DDL

- DDL is short name of Data Definition Language.
- DDL deals with database schemas like table.
- DDL Commands
  - CREATE – create the structure of a data base object (ex: table).
  - ALTER – alters the structure of the existing database.
  - DROP – delete objects from the database.
  - TRUNCATE – remove all records from a table, including all spaces allocated for the records are removed.

SQL Server data type

ALTER TABLE

- ALTER TABLE ADD COLUMN command. It will always add the new column at the last position in the table.

```
ALTER TABLE table_name
ADD
  column_name_1 data_type_1 column_constraint_1,
  column_name_2 data_type_2 column_constraint_2,
  ....,
  column_name_n data_type_n column_constraint_n;
```

Syntax:

Example:

```
ALTER TABLE Student ADD Phone_number VARCHAR(20) NULL;
```

- ALTER TABLE ADD COLUMN command. It will always add the new column at the last position in the table.

```
ALTER TABLE table_name
ADD
  column_name_1 data_type_1 column_constraint_1,
  column_name_2 data_type_2 column_constraint_2,
  ...,
  column_name_n data_type_n column_constraint_n;
```

Syntax:

Example:

```
ALTER TABLE Student ADD Phone_number VARCHAR(20) NULL;
```

ALTER TABLE

- If we want to delete more than one column we can use the following syntax:

Syntax:

```
ALTER TABLE table_name
DROP COLUMN column_name1, DROP COLUMN column_name2...
```

Example:

```
ALTER TABLE Student DROP COLUMN Phone_number;
```

- Add Constraint on the Column

Syntax:

```
ALTER TABLE table_name
ADD CONSTRAINT [constraint_name] PRIMARY KEY ([column_name])
```

Example:

```
ALTER TABLE Student ADD CONSTRAINT PrimaryKey PRIMARY KEY (Id);
```

INSERT INTO TABLE

- Insert Data into the table

Syntax:

```
INSERT INTO [database_name].[dbo].[table_name]
(column_name1, column_name2, ... )
VALUES
(value1, value2, ... );
```

- store single records for all fields,

Example:

```
INSERT INTO Student (Name, Gender, Age, Marks)
VALUES ('Peter Huges', 'Male', 32, 450);
```

- store multiple records for all fields, use SELECT * FROM student to display records in table

```
INSERT INTO Student
VALUES ('Jolly Evans', 'Female', 28, 475),
('Alan Simmons', 'Male', 32, 405)
('Laura Bennet', 'Female', 30, 435);
```

Example:

INSERT with SELECT statement:

- SQL Server also allows us to insert records from one table into another table using the INSERT INTO SELECT statement. Suppose we want to insert 'Student' table data into 'Student_info'.

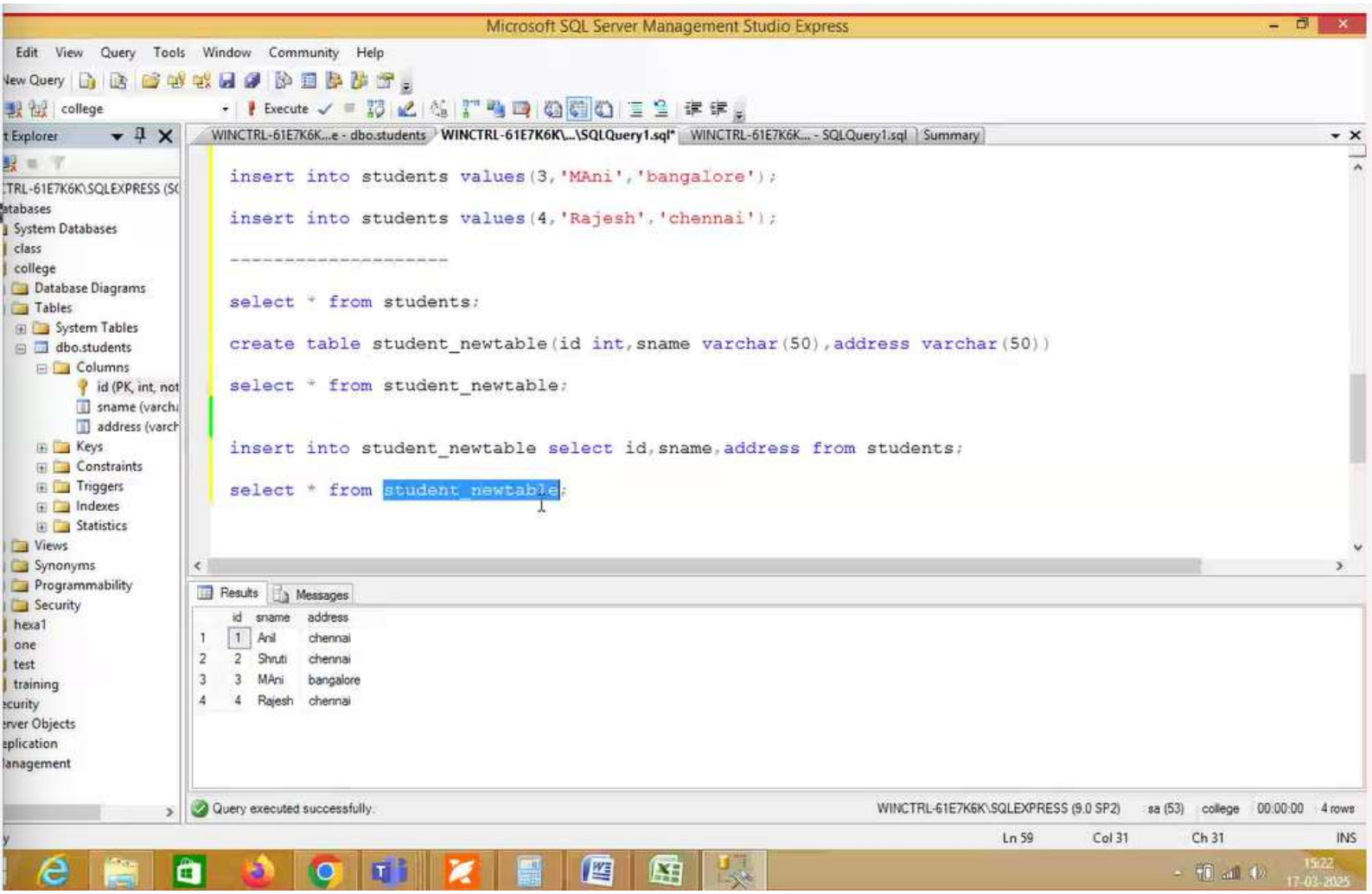
Example:

```
INSERT INTO Student_info
SELECT Name, Gender, Marks FROM Student;
```

- Insert and return inserted values?
  - SQL Server provides the OUTPUT clause for capturing the inserted values into a defined table. We can explain this concept by using the below statement that inserts a new record into the 'Student' table and returns the inserted value of the 'Marks' column

Example:

```
INSERT INTO Student (Name, Gender, Age, Marks )
OUTPUT inserted.Marks
VALUES ('J P Dumini', 'Male', 32, 450);
```


Microsoft SQL Server Management Studio Express
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college
Execute
WINCTRL-61E7K6K...e - dbo.students
WINCTRL-61E7K6K\...\SQLQuery1.sql*
WINCTRL-61E7K6K... - SQLQuery1.sql
Summary
insert into students values(3,'MAni','bangalore');
insert into students values(4,'Rajesh','chennai');
---
select * from students;
create table student_newtable(id int,sname varchar(50),address varchar(50))
select * from student_newtable;
insert into student_newtable select id,sname,address from students;
select * from student_newtable;
Results
Messages
id sname address
1 1 Anil chennai
2 2 Shruti chennai
3 3 MAni bangalore
4 4 Rajesh chennai
Query executed successfully.
WINCTRL-61E7K6K\SQLEXPRESS (9.0 SP2)
sa (53)
college
00:00:00
4 rows
Ln 59
Col 31
Ch 31
INS

Update Data in table

- The UPDATE query is always recommended to use with the SET and WHERE clause. We can modify or update the single or multiple columns at a time.

Syntax:

```
UPDATE [database_name].[ schema_name].table_name
SET column1 = new_value1,
    column2 = new_value2, ...
[WHERE Clause]
```

- Update Single Column

Example:

```
UPDATE Student
SET Marks = 492
WHERE Name = 'Alan Simmons';
```

- Update Multiple Column

Example:

```
UPDATE Student
SET Age = 28, Marks = 492
WHERE Name = 'Diego Bennet';
```

Delete table

- Use the DELETE statement to delete data from the existing table in the current schema or tables of the schema on which you have the DELETE privilege.

Syntax:

```
DELETE FROM table_name [WHERE Condition];
```

- delete Single record

Example:

```
DELETE FROM student WHERE id = 1;
```

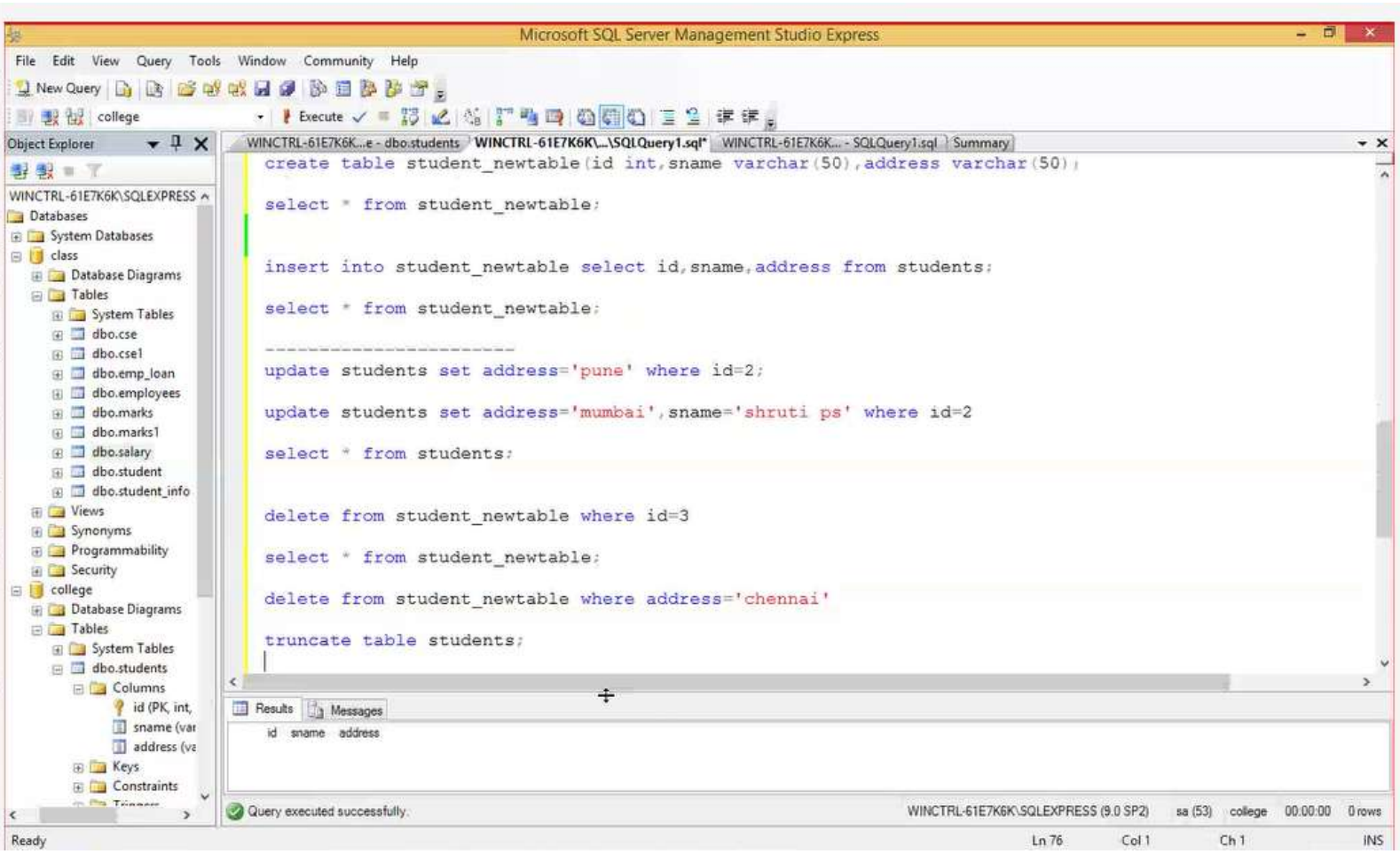
- delete Delete All Rows which results in Now, the Select * from Employee query will display the empty table.

Example:

```
DELETE FROM student;
```

- Drop a table that does not exist

Example: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New Query
college
Execute
Object Explorer
WINCTRL-61E7K6K\SQLEXPRESS
Databases
System Databases
class
Database Diagrams
Tables
System Tables
dbo.cse
dbo.cse1
dbo.emp_loan
dbo.employees
dbo.marks
dbo.marks1
dbo.salary
dbo.student
dbo.student_info
Views
Synonyms
Programmability
Security
college
Database Diagrams
Tables
System Tables
dbo.students
Columns
id (PK, int,
sname (var
address (va
Keys
Constraints
WINCTRL-61E7K6K...e - dbo.students
WINCTRL-61E7K6K\...\SQLQuery1.sql*
WINCTRL-61E7K6K... - SQLQuery1.sql
Summary
create table student_newtable(id int,sname varchar(50),address varchar(50);
select * from student_newtable;
insert into student_newtable select id,sname,address from students;
select * from student_newtable;
----
update students set address='pune' where id=2;
update students set address='mumbai',sname='shruti ps' where id=2
select * from students;
delete from student_newtable where id=3
select * from student_newtable;
delete from student_newtable where address='chennai'
truncate table students;
Results
Messages
id sname address
Query executed successfully.
WINCTRL-61E7K6K\SQLEXPRESS (9.0 SP2)
sa (53)
college
00:00:00
0 rows
Ready
Ln 76
Col 1
Ch 1
INS