SQL Syntax and functions

PowerPoint, reference material and exercise can be downloaded at :

http://cdr.websams.edb.gov.hk/

CONVERT function [Data type conversion]

Returns an expression converted to a supplied data type.

CONVERT( datatype, expression [ , format-style ] )

e.g. SELECT CONVERT(integer, 5.2) from dummy

COUNT function [Aggregate]

Counts the number of rows in a group depending on the specified parameters.

COUNT(\* | expression | DISTINCT expression )

e.g. SELECT COUNT(\*) FROM TB\_HSE\_COMMON;

SUM function [Aggregate]

Returns the total of the specified expression for each group of rows.

SUM( expression | DISTINCT expression )

e.g. SELECT SUM(WEIGHT) FROM vw\_stu\_lateststudent

MAX function [Aggregate]

Returns the maximum expression value found in each group of rows.

MAX( expression | DISTINCT expression )

e.g. SELECT MAX(WEIGHT) FROM vw\_stu\_lateststudent

MIN function [Aggregate]

Returns the minimum expression value found in each group of rows.

MIN( expression | DISTINCT expression )

e.g. SELECT MIN(WEIGHT) FROM vw\_stu\_lateststudent

DATEFORMAT function [Date and time]

Returns a string representing a date expression in the specified format.

DATEFORMAT( datetime-expression, string-expression )

e.g. SELECT DATEFORMAT('2018-01-01', 'Mmm dd, yyyy') from dummy

DAYNAME function [Date and time]

Returns the name of the day of the week from a date.

DAYNAME( date-expression )

e.g. SELECT DAYNAME('2018/05/02') from dummy

MONTHNAME function [Date and time]

Returns the name of the month from a date.

MONTHNAME( date-expression )

e.g. SELECT MONTHNAME('2018-09-05') from dummy

LENGTH function [String]

Returns the number of characters in the specified string.

LENGTH( string-expression )

e.g. SELECT LENGTH('websams') from dummy

SUBSTRING function [String]

Returns a substring of a string.

{ SUBSTRING | SUBSTR } ( string-expression, start[, length ] )

e.g. SELECT SUBSTR('websams',2,3) from dummy

TRIM function [String]

Removes leading and trailing blanks from a string.

TRIM( string-expression )

e.g. SELECT TRIM(' websams ') from dummy

REPLACE function [String]

Replaces a string with another string, and returns the new results.

REPLACE( original-string, search-string, replace-string )

e.g. SELECT replace('websams', 'web', 'xxx') from dummy

SQL Syntax and functions

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**SELECT** column\_list

**FROM** table\_list

[**WHERE** search\_condition]

[**ORDER BY** {column\_list | column\_index}]

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**SELECT** column\_list **FROM** table\_list

Example:

SELECT \* FROM TB\_STU\_Student

select enname, chname from TB\_STU\_STUDENT

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**ORDER BY**

select classcode, classno, enname, chname from TB\_STU\_STUDENT

**order by** classcode **desc**, classno **asc**

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**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