

**Macros**

# Macros

- A **macro** is a set of SQL statements which are stored and executed by calling the macro name.
- The definition of macros is stored in Data Dictionary. Users only need `EXEC` privilege to execute the macro.
- Users do not need separate privileges on the database objects used inside the macro.

# Macros

- Macro statements are executed as a single transaction:
  - If one of the SQL statements fails, then all the statements are rolled back.
  - Macros can accept parameters.
  - Macros can contain DDL statements, but that should be the *only* statement.

# Create Macros

```
CREATE MACRO <macroname> [(parameter1, parameter2,...)]  
(  
    <sql statements>  
);
```

# Example

```
CREATE MACRO Get_Emp AS  
(  
    SELECT  
        EmployeeNo,  
        FirstName,  
        LastName  
    FROM  
        employee  
    ORDER BY EmployeeNo;  
);
```

```
EXEC Get_Emp;
```

# Parameterized Macros

Macro parameters are referenced with `:Param;` .

```
CREATE MACRO Get_Emp_Salary(EmployeeNo INTEGER) AS
(
    SELECT
        EmployeeNo,
        NetPay
    FROM
        Salary
    WHERE EmployeeNo = :EmployeeNo;
);
```

```
EXEC Get_Emp_Salary(101);
```