



Master In SQL

By Fireblaze AI School

Index

- **Introduction to the Program**
- **Installation Of Oracle SQL**
- **Data Retrieving**
- **Restricting and Sorting Data**
- **Using Single-Row Functions to Customize Output**
- **Using Conversion Functions and Conditional Expressions**
- **Aggregated Data Using the Group Functions**
- **Displaying Data from Multiple Tables Using Joins**
- **Using Subqueries to Solve Queries**
- **Using the Set Operators**
- **Manipulating the Data**
- **Using DDL Statements to Create and Manage Tables**

Conversion Functions and Conditional Expressions

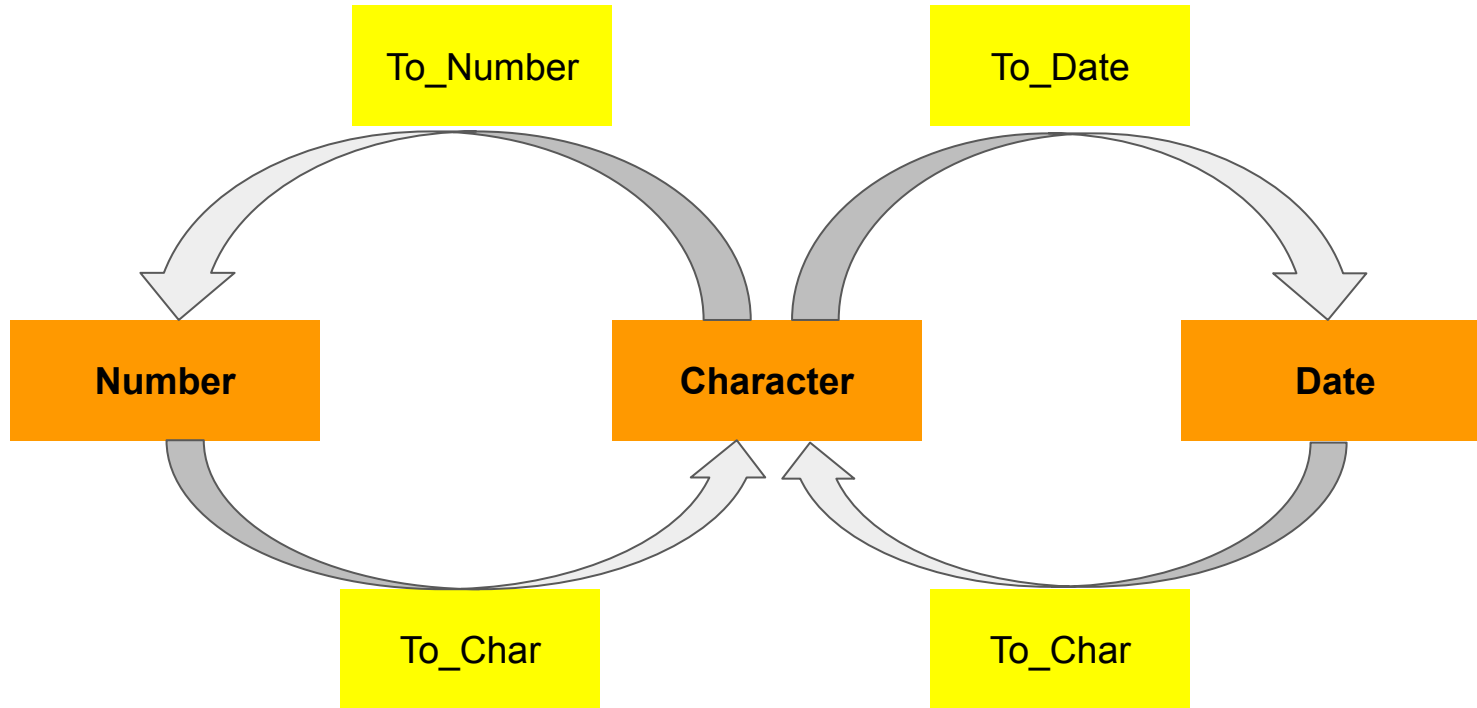
- Implicit and explicit data type conversion
- TO_CHAR, TO_DATE, TO_NUMBER functions
- Nesting functions
- General functions: – NVL – NVL2 – NULLIF – COALESCE
- Conditional expressions: – CASE – DECODE

Implicit Data Type Conversion

In expressions, the Oracle server can automatically convert the following:

From	To
VARCHAR2 or CHAR	NUMBER
VARCHAR2 or CHAR	DATE
NUMBER	VARCHAR2 or CHAR
DATE	VARCHAR2 or CHAR

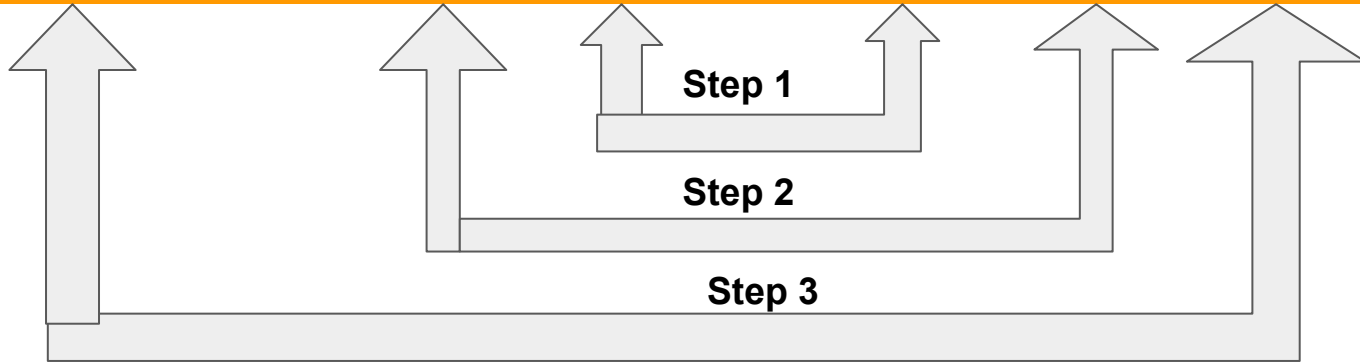
Explicit Data Type Conversion



Nesting Functions

- Single-row functions can be nested to any level.
- Nested functions are evaluated from the deepest level to the least deep level.

Function 3(Function 2(Function 1 (Col, Arg1) ,Arg2),Arg3)



General Function

The following functions work with any data type:

- NVL (expr1, expr2)
- NVL2 (expr1, expr2, expr3)
- NULLIF (expr1, expr2) COALESCE (expr1, expr2, ..., exprn)

General Function

Function	Description
NVL	Convert the null value to an actual value
NVL2	If expr1 is not null, NVL2 returns expr2. If expr1 is null, NVL2 returns expr3. The argument expr1 can have any data type.
NULLIF	Compares two expressions and returns null if they are equal; returns the first expression if they are not equal
COALESCE	Returns the first non-null expression in the expression list

Conditional Expressions

Provide the use of the IF-THEN-ELSE logic within a SQL statement.

- Use two methods:
- CASE expression
- DECODE function

Syntax:-

```
CASE expr WHEN comparison_expr1 THEN return_expr1 [WHEN comparison_expr2  
THEN return_expr2 WHEN comparison_exprn THEN return_exprn ELSE else_expr]  
END;
```

DECODE Function

- The DECODE function decodes an expression in a way similar to the IF-THEN-ELSE logic that is used in various languages.
- The DECODE function decodes expression after comparing it to each search value. If the expression is the same as search, result is returned.

Syntax:-

DECODE(col|expression, search1, result1 [, search2, result2,...] [, default])

Summary