

Select-----

\*Comparison operators =, >, <, >=, <=, and <>

\*String comparisons LIKE and NOT LIKE

\*Logical operators: combination of conditions AND, OR

\*Logical operator: negations NOT

\*Range of values BETWEEN and NOT BETWEEN

\*Lists of values IN and NOT IN

\*Unknown values IS NULL and IS NOT NULL

-----Comparison operators-----

select \* from student where class\_name='A'

select \* from student where student\_ID>4

select \* from student where student\_ID>=4

select \* from student where student\_ID<4

select \* from student where student\_ID<=4

select \* from student where student\_ID<>4    <> IS THE SAME as !=

-----String Comparison-----

LIKE 'BR%' Every name beginning with the letters BR

LIKE '%een' Every name ending with the letters een

LIKE '%en%' Every name containing the letters en

LIKE '\_en' Every three-letter name ending in the letters en

LIKE '[CK]%' Every name beginning with the letter C or K

LIKE '[S-V]ing' Every four-letter name ending in the letters ing and beginning  
with any single letter from S to V

LIKE 'M[^c]%' Every name beginning with the letter M that does not have the  
letter c as the second letter

select \* from student where student\_name like 'ahmad%' /\*don't differ if Ahmad\*/

select \* from student where student\_name not like 'ahmad%'

-----Logical operations-----

Use the AND operator to retrieve rows that meet all of the search criteria.

Use the OR operator to retrieve rows that meet any of the search criteria.

Use the NOT operator to negate the expression that follows the operator.

select \* from class where (Class\_Name like '%v%' or Class\_Name like '%h') and (Teacher\_ssn like '307\_\_')

-----Range Operator-----

select \* from student where student\_id between 1 and 3 /\*1 and 3 included, like >=1 and <=3 \*/

select \* from student where student\_id not between 1 and 3 /\*outside this range, its slower\*/

-----List of values-----

select \* from CLASS where class\_name in ('CLASS a','CLASS b') /\*in class a or class b\*/

select \* from CLASS where class\_name not in ('class a','class b')

-----sorting data-----

select \* from student order by student\_fname asc

select \* from student order by student\_fname asc, student\_minit asc

select class\_name, class\_floor from class order by 1,2 desc /\*position of column in select list\*/

-----use literals-----

SELECT student\_fname, student\_lname

, 'Identification number:', student\_id

FROM student

-----using concatenate-----

select student\_fname+ ' ' +student\_lname as name from student

-----Select null and distinct-----

```
select * from student where st_age is null
```

```
select * from student where st_age is not null
```

## Remember from previous sections:

```
select distinct class_name,class_floor from class order by class_name
```

/\*it will not get the repeated class\_name & class\_floor together,must be order by class\_name cause in the select\*/

----- Listing the TOP n Values-----

Ex1:

```
select top(1) student_fname,student_minit from student order by student_fname
```

Ex2:

```
select top(1) with ties student_fname,student_minit from student order by  
student_fname
```