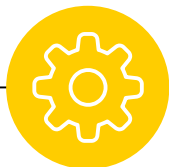


# welcome back



***SQL*** *Essentials*

# Roadmap

RDBMS  
ER Model



SQL Server  
DDL



DML  
Operator



Function  
SQL Clause



Join data



Sub Query



Best  
Practice





# Previous lecture

## SQL Server

- Structure query language
- take a look on UI
- First command
- SQL Components

## Data Definition Language

- Fun with database
- SQL data type
- Table In database
- Meaningful data with constraints
- SQL Process



# What we will explore today?

## DML

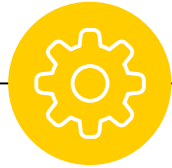
- INSERT
- UPDATE
- DELETE

## Select

- SELECT Syntax
- TOP & PERCENT
- ORDER
- ALIAS
- DISTINCT
- WHERE
- VIEW
- SELECT INTO

## Operator

- Arithmetic
- Compare
- Logical



# Data Manipulation Language (DML)



# Prepair the table structure

- Open file “LECTURE3\_CRUD\_DEMO.sql”

```
1  USE MASTER
2  GO
3  DROP DATABASE IF EXISTS LECTURE3_CRUD_DATA
4  GO
5  CREATE DATABASE LECTURE3_CRUD_DATA
6  GO
7  USE LECTURE3_CRUD_DATA
8  GO
9  CREATE TABLE Student(
10     ID int PRIMARY KEY,
11     FullName varchar(15) NOT NULL,
12     Email nchar(15) UNIQUE,
13     PhoneNumber varchar(12),
14     DateOfBirth date default '10/25/2000',
15     Math tinyint CHECK (Math >= 0 AND Math <= 10)
16 );
```



# Insert data into table syntax

```
INSERT INTO table_name (column1, column2, column3)  
VALUES (value1, value2, value3);
```

```
INSERT INTO Student (ID, FullName, Email, PhoneNumber, Math)  
VALUES (5, 'HUY', 'HUY@gmail.com', '0123456789', 5);
```

```
Messages  
  
(1 row affected)  
  
Completion time: 2022-11-09T16:52:32.3958910+07:00
```



# Check it

```
SELECT *  
FROM Student
```

Results		Messages				
	ID	FullName	Email	PhoneNumber	DateOfBirth	Math
1	5	HUY	HUY@gmail.com	0123456789	2000-10-25	5





# Insert multiple data to table

```
INSERT INTO table_name (column1, column2, column3)
VALUES (value1, value2, value3),
       (value4, value5, value6)
```

```
INSERT INTO Student(ID, FullName, Email, PhoneNumber, DateOfBirth, Math)
VALUES(4, 'LAN', 'LAN@gmail.com', '0123456789', '1/30/1999', 7),
      (3, 'HAO', 'HAO@gmail.com', '0123456789', '12/15/2000', 8)
```

Messages

(2 rows affected)

Completion time: 2022-11-09T17:04:47.7779414+07:00



# Check it

SELECT \*  
FROM Student

Results		Messages				
	ID	FullName	Email	PhoneNumber	DateOfBirth	Math
1	3	HAO	HAO@gmail.com	0123456789	2000-12-15	8
2	4	LAN	LAN@gmail.com	0123456789	1999-01-30	7
3	5	HUY	HUY@gmail.com	0123456789	2000-10-25	5



# @@ROWCOUNT

SELECT \* FROM Student

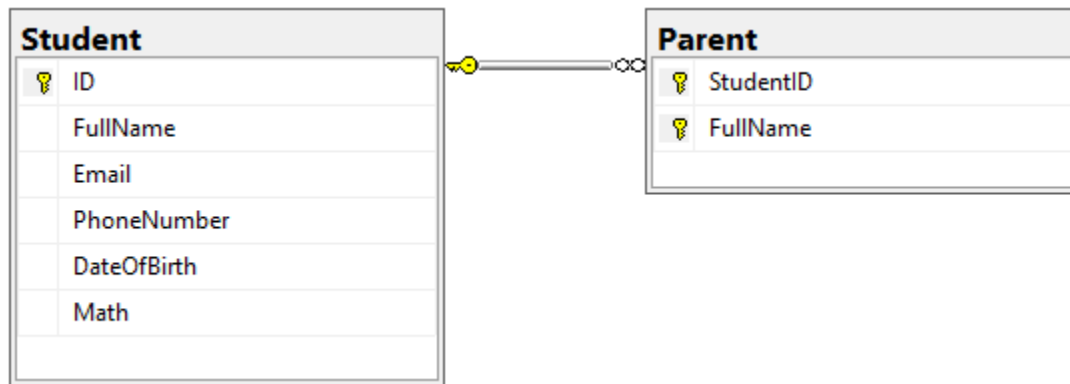
SELECT @@ROWCOUNT AS 'ROWCOUNT'

Results		Messages				
	ID	FullName	Email	PhoneNumber	DateOfBirth	Math
1	3	HAO	HAO@gmail.com	0123456789	2000-12-15	8
2	4	LAN	LAN@gmail.com	0123456789	1999-01-30	7
3	5	HUY	HUY@gmail.com	0123456789	2000-10-25	5
	ROWCOUNT					
1	3					



# Create child table

```
CREATE TABLE Parent(  
    StudentID int REFERENCES Student(ID),  
    FullName varchar(10) NOT NULL,  
    CONSTRAINT PK_StudentParent PRIMARY KEY (StudentID, FullName)  
);
```






# Insert Parent table

```
INSERT INTO Parent(StudentID, FullName)
VALUES(5, 'PaPa'),
      (5, 'Mama')
```



 Messages

(2 rows affected)

Completion time: 2022-11-09T17:14:49.3061441+07:00



# Check data

```
SELECT*  
FROM Parent
```



Results			Messages	
	StudentID	FullName		
1	5	Mama		
2	5	PaPa		



# Can we insert into Parent this?

Results		Messages				
	ID	FullName	Email	PhoneNumber	DateOfBirth	Math
1	3	HAO	HAO@gmail.com	0123456789	2000-12-15	8
2	4	LAN	LAN@gmail.com	0123456789	1999-01-30	7
3	5	HUY	HUY@gmail.com	0123456789	2000-10-25	5

```
INSERT INTO Parent(StudentID, FullName)
VALUES(1, 'Dung')
```

```
Msg 547, Level 16, State 0, Line 4
The INSERT statement conflicted with the FOREIGN KEY constraint "FK_Parent_StudentI_29572725". The c
The statement has been terminated.
```



# Update syntax

```
UPDATE table_name  
SET column1 = value1, column2 = value2, ...  
WHERE condition;
```

```
UPDATE Student  
SET FullName = 'HAHA'
```





# Update

```
UPDATE Student  
SET FullName = 'HAHA'
```



# The reset life button

```
SELECT *  
FROM Student
```

Results		Messages				
	ID	FullName	Email	PhoneNumber	DateOfBirth	Math
1	3	HAHA	HAO@gmail.com	0123456789	2000-12-15	8
2	4	HAHA	LAN@gmail.com	0123456789	1999-01-30	7
3	5	HAHA	HUY@gmail.com	0123456789	2000-10-25	5



How to undo a SQL Server UPDATE query



All



Videos



News



Images



Books



More

Tools

about 1.000.000 results (0.56 seconds)

[https://stackoverflow.com > questions > how-to-undo-a-...](https://stackoverflow.com/questions/how-to-undo-a-...)

## How to undo a SQL Server UPDATE query? - Stack Overflow

Jan 14, 2011 **NOPE** — GOOD LUCK...

6 answers · Top answer: RIP bro

How to **roll back UPDATE statement?** - sql server

Feb 3, 2014

How to **revert update query in sql** server? - Stack Overflow

Nov 5, 2012

**SQL update** undo - Stack Overflow

Nov 18, 2011

**Roll-back** last **UPDATE SQL query in SQL** Server 2014

Dec 30, 2015

More results from [stackoverflow.com](https://stackoverflow.com)



# Writing code with heart

```
UPDATE Student  
SET FullName = 'I AM A GOOD BOY'  
WHERE ID = 3
```

```
Messages  
  
(1 row affected)  
  
Completion time: 2022-11-09T20:06:07.2760570+07:00
```

Results		Messages				
	ID	FullName	Email	PhoneNumber	DateOfBirth	Math
1	3	I AM A GOOD BOY	HAO@gmail.com	0123456789	2000-12-15	8
2	4	HAHA	LAN@gmail.com	0123456789	1999-01-30	7
3	5	HAHA	HUY@gmail.com	0123456789	2000-10-25	5



## Practice

Modify FullName  
of Student  
who has ID = 4



# DELETE syntax

```
DELETE FROM table name  
WHERE condition;
```

```
DELETE FROM Student
```



Messages

Msg 547, Level 16, State 0, Line 39

The DELETE statement conflicted with the REFERENCE constraint "FK\_\_Parent\_\_StudentI.  
The statement has been terminated.

**DELETE all references data before delete it self**



# Delete data & cascade delete

DELETE FROM Parent



# Again... code with heart

```
DELETE FROM Student  
WHERE ID = 3
```



Messages

(1 row affected)

Completion time: 2022-11-09

Results

Messages

	ID	FullName	Email	PhoneNumber	DateOfBirth	Math
1	3	I AM A GOOD BOY	HAO@gmail.com	0123456789	2000-12-15	8
2	4	HAHA	LAN@gmail.com	0123456789	1999-01-30	7
3	5	HAHA	HUY@gmail.com	0123456789	2000-10-25	5



Results

Messages

	ID	FullName	Email	PhoneNumber	DateOfBirth	Math
1	4	HAHA	LAN@gmail.com	0123456789	1999-01-30	7
2	5	HAHA	HUY@gmail.com	0123456789	2000-10-25	5





Do it by your self

Remove Student  
who has ID = 4



# TRUNCATE

TRUNCATE TABLE Parent

 Messages

Commands completed successfully.

Completion time: 2022-11-30T21:10:29.4239651+07:00

```
SELECT *  
FROM Parent
```



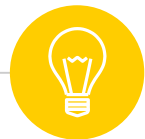
# TRUNCATE vs DELETE

## TRUNCATE TABLE Parent

- DDL
- DROP table & re-create table
- reset the IDENTITY

## DELETE FROM Parent

- DML
- DELETE all the data in table
- NOT RESET THE IDENTITY



**Hi!**

**SELECT**



# I got you

- Open file “LECTURE3\_PRACTICE\_SELECT.sql”

```
10 CREATE TABLE Student(  
11     ID int PRIMARY KEY,  
12     FullName nvarchar(20) NOT NULL,  
13     Math tinyint CHECK (Math >= 0 AND Math <= 10)  
14 );  
15  
16 INSERT INTO Student(ID, FullName, Math)  
17 VALUES(1007, 'Nga Nguyễn', 5),  
18         (1006, N'Nga Nguyễn', 6),  
19         (1005, N'Trung hồ', 7),  
20         (1001, N'Hào Phạm', 5),  
21         (1002, N'Lan Anh', 2),  
22         (1003, N'Phương Trần', 9),  
23         (1004, N'Mỹ lệ', 10),  
24         (1010, N'Lan Anh', 10),  
25         (1011, N'Khác Biệt', NULL);
```

Results		Messages	
	ID	FullName	Math
1	1001	Hào Phạm	5
2	1002	Lan Anh	2
3	1003	Phương Trần	9
4	1004	Mỹ lệ	10
5	1005	Trung hồ	7
6	1006	Nga Nguyễn	6
7	1007	Nga Nguy?n	5
8	1010	Lan Anh	10
9	1011	Khác Biệt	NULL



# SELECT syntax

```
SELECT ID, FullName  
FROM Student
```



	ID	FullName
1	1001	Hào Phạm
2	1002	Lan Anh
3	1003	Phường Trần
4	1004	Mỹ lệ
5	1005	Trung hồ
6	1006	Nga Nguyễn
7	1007	Nga Nguyễn
8	1010	Lan Anh
9	1011	Khác Biệt

```
SELECT *  
FROM Student
```



	ID	FullName	Math
1	1001	Hào Phạm	5
2	1002	Lan Anh	2
3	1003	Phường Trần	9
4	1004	Mỹ lệ	10
5	1005	Trung hồ	7
6	1006	Nga Nguyễn	6
7	1007	Nga Nguyễn	5
8	1010	Lan Anh	10
9	1011	Khác Biệt	NULL



# Alias

```
SELECT ID, FullName AS 'CỘT NÈ'  
FROM Student
```



	ID	CỘT NÈ
1	1001	Hào Phạm
2	1002	Lan Anh
3	1003	Phường Trần
4	1004	Mỹ lệ
5	1005	Trung hồ
6	1006	Nga Nguyễn
7	1007	Nga Nguy?n
8	1010	Lan Anh
9	1011	Khác Biệt

```
SELECT T.FullName FullNameAlias  
FROM Student T
```



	FullNameAlias
1	Hào Phạm
2	Lan Anh
3	Phường Trần
4	Mỹ lệ
5	Trung hồ
6	Nga Nguyễn
7	Nga Nguy?n
8	Lan Anh
9	Khác Biệt



# ORDER BY

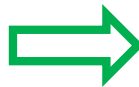
```
SELECT *  
FROM Student  
ORDER BY FullName
```

```
SELECT *  
FROM Student  
ORDER BY FullName ASC
```

```
SELECT *  
FROM Student  
ORDER BY FullName DESC
```



	ID	FullName	Math
1	1001	Hào Phạm	5
2	1011	Khác Biệt	NULL
3	1010	Lan Anh	10
4	1002	Lan Anh	2
5	1004	Mỹ lệ	10
6	1007	Nga Nguyễn	5
7	1006	Nga Nguyễn	6
8	1003	Phương Trần	9
9	1005	Trung hồ	7



	ID	FullName	Math
1	1005	Trung hồ	7
2	1003	Phương Trần	9
3	1006	Nga Nguyễn	6
4	1007	Nga Nguyễn	5
5	1004	Mỹ lệ	10
6	1002	Lan Anh	2
7	1010	Lan Anh	10
8	1011	Khác Biệt	NULL
9	1001	Hào Phạm	5





# ORDER BY multiple columns

```
SELECT *  
FROM Student  
ORDER BY FullName ASC
```

Results		Messages	
	ID	FullName	Math
1	1001	Hào Phạm	5
2	1011	Khắc Biệt	NULL
3	1010	Lan Anh	10
4	1002	Lan Anh	2
5	1004	Mỹ lệ	10
6	1007	Nga Nguy?n	5
7	1006	Nga Nguyễn	6
8	1003	Phương Trần	9
9	1005	Trung hồ	7

```
SELECT *  
FROM Student  
ORDER BY FullName ASC, Math ASC
```

Results		Messages	
	ID	FullName	Math
1	1001	Hào Phạm	5
2	1011	Khắc Biệt	NULL
3	1002	Lan Anh	2
4	1010	Lan Anh	10
5	1004	Mỹ lệ	10
6	1007	Nga Nguy?n	5
7	1006	Nga Nguyễn	6
8	1003	Phương Trần	9
9	1005	Trung hồ	7



# SELECT TOP

SELECT TOP 3 \*  
FROM Student



	ID	FullName	Math
1	1001	Hào Phạm	5
2	1002	Lan Anh	2
3	1003	Phương Trần	9

SELECT TOP 3 \*  
FROM Student  
ORDER BY FullName



	ID	FullName	Math
1	1001	Hào Phạm	5
2	1011	Khác Biệt	NULL
3	1002	Lan Anh	2

SELECT \*  
FROM Student  
ORDER BY FullName DESC



	ID	FullName	Math
1	1005	Trung hồ	7
2	1003	Phương Trần	9
3	1006	Nga Nguyễn	6
4	1007	Nga Nguy?n	5
5	1004	Mỹ lệ	10
6	1002	Lan Anh	2
7	1010	Lan Anh	10
8	1011	Khác Biệt	NULL
9	1001	Hào Phạm	5



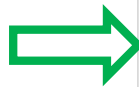
# WITH TIES

```
SELECT TOP 1 *  
FROM Student  
ORDER BY Math DESC
```



	ID	FullName	Math
1	1004	Mỹ lệ	10

```
SELECT TOP 1 WITH TIES *  
FROM Student  
ORDER BY Math DESC
```



	ID	FullName	Math
1	1004	Mỹ lệ	10
2	1010	Lan Anh	10

	ID	FullName	Math
1	1001	Hào Phạm	5
2	1002	Lan Anh	2
3	1003	Phương Trần	9
4	1004	Mỹ lệ	10
5	1005	Trung hồ	7
6	1006	Nga Nguyễn	6
7	1007	Nga Nguy?n	5
8	1010	Lan Anh	10
9	1011	Khác Biệt	NULL



# SELECT PERCENT

```
SELECT TOP 50 PERCENT ID, FullName  
FROM Student  
ORDER BY FullName DESC
```



Results		Messages
	ID	FullName
1	1005	Trung hồ
2	1003	Phường Trần
3	1006	Nga Nguyễn
4	1007	Nga Nguy?n
5	1004	Mỹ lệ



# DISTINCT

```
SELECT FullName  
FROM Student
```

```
SELECT DISTINCT FullName  
FROM Student
```



	FullName
1	Hào Phạm
2	Lan Anh
3	Phường Trần
4	Mỹ lệ
5	Trung hồ
6	Nga Nguyễn
7	Nga Nguyễn
8	Lan Anh
9	Khác Biệt



	FullName
1	Hào Phạm
2	Khác Biệt
3	Lan Anh
4	Mỹ lệ
5	Nga Nguyễn
6	Nga Nguyễn
7	Phường Trần
8	Trung hồ



# DISTINCT multiple column

```
SELECT DISTINCT FullName  
FROM Student
```

	FullName
1	Hào Phạm
2	Khác Biệt
3	Lan Anh
4	Mỹ lệ
5	Nga Nguy?n
6	Nga Nguyễn
7	Phường Trần
8	Trung hồ

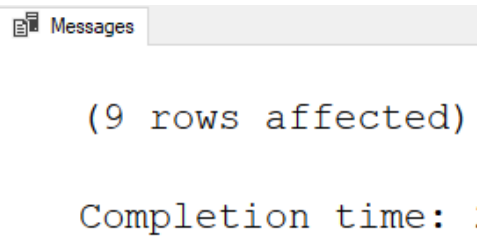
```
SELECT DISTINCT ID, FullName  
FROM Student
```

	ID	FullName
1	1001	Hào Phạm
2	1002	Lan Anh
3	1003	Phường Trần
4	1004	Mỹ lệ
5	1005	Trung hồ
6	1006	Nga Nguyễn
7	1007	Nga Nguy?n
8	1010	Lan Anh
9	1011	Khác Biệt



# SELECT INTO

```
SELECT ID, FullName  
INTO newTable  
FROM Student
```



```
SELECT *  
FROM NewTable
```

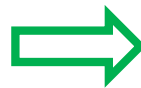


	ID	FullName
1	1001	Hào Phạm
2	1002	Lan Anh
3	1003	Phương Trần
4	1004	Mỹ lệ
5	1005	Trung hồ
6	1006	Nga Nguyễn
7	1007	Nga Nguyễn
8	1010	Lan Anh
9	1011	Khác Biệt



# WHERE

```
SELECT FullName, Math  
FROM Student
```



	FullName	Math
1	Hào Phạm	5
2	Lan Anh	2
3	Phương Trần	9
4	Mỹ lệ	10
5	Trung hồ	7
6	Nga Nguyễn	6
7	Nga Nguyễn	5
8	Lan Anh	10
9	Khác Biệt	NULL

```
SELECT FullName, Math  
FROM Student  
WHERE Math > 5
```



Results			Messages	
	FullName	Math		
1	Phương Trần	9		
2	Mỹ lệ	10		
3	Trung hồ	7		
4	Nga Nguyễn	6		
5	Lan Anh	10		





# VIEW

```
CREATE VIEW HELLO_VIEW AS  
SELECT FullName, Math  
FROM Student  
WHERE Math > 5
```



Messages

Commands completed successfully.

Completion time: 2022-11-09T21:41:16.0419229+07:00

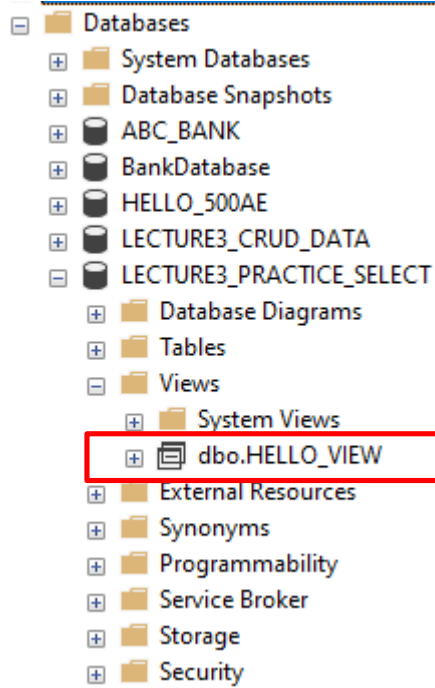
```
SELECT *  
FROM HELLO_VIEW
```



	FullName	Math
1	Phuong Trần	9
2	Mỹ lệ	10
3	Trung hồ	7
4	Nga Nguyễn	6
5	Lan Anh	10



# View location





# SQL Operators



# Arithmetic operators

SELECT 30 + 20 AS 'CỘNG NÈ';  
SELECT 30 - 20 AS 'TRỪ NÈ';  
SELECT 30 \* 20 AS 'NHÂN NÈ';  
SELECT 30 / 20 AS 'CHIA NÈ';  
SELECT 30 % 20 AS 'CHIA LẤY DƯ NÈ';



	CỘNG NÈ
1	50

	TRỪ NÈ
1	10

	NHÂN NÈ
1	600

	CHIA NÈ
1	1

	CHIA LẤY DƯ NÈ
1	10



# Comparison operators

Operator	Description
=	Equal to
>	Greater than
<	Less than
>=	Greater than or equal to
<=	Less than or equal to
<> or !=	Not equal to



# Try it

```
SELECT FullName, Math  
FROM Student  
WHERE Math > 5
```



Results			Messages	
	FullName	Math		
1	Phường Trần	9		
2	Mỹ lệ	10		
3	Trung hồ	7		
4	Nga Nguyễn	6		
5	Lan Anh	10		

```
SELECT ID, FullName, Math  
FROM Student  
WHERE FullName = 'Lan Anh'
```



Results				Messages	
	ID	FullName	Math		
1	1002	Lan Anh	2		
2	1010	Lan Anh	10		

Results				Messages	
	ID	FullName	Math		
1	1001	Hào Phạm	5		
2	1002	Lan Anh	2		
3	1003	Phường Trần	9		
4	1004	Mỹ lệ	10		
5	1005	Trung hồ	7		
6	1006	Nga Nguyễn	6		
7	1007	Nga Nguyễn	5		
8	1010	Lan Anh	10		
9	1011	Khác Biệt	NULL		



# Logical operators



```
SELECT ID, FullName  
FROM Student  
WHERE FullName = 'Lan Anh' AND ID = 1010
```



Results			Messages		
	ID	FullName			
1	1010	Lan Anh			

Results			Messages		
	ID	FullName	Math		
1	1001	Hào Phạm	5		
2	1002	Lan Anh	2		
3	1003	Phường Trần	9		
4	1004	Mỹ lệ	10		
5	1005	Trung hồ	7		
6	1006	Nga Nguyễn	6		
7	1007	Nga Nguyễn	5		
8	1010	Lan Anh	10		
9	1011	Khác Biệt	NULL		





```
SELECT ID, FullName  
FROM Student  
WHERE FullName = 'Lan Anh' OR ID = 1005
```



	ID	FullName
1	1002	Lan Anh
2	1005	Trung hồ
3	1010	Lan Anh

	ID	FullName	Math
1	1001	Hào Phạm	5
2	1002	Lan Anh	2
3	1003	Phường Trần	9
4	1004	Mỹ lệ	10
5	1005	Trung hồ	7
6	1006	Nga Nguyễn	6
7	1007	Nga Nguyễn	5
8	1010	Lan Anh	10
9	1011	Khác Biệt	NULL



# BETWEEN - AND

```
SELECT ID, FullName  
FROM Student  
WHERE ID BETWEEN 1003 AND 1005
```



	ID	FullName
1	1003	Phương Trần
2	1004	Mỹ lệ
3	1005	Trung hồ

	ID	FullName	Math
1	1001	Hào Phạm	5
2	1002	Lan Anh	2
3	1003	Phương Trần	9
4	1004	Mỹ lệ	10
5	1005	Trung hồ	7
6	1006	Nga Nguyễn	6
7	1007	Nga Nguyễn	5
8	1010	Lan Anh	10
9	1011	Khác Biệt	NULL



# LIKE

```
SELECT ID, FullName  
FROM Student  
WHERE FullName LIKE '%U%';
```



	ID	FullName
1	1005	Trung hồ
2	1006	Nga Nguyễn
3	1007	Nga Nguyễn

	ID	FullName	Math
1	1001	Hào Phạm	5
2	1002	Lan Anh	2
3	1003	Phuong Trần	9
4	1004	Mỹ lệ	10
5	1005	Trung hồ	7
6	1006	Nga Nguyễn	6
7	1007	Nga Nguyễn	5
8	1010	Lan Anh	10
9	1011	Khác Biệt	NULL



# SQL Wildcards

LIKE Operator	Description
WHERE CustomerName LIKE 'a%'	Finds any values that start with "a"
WHERE CustomerName LIKE '%a'	Finds any values that end with "a"
WHERE CustomerName LIKE '%or%'	Finds any values that have "or" in any position
WHERE CustomerName LIKE '_r%'	Finds any values that have "r" in the second position
WHERE CustomerName LIKE 'a_%'	Finds any values that start with "a" and are at least 2 characters in length
WHERE CustomerName LIKE 'a__%'	Finds any values that start with "a" and are at least 3 characters in length
WHERE ContactName LIKE 'a%o'	Finds any values that start with "a" and ends with "o"



# NOT

```
SELECT ID, FullName  
FROM Student  
WHERE ID NOT BETWEEN 1003 AND 1005
```



	ID	FullName
1	1001	Hào Phạm
2	1002	Lan Anh
3	1006	Nga Nguyễn
4	1007	Nga Nguyễn
5	1010	Lan Anh
6	1011	Khác Biệt

```
SELECT ID, FullName, Math  
FROM Student  
WHERE NOT Math > 5
```



Results		Messages	
	ID	FullName	Math
1	1001	Hào Phạm	5
2	1002	Lan Anh	2
3	1007	Nga Nguyễn	5



# IS NULL

```
SELECT ID, FullName, Math  
FROM Student  
WHERE Math IS NULL
```



Results		Messages	
	ID	FullName	Math
1	1011	Khác Biệt	NULL

```
SELECT ID, FullName, Math  
FROM Student  
WHERE Math IS NOT NULL
```



Results		Messages	
	ID	FullName	Math
1	1001	Hào Phạm	5
2	1002	Lan Anh	2
3	1003	Phương Trần	9
4	1004	Mỹ lệ	10
5	1005	Trung hồ	7
6	1006	Nga Nguyễn	6
7	1007	Nga Nguyễn	5
8	1010	Lan Anh	10

Results		Messages	
	ID	FullName	Math
1	1001	Hào Phạm	5
2	1002	Lan Anh	2
3	1003	Phương Trần	9
4	1004	Mỹ lệ	10
5	1005	Trung hồ	7
6	1006	Nga Nguyễn	6
7	1007	Nga Nguyễn	5
8	1010	Lan Anh	10
9	1011	Khác Biệt	NULL



# Big picture

```
SELECT column_data  
FROM source  
      JOIN source2  
WHERE condition  
GROUP BY  
HAVING condition  
ORDER BY sort [ASC|DESC]
```





# Extra Resources

Name	Link
became SQL god?	<a href="https://www.w3schools.com/sql/default.asp">https://www.w3schools.com/sql/default.asp</a>