
Main syntax:

SELECT column_list
FROM table_list
[**WHERE** search_condition]
[**GROUP BY** column_list]
[**HAVING** search_condition]
[**ORDER BY** {column_list | column_index}]

SELECT column_list **FROM** table_list

Example:
SELECT * FROM TB_STU_Student

select enname, chname from TB_STU_STUDENT

select distinct classcode from TB_STU_STUDENT

select enname + ' (' + chname + ')' from TB_STU_STUDENT

TABLE ALIAS / *Column Alias*

Example:
select **a.**enname AS *'English Name'*, **a.**chname *'Chinese Name'*,
enname + ' (' + **a.**chname + ')' *Student* from TB_STU_STUDENT **a**

ORDER BY

select classcode, classno, enname, chname from TB_STU_STUDENT
order by classcode **desc**, classno **asc**

WHERE

- Comparison: =, <, >, <=, >=, <>
- Range: [NOT] **BETWEEN** start_value **AND** end_value
- Membership: [NOT] **IN** (value list)
- Pattern Match: [NOT] **LIKE** pattern_string
- Wildcard characters : % _
- NULL: **IS** [NOT] **NULL**

Example:

SELECT ClassCode, EnName, ChName FROM TB_STU_Student
WHERE EnName **LIKE** 'CHAN %' ORDER BY EnName

Functions for Date field

- YEAR(date_field)
- MONTH(date_field)
- DAY(date_field)
- NOW()
- getDate()
- DATEFORMAT(date_field, date_format)

Example:
SELECT DOB, year(DOB), month(DOB), day(DOB), now(),
dateformat(DOB, 'DD/MM-YYYY') FROM TB_STU_Student where YEAR(dob) = 1989

Functions for Text field

- UPPER(text_field)
- LOWER(text_field)
- TRIM(text_field)
- LEFT(text_field, length)
- RIGHT(text_field, length)

- SUBSTRING(text_field, start position, length)
- LENGTH(text_field)

Example:
SELECT enname, LOWER(enname), TRIM(enname), SUBSTRING(enname, 3, 5),
LENGTH(enname) FROM TB_STU_Student

Aggregation Functions and Group by

- COUNT([DISTINCT] field)
- SUM([DISTINCT] field)
- AVG([DISTINCT] field)
- MAX(field)
- MIN(field)

Example 1:
SELECT ClassCode 'Class', Sex, **COUNT**(*) 'No. of Student'
FROM TB_STU_Student WHERE ClassCode in ('1A','1B','1C','1D','1E')
GROUP BY ClassCode, Sex ORDER BY ClassCode, Sex

Example 2:
SELECT stuid, **MIN**(firstattdate) 'First Attend Date'
FROM TB_STU_STUSCHREC **group by** stuid

HAVING

Example
SELECT ClassCode 'Class', **COUNT(EnName)** 'No. of Student'
FROM TB_STU_Student WHERE ClassCode <> '' GROUP BY ClassCode
HAVING COUNT(EnName) > 40 ORDER BY ClassCode

CASE WHEN ….

```
SELECT ClassCode, ClassNo, AreaCode,
   CASE WHEN AreaCode = 1 THEN ‘Hong Kong’
      WHEN AreaCode = 2 THEN ‘Kowloon'
      WHEN AreaCode = 3 THEN ‘N.T.'
      ELSE 'N/A'
END 'AREA'
FROM TB_STU_Student
ORDER BY ClassCode DESC, ClassNo
```

INNER JOIN

```
select a.enname 'Student Name' , b.enname 'Parent Name'
from TB_STU_STUDENT a
join TB_STU_PARENT b on a.stuid=b.stuid
```

OR

```
select a.enname 'Student Name' , b.enname 'Parent Name'
from TB_STU_STUDENT a, TB_STU_PARENT b
where a.stuid=b.stuid
```

LEFT OUTER JOIN

```
select a.classcode, a.classno, a.enname 'Student Name' , b.enname 'Parent Name'
from TB_STU_STUDENT a
left outer join TB_STU_PARENT b on a.stuid=b.stuid
where a.classcode='1A'
order by a.classcode, a.classno
```
