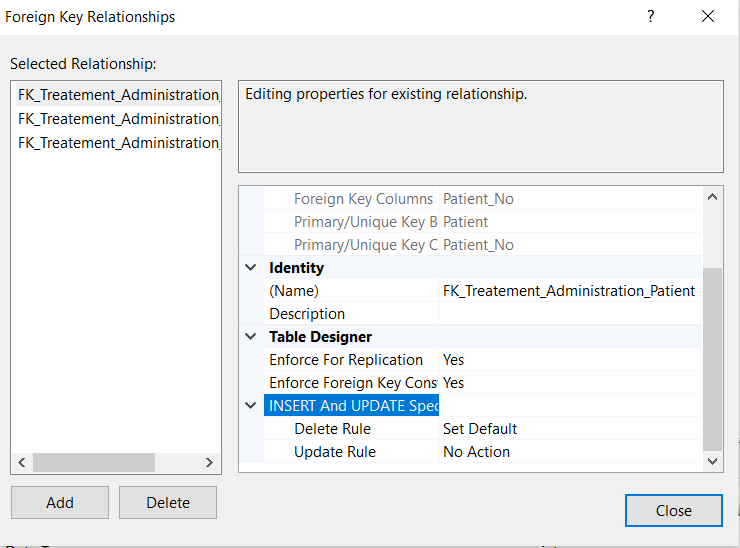
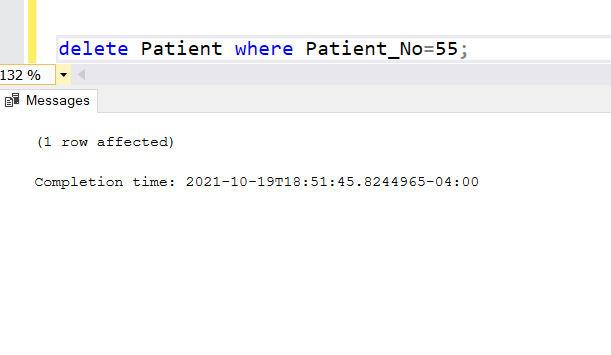
**Conclusion:**  From the above-mentioned screenshots we can see that in case the value in the foreign key column

is 1 then the value in these foreign key columns is set to NULL since the Patient\_No 1 has been deleted from the

table that consists of my primary key.

**DEFAULT CASE (BY SETTING DEFAULT VALUE=90 IN PATIENT\_NO(FK) OF TREATEMENT\_ADMINISTRATION TABLE**

Delete Rule Specification set to Default Output of my Delete Statement

**** 

Output Before Executing Delete Statement Output After Executing Delete Statement

Table

Description automatically generated **Table

Description automatically generated**



**Conclusion:**  From the above-mentioned screenshots we can see that in case the value in the foreign key column

is 55 then the value in these foreign key columns is set to Default value i..e, 90 in the above case

since the Patient\_No 55 has been deleted from the table that consists of my primary key.

**NOTE:** As per functionality, the Delete Rule of the relationship associated with the foreign key column can be set to NULL if

and only if my foreign key column accepts NULL value. Therefore, in this document the Composite Primary key

(Patient\_No,Doctor\_Id,Treatment\_No,Date) has been removed from Treatement\_Administration table in order to

facilitate the demonstration of delete Rule “NULL” i.e., In case my FK Patient\_No in Treatement Administration is part

of Composite Primary Key then it does not allow NULL values hence delete rule cannot be set to NULL here.