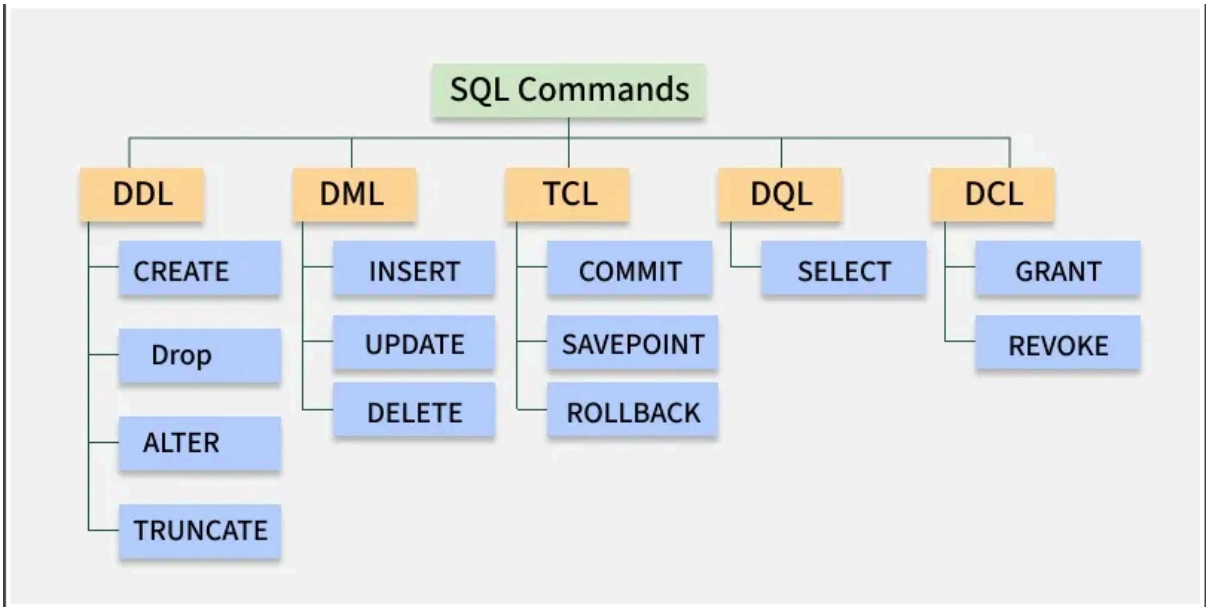
# SQL Server

## MS SQL

- How to create a database in easy way what explanation of details? Guide through lab.

## SQL Commands




## Create database and drop database commands

Now we use code.

Open sql query and type…

use master;
create database sales;

to delete database we type…

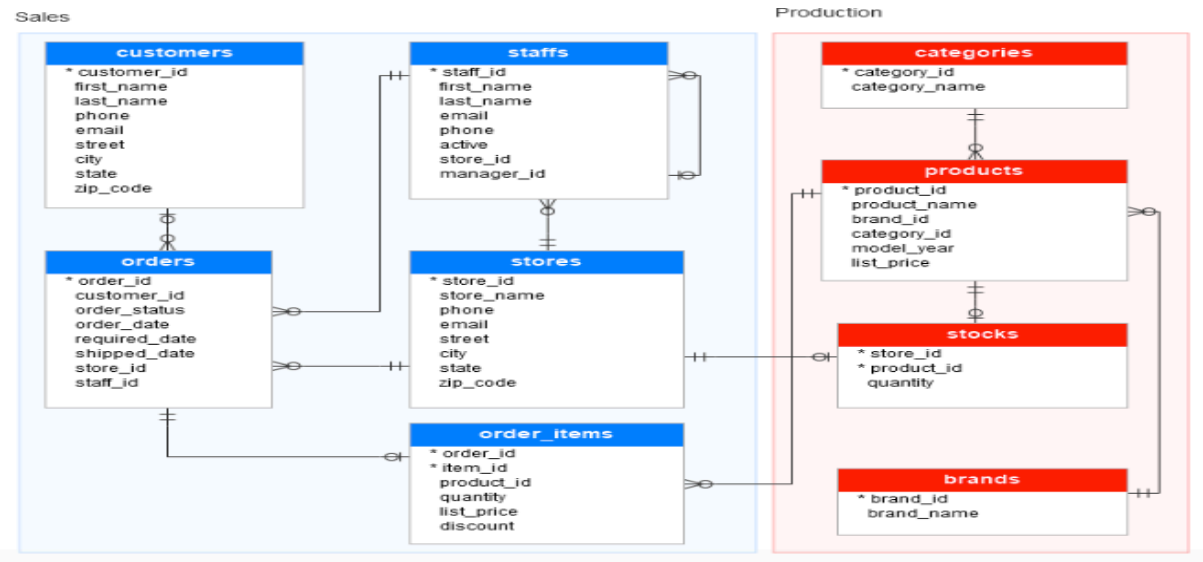
drop database sales;

Now create database with specific properties….

```
create database sales
on
( name = sales_data,
filename = 'C:\Program Files\Microsoft SQL
Server\MSSQL15.MSSQLSERVER\MSSQL\DATA\saledata.mdf',
size = 10,
maxsize = 50,
filegrowth = 5)

log on
(name = sales_log,
filename = 'C:\Program Files\Microsoft SQL
Server\MSSQL15.MSSQLSERVER\MSSQL\DATA\salelog.ldf',
size = 5MB,
maxsize = 25MB,
filegrowth = 5MB)
go
```

## Create Schema and drop schema commands




first we need to select the available database either from the option master or type command ….

```
use sales;
go
```

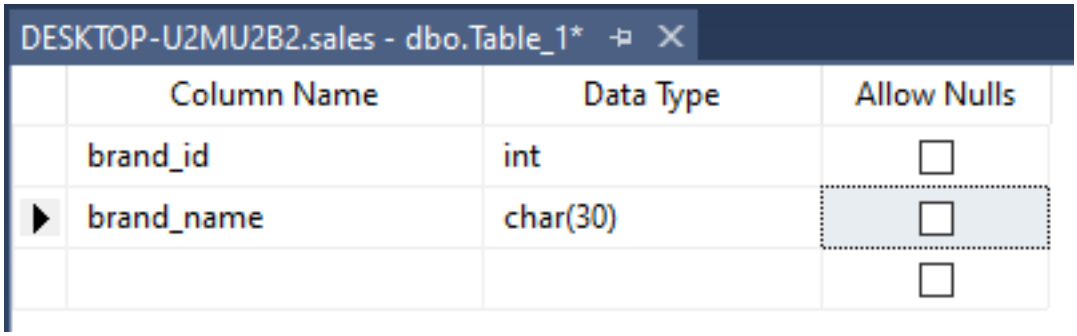
create schema sales_schema;
create schema production;
drop schema production;

note “not necessary to make schema but it better to use it if we do have more than one admin”

## Create Table

## First method

Right click on table inside database and select (new → table) this will show you graphical user interface to create table with properties.




then close it and type table name (Brands) then save.

Refresh the database and check the tables (dbo.Brands) dbo is the schema of owner.

Second method

```
use sales;
go
create table sales_schema.customers
(
customer_id int not null,
first_name varchar(15) not null,
last_name varchar(15) not null,
email varchar(50) not null,
phone varchar(15),
state varchar(15),
city varchar(15) not null,
street varchar(30) not null,
zip_code varchar(5)
);
```

Constraints (Primary Key Constraint)

To apply Primary Key there are two ways to do that,
First one

```
use sales;
go
create table sales_schema.customers
(
customer_id int primary key,
first_name varchar(15) not null,
last_name varchar(15) not null,
email varchar(50) not null,
phone varchar(15),
state varchar(15),
city varchar(15) not null,
street varchar(30) not null,
zip_code varchar(5)
);
```

second way

```
use sales;
go
create table sales_schema.customers
(
customer_id int not null,
first_name varchar(15) not null,
last_name varchar(15) not null,
email varchar(50) not null,
phone varchar(15),
state varchar(15),
city varchar(15) not null,
street varchar(30) not null,
zip_code varchar(5),

constraint customers_pk primary key (customer_id)

);
```

do brands and category tables

## Constraints (Unique Constraint)

### First method

```
use sales;
go
create table sales_schema.customers
(
customer_id int primary key,
first_name varchar(15) not null,
last_name varchar(15) not null,
email varchar(50) not null,
phone varchar(15) unique,
state varchar(15),
city varchar(15) not null,
street varchar(30) not null,
zip_code varchar(5)
);
```

### second method

```
use sales;
go
create table sales_schema.customers
(
customer_id int,
first_name varchar(15) not null,
last_name varchar(15) not null,
email varchar(50) not null,
phone varchar(15),
state varchar(15),
city varchar(15) not null,
street varchar(30) not null,
zip_code varchar(5),

constraint customers_uq unique(phone)
);
```

## Constraints (Check Constraint)

```
use sales;
go
create table staff
(
staff_id int primary key,
first_name varchar(20) not null,
last_name varchar(20) not null,
salary numeric (7,2) check (salary between 3000 and 15000),
hire_date date
);
```

## Constraints (Foreign Key Constraint)

```
 use sales;
go
create table store
(
store_id int primary key,
store_name varchar(20),
city varchar(20) not null,
phone varchar(10)
);
```

```
use sales;
go
create table staff
(
staff_id int primary key,
first_name varchar(20) not null,
last_name varchar(20) not null,
salary numeric (7,2) check (salary between 3000 and 15000),
hire_date date,
store_num int,
constraint store_staff_fk foreign key (store_num)
references store (store_id)
);
```