

Question: Answer to Question 9: Create a trigger named Tr2 for the upd...

Question 9:
Create a trigger named Tr2 for the update statement on table Departments so that when we update the ManagerID of one or more Departments, the system will display the DepartmentID, DepartmentName, OldManagerID, NewManagerID of the departments that have been updated; where OldManagerID is the ManagerID before updated and NewManagerID is the ManagerID after updated.
for example, when we execute the following statement, the results should be as follows:
update Departments
set ManagerID = 100
where DepartmentID in (110, 80)

	DepartmentID	DepartmentName	OldManagerID	NewManagerID
1	110	Accounting	205	100
2	80	Sales	145	100

Picture 9.1

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Expert Answer

QUESTION-9

First Create Table and Insert Values

```
CREATE TABLE Departments(DepartmentID int,DepartmentName varchar(50),ManagerID int);
INSERT INTO Departments VALUES(110,'Accounting',205);
INSERT INTO Departments VALUES(80,'Sales',145);

CREATE TABLE Departments(DepartmentID int,DepartmentName varchar(50),ManagerID int);
INSERT INTO Departments VALUES(110,'Accounting',205);
INSERT INTO Departments VALUES(80,'Sales',145);
```

Messages

(1 row(s) affected)

(1 row(s) affected)

Query executed successfully.

Now Check Table-

SELECT * FROM Departments;

SELECT * FROM Departments;

Results

Messages

	DepartmentID	DepartmentName	ManagerID
1	110	Accounting	205
2	80	Sales	145

Query executed successfully.

Now Apply Trigger-

```
CREATE TRIGGER Tr2 ON Departments
AFTER UPDATE
AS
BEGIN
SELECT Departments.DepartmentID,Departments.DepartmentName,DELETED.ManagerID AS
OldManagerID,Departments.ManagerID AS NewManagerID FROM Departments
INNER JOIN DELETED ON DELETED.DepartmentID=Departments.DepartmentID
END
```

CREATE TRIGGER Tr2 ON Departments
AFTER UPDATE
AS
BEGIN
SELECT Departments.DepartmentID,Departments.DepartmentName,DELETED.ManagerID AS OldManagerID,Departments.ManagerID AS NewManagerID FROM Departments
INNER JOIN DELETED ON DELETED.DepartmentID=Departments.DepartmentID
END

Messages

Command(s) completed successfully.

Now Check it-

```
UPDATE Departments
SET ManagerID=100
WHERE DepartmentID IN(110,80);
```

```
UPDATE Departments
SET ManagerID=100
WHERE DepartmentID IN (110,80);
```

<				
Results Messages				
	DepartmentID	DepartmentName	OldManagerID	NewManagerID
1	110	Accounting	205	100
2	80	Sales	145	100

Query executed successfully.

EXPLANATION

CREATE TABLE is used to create table

Syntax-

CREATE TABLE table_name(column1 datatype,.....)

INSERT INTO is used to insert values in table

Syntax-

INSERT INTO table_name VALUES(values,.....)

TRIGGER is usually fired when an event occurs like update,delete,insert

There are two tables for data-

One is INSERTED which keeps New Data

other is DELETED which keeps Old Data

SELECT is used to display all(*) or specified column/columns

table_name.column_name , here it specifies that column_name is of table table_name

AS is used for alias, in other words it is used to change display name

INNER JOIN is used to join two table based on common column