ABAP statement and Keyword

Statement

The ABAP programming language consists of the following element types: STATEMENT, KEYWORD, COMMENT.

An ABAP program consists of individual ABAP statements. Each statement begins with a keyword and ends with a period. There might be comment in the same line as a statement

For example:

```
PROGRAM ZTEST.
WRITE ‘Hello world’.
```

In this case program ZTEST will generate the list consist of line ‘Hello world’.

ABAP statement and Keyword(con't)

Keywords

Declarative keywords : define data types or declare the data objects

Modularization keywords : define processing blocks in an ABAP program

- Event keyword :The respective processing blocks are processed as soon as a particular event occurs
- Define keyword: define processing blocks that are processed as soon as they are called by an explicit statement in an ABAP program or in a screen flow logic

Control keywords: control the flow of an ABAP program according to certain conditions

Calling keywords: call processing blocks (defined by modularization keywords) in the same or other ABAP programs or branch completely to other ABAP programs

Expression and Operation keywords: Process the data

ABAP statement and Keyword(con't)

Declarative keywords

TYPES create user-defined elementary data types and structured data types

Example TYPES: surname(20) TYPE C.

DATA define local/global variable for structure/internal table/memory block

```
Example DATA: BEGIN OF a  address OCCURS 0
                address_number(10) TYPE C,
                street(30),
                country LIKE T001-LAND1,
              END OF address.
```

Internal table

TABLES create a data object called a table work area refer to ABAP dictionary(tables, structure,view)

Example TABLES: KNA1, KNB1.

CONSTANTS declare it as a fixed value variable

Example CONSTANTS: name(10) VALUE 'Exxon Mobil'

Modularization keywords

Event define keywords

INITIALIZATION	Before selection screen is displayed
AT SELECTION-SCREEN	After input selection screen + selection screen is active
START-OF-SELECTION	After process selection screen
GET <table>	when logical DB offer a line of database table
END-OF-SELECTION	After all selection has been done
TOP-OF-PAGE	Process when new page is started
END-OF-PAGE	Process when page is ended
AT LINE-SELECTION	When user select line in the list
AT USER-COMMAND	When user press function key/enter command in command field

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Modularization keywords (con’t)

Process define key word for statement block

FORM...ENDFORM	Define subroutine
FUNCTION...ENDFUNCTION	Define Function module
MODULE...ENDMODULE	After process selection screen

Built in function

Arithmetic & string function

ABS	Amount (absolute value) x von x
SIGN	Sign of x; SIGN(x) = 1 if x > 0 SIGN(x) = 0 if x = 0 SIGN(x) = -1 if x < 0
CEIL	Smallest integer value that is not less than x
FLOOR	Largest integer value that is not greater than x
TRUNC	Interger part of x
FRAC	Decimal part of x
STRLEN	String length

ABAP statement and Keyword(con't)

1. SELECT statements
2. SAP tables vs. Internal Tables
3. LOOP-ENDLOOP
4. WRITE statements
5. Comment in ABAP
6. Expressions and Operations in ABAP
7. Subroutines: FORMS, FUNCTION MODULE

ABAP statement and Keyword(con't)

SELECT statement

- to read table entries (records) from a table (database)
- the return code is stored in system field SY-SUBRC
    - 0: if one or more table entries were retrieved
    - 4: if no table entries were retrieved (table is empty/ no data match the criteria)

ABAP statement and Keyword(con't)

SELECT statement

- For selecting 1 or more records from a table:

```
SELECT * FROM <dbtab>
```

Additions

```
. . . WHERE  <condition>

. . . ORDER BY PRIMARY KEY

. . . ORDER BY  <f1>  <f2>  . . .  <fn>
```