**Database Lab SQL Quires**

* [**NOT NULL**](https://www.w3schools.com/sql/sql_notnull.asp) **- Ensures that a column cannot have a NULL value**
* [**UNIQUE**](https://www.w3schools.com/sql/sql_unique.asp) **- Ensures that all values in a column are different**
* [**PRIMARY KEY**](https://www.w3schools.com/sql/sql_primarykey.asp) **- A combination of a NOT NULL and UNIQUE. Uniquely identifies each row in a table**
* [**FOREIGN KEY**](https://www.w3schools.com/sql/sql_foreignkey.asp) **- Prevents actions that would destroy links between tables**
* [**CHECK**](https://www.w3schools.com/sql/sql_check.asp) **- Ensures that the values in a column satisfies a specific condition**
* [**DEFAULT**](https://www.w3schools.com/sql/sql_default.asp) **- Sets a default value for a column if no value is specified**
* [**CREATE INDEX**](https://www.w3schools.com/sql/sql_create_index.asp) **- Used to create and retrieve data from the database very quickly**

**CREATE TABLE Persons (  
    ID int NOT NULL,  
    LastName varchar(255) NOT NULL,  
    FirstName varchar(255),  
    Age int CHECK (Age>=18)  
);**

**CREATE TABLE Persons (  
    ID int NOT NULL,  
    LastName varchar(255) NOT NULL,  
    FirstName varchar(255),  
    Age int,  
    City varchar(255),  
    CONSTRAINT CHK\_Person CHECK (Age>=18 AND City='Sandnes')  
);**

**Default constraint**

**CREATE TABLE Orders (  
    ID int NOT NULL,  
    OrderNumber int NOT NULL,  
    OrderDate date DEFAULT GETDATE()  
);**

**Auto increment where first 1 is starting point and 2nd 1 is step size**

**CREATE TABLE Persons (  
    Personid int IDENTITY(1,1) PRIMARY KEY,  
    LastName varchar(255) NOT NULL,  
    FirstName varchar(255),  
    Age int  
);**

**Dates in SQL Server**

* **DATE - format YYYY-MM-DD**
* **DATETIME - format: YYYY-MM-DD HH:MI:SS**
* **SMALLDATETIME - format: YYYY-MM-DD HH:MI:SS**
* **TIMESTAMP - format: a unique number**

**Alter Table quires**

alter table student add email varchar(30)

alter table student alter column email varchar(40)

alter table student drop column email

select distinct country\_id from countries

select count(country\_id) from countries

select count(distinct country\_id) from countries

**Some of the function SQL provide are given on below link.**

[**https://www.w3schools.com/sql/sql\_ref\_mysql.asp**](https://www.w3schools.com/sql/sql_ref_mysql.asp)

**Joins in MS SQL**

select first\_name as 'First Name' , department\_name from employees inner join departments on employees.department\_id = departments.department\_id