**Identity column in SQL Server - Part 7**

If a column is marked as an identity column, then the values for this column are automatically generated, when you insert a new row into the table. The following, create table statement marks PersonId as an identity column with seed = 1 and Identity Increment = 1. Seed and Increment values are optional. If you don't specify the identity and seed they both default to 1.  
  
  
  
  
  
  
  
Create Table tblPerson  
(  
PersonId int Identity(1,1) Primary Key,  
Name nvarchar(20)  
)  
  
**In the following 2 insert statements, we only supply values for Name column and not for PersonId column.**  
Insert into tblPerson values ('Sam')  
Insert into tblPerson values ('Sara')  
  
If you select all the rows from tblPerson table, you will see that, 'Sam' and 'Sara' rows have got 1 and 2 as PersonId.  
  
Now, if I try to execute the following query, I get an error stating - An explicit value for the identity column in table 'tblPerson' can only be specified when a column list is used and IDENTITY\_INSERT is ON.   
Insert into tblPerson values (1,'Todd')  
  
So if you mark a column as an Identity column, you dont have to explicitly supply a value for that column when you insert a new row. The value is automatically calculated and provided by SQL server. So, to insert a row into tblPerson table, just provide value for Name column.  
Insert into tblPerson values ('Todd')  
  
Delete the row, that you have just inserted and insert another row. You see that the value for PersonId is 2. Now if you insert another row, PersonId is 3. A record with PersonId = 1, does not exist, and I want to fill this gap. To do this, we should be able to explicitly supply the value for identity column. To explicitly supply a value for identity column  
**1.** First turn on identity insert - SET Identity\_Insert tblPerson ON  
2. In the insert query specify the column list  
    Insert into tblPerson(PersonId, Name) values(2, 'John')  
  
As long as the Identity\_Insert is turned on for a table, you need to explicitly provide the value for that column. If you don't provide the value, you get an error - Explicit value must be specified for identity column in table 'tblPerson1' either when IDENTITY\_INSERT is set to ON or when a replication user is inserting into a NOT FOR REPLICATION identity column.   
  
After, you have the gaps in the identity column filled, and if you wish SQL server to calculate the value, turn off Identity\_Insert.  
SET Identity\_Insert tblPerson OFF  
  
If you have deleted all the rows in a table, and you want to reset the identity column value, use DBCC CHECKIDENT command. This command will reset PersonId identity column.  
DBCC CHECKIDENT(tblPerson, RESEED, 0)