Week 3 Unit 2: **Recent Open SQL Enhancements – Part 2**

SAP

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Recent Open SQL Enhancements – Part 2
Outline

Content

- Open SQL enhancements

  - SELECT list (cont.)

  - GROUP BY and HAVING clauses

  - JOIN statements

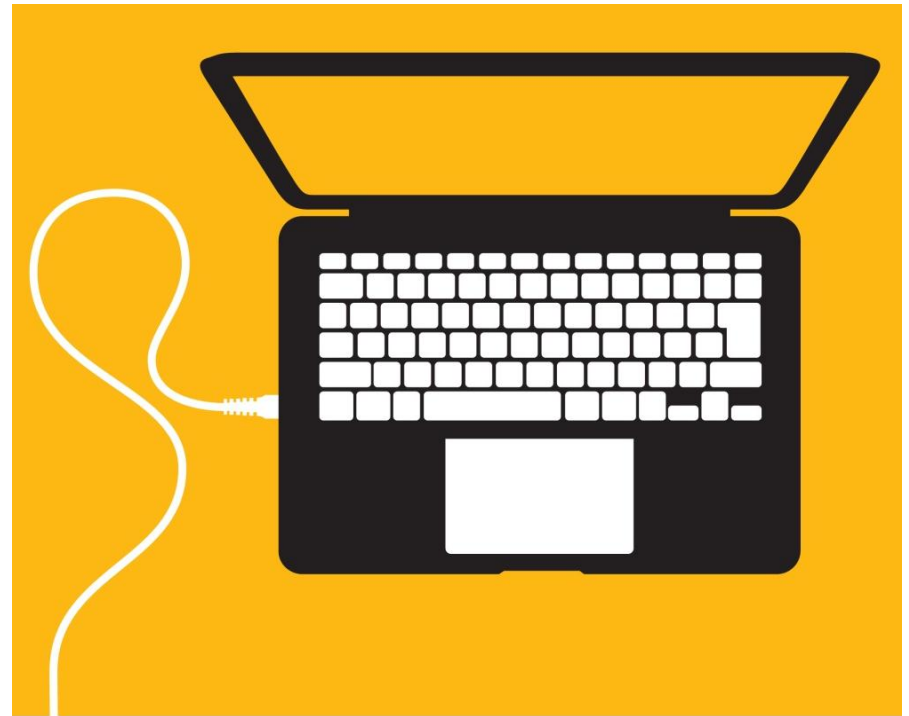 - Client handling

- More information

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Recent Open SQL Enhancements – Part 2
Open SQL: Demo

Open SQL enhancements

- SELECT list enhancements:
  - Conditional expressions
- Expressions in
  - GROUP BY clause
  - HAVING clause
- JOIN statements
- Client handling

Conditional Expressions

CASE Expression

```
"simple case
SELECT so_id,
        CASE delivery_status
          WHEN ' ' THEN 'OPEN'
          WHEN 'D' THEN 'DELIVERED'
          ELSE delivery_status
        END AS delivery_status_long
    FROM snwd_so
    INTO TABLE @DATA(lt_simple_case).

"searched case
SELECT so_id,
        CASE
          WHEN gross_amount > 1000
            THEN 'High volume sales order'
          ELSE ' '
        END AS volumn_order
    FROM snwd_so
    INTO TABLE @DATA(lt_searched_case).
```

COALESCE Expression

```
SELECT so_id,
        so~gross_amount
              AS so_amount,
        inv_head~gross_amount
              AS inv_amount,
        "potential invoice amount
        COALESCE( inv_head~gross_amount,
                  so~gross_amount )
              AS expected_amount
    FROM snwd_so AS so
    LEFT OUTER JOIN
        snwd_so_inv_head AS inv_head
      ON inv_head~so_guid = so~node_key
    INTO TABLE @DATA(lt_result).
```

Recent Open SQL Enhancements – Part 2
Expressions in GROUP BY & HAVING Clauses

GROUP BY Clause

```
SELECT bp_id,
       company_name,
       so~currency_code,
       SUM( so~gross_amount )
         AS total_amount,
       CASE
         WHEN so~gross_amount < 1000
           THEN 'X'
         ELSE ' '
       END AS low_volume_flag,
       COUNT( * ) AS cnt_orders
  FROM snwd_so AS so
  INNER JOIN snwd_bpa AS bpa
  ON bpa~node_key = so~buyer_guid
  INTO TABLE @DATA(lt_result)
  GROUP BY
    bp_id, company_name,
    so~currency_code,
    CASE
      WHEN so~gross_amount < 1000
        THEN 'X'
        ELSE ' '
      END
   ORDER BY company_name.
```

HAVING Clause

```
SELECT bp_id,
       company_name,
       so~currency_code,
       SUM( so~gross_amount )
        AS total_amount
  FROM snwd_so AS so
  INNER JOIN snwd_bpa AS bpa
  ON bpa~node_key = so~buyer_guid
  INTO TABLE @DATA(lt_result)
  WHERE so~delivery_status = ' '
  GROUP BY
    bp_id,
    company_name,
    so~currency_code
  HAVING SUM( so~gross_amount ) > 10000000.
```

i Additional Material

Enhancements

- Now available: **RIGHT OUTER JOIN**
- Enhanced **bracketing** in JOIN expressions
- New functionality in **ON** conditions of JOIN statements like:
  - **Necessary requirement** of a field of the right table in the ON condition is dropped
  - Operators like **BETWEEN** or "**>**" can be used for comparisons
  - Possibility to use **fields of the right table** in the **WHERE** clause of LEFT OUTER JOINs

- Restriction of **maximum number of tables** in JOINs has been increased to 50

```
SELECT
    so_id,
    bp_id,
    gross_amount
 FROM snwd_so AS so
 RIGHT OUTER JOIN snwd_bpa AS bpa
  ON so~buyer_guid = bpa~node_key
  AND so~gross_amount > 100000
 INTO TABLE @DATA(lt_result).
```

Automatic Client Handling

- Well known Open SQL client handling

- Client handling can be overruled with **USING CLIENT**

- Simplified/improved client handling in JOINs

```
SELECT
  bp_id,
  company_name,
  so~currency_code,
  so~gross_amount
FROM snwd_so AS so
INNER JOIN snwd_bpa AS bpa
  ON so~buyer_guid = bpa~node_key
  USING CLIENT '111'
INTO TABLE @DATA(lt_result).
```

Recent Open SQL Enhancements – Part 2
More Information

More information about recent Open SQL enhancements:

- Help Portal (http://help.sap.com/nw74): What's New – Release Notes for Support Package 05 & 08

- SCN blog: http://scn.sap.com/community/abap/blog/2014/02/06/abap-news-for-release-740-sp05

Recent Open SQL Enhancements – Part 2
What's Next?

Week 3 Unit 3
Core Data Services: What's in It for You?

Thank you

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