**SQL DW Queries Syntax Analysis**

**1. Join of two or more tables with simple and compound conditions using the following format**

**Keywords:** “SELECT”, “ALL”, “DISTINCT”, “FROM”, “WHERE”(optional)

SELECT { ALL | DISTINCT } [ \* | field\_name[, field\_name]...]

* FROM [table\_name [,table\_name]..]
* [WHERE predicate]

**Example:**

**SELECT** **DISTINCT** SNAME, PNO **FROM** S, ORDERS **WHERE** S.SNO = ORDERS.SNO;

**2. FunctionName: Count, AVG, Sum, Min, Max**

**Keywords:** “SELECT”, “FROM”, “WHERE”(optional) **, “**COUNT”, “AVG”, “SUM”, “MIN”, “MAX”

SELECT [ \* | field\_name[, field\_name]...]

* [, FunctionName ( {field-name |[\*] } ) [, FunctionName ( {field-name |[\*] } )]...]
* FROM [table\_name [,table\_name]..]
* [WHERE predicate]

**3. Use of GROUPING and HAVING**

**Keywords:** “SELECT”, “FROM”, “GROUP”(optional), “HAVING”(optional), **“**COUNT”, “AVG”, “SUM”, “MIN”, “MAX”

SELECT [ \* | field\_name[, field\_name]...]

* [, FunctionName ( {field-name |[\*] } ) [, FunctionName ( {field-name |[\*] } )]...]
* FROM [table\_name [,table\_name]..]
* [GROUP BY field-name (s)]
* [HAVING Predicate];

**Examples:**

**SELECT** SNO, **SUM**(TTLQTY), **AVG**(TTLQTY), **MAX**(TTLQTY), **MIN**(TTLQTY) **FROM** ORDERS **GROUP BY** SNO;

**SELECT** SNO, **SUM**(TTLQTY), **AVG**(TTLQTY), **MAX**(TTLQTY), **MIN**(TTLQTY) **FROM** ORDERS **GROUP BY** SNO **HAVING COUNT** (\*) < 4;

**4. Use of GROUPING SETS option to allow the user to specify exactly which particular groupings should participate**

**Keywords:** “SELECT”, “SUM”, “AS”, “FROM”, “GROUP BY GROUPING SETS”

SELECT field\_name-1, field\_name-2, ...,

* SUM (field\_name)
* AS Attribute-Name
* FROM table-name
* GROUP BY GROUPING SETS ( (field\_name-1), (field\_name-2)... );

**Example:**

**SELECT** S#, P#, **SUM**(QTY) **AS** TOTQTY **FROM** SP **GROUP BY GROUPING SETS** ( (S#), (P#) );

**5. Use of ROLLUP option in GROUP BY**

**Keywords:** “SELECT”, “SUM”, “AS”, “FROM”, “GROUP BY ROLLUP”

SELECT field\_name-1, field\_name-2, ...,

* SUM (field\_name)
* AS Attribute-Name
* FROM table-name
* GROUP BY ROLLUP ( field\_name-1, field\_name-2 ... );

**Example:**

**SELECT** S#, P#, **SUM(**QTY) **AS** TOTQTY **FROM** SP **GROUP BY ROLLUP** ( S#, P# ) ;

**6. Use of CUBE option in GROUP BY**

**Keywords:** “SELECT”, “SUM”, “AS”, “FROM”, “GROUP BY CUBE”

SELECT field\_name-1, field\_name-2, ..., SUM(field\_name) AS Attribute-Name

* FROM table-name
* GROUP BY CUBE ( field\_name-1, field\_name-2 ... );

**Example:**

**SELECT** S#, P#, **SUM**(QTY) **AS** TOTQTY **FROM** SP **GROUP BY CUBE** ( S#, P# ) ;