



**Institución Universitaria**

*Acreditada en Alta Calidad*

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# DATABASE ADMINISTRATION ADVANCED

# AGENDA

- ④ How to read Oracle's diagrams
- ④ Oracle Datatypes
- ④ Practice

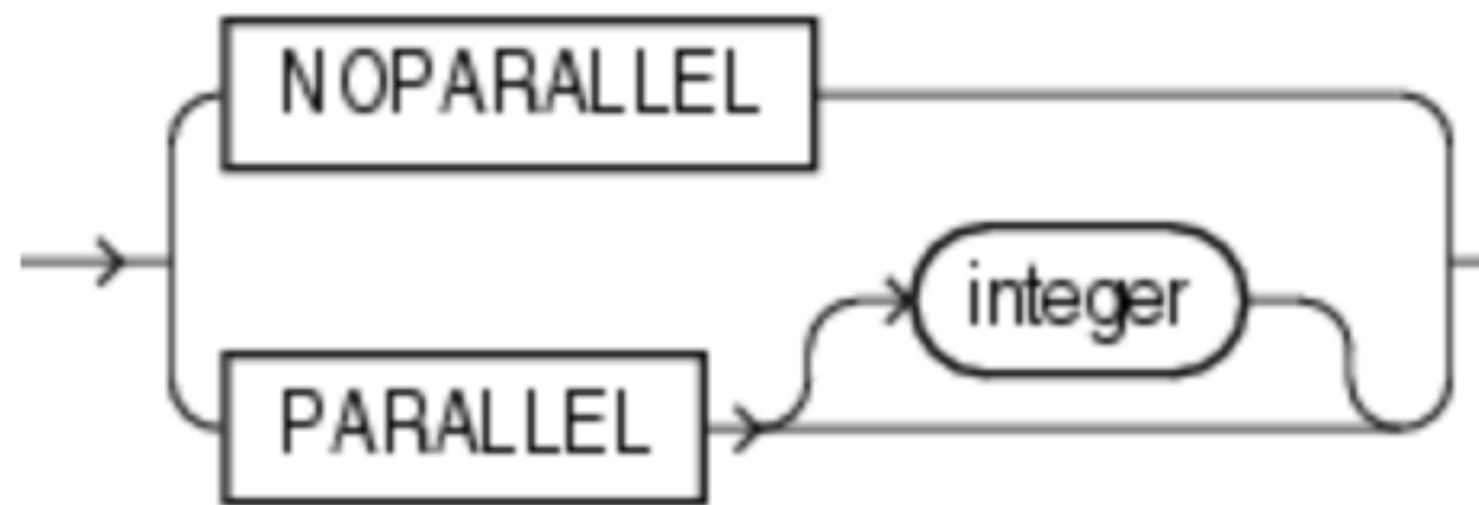
# How to read Oracle's diagrams

[https://docs.oracle.com/cd/B28359\\_01/server.111/b28286/ap\\_syntx001.htm#SQLRF55381](https://docs.oracle.com/cd/B28359_01/server.111/b28286/ap_syntx001.htm#SQLRF55381)

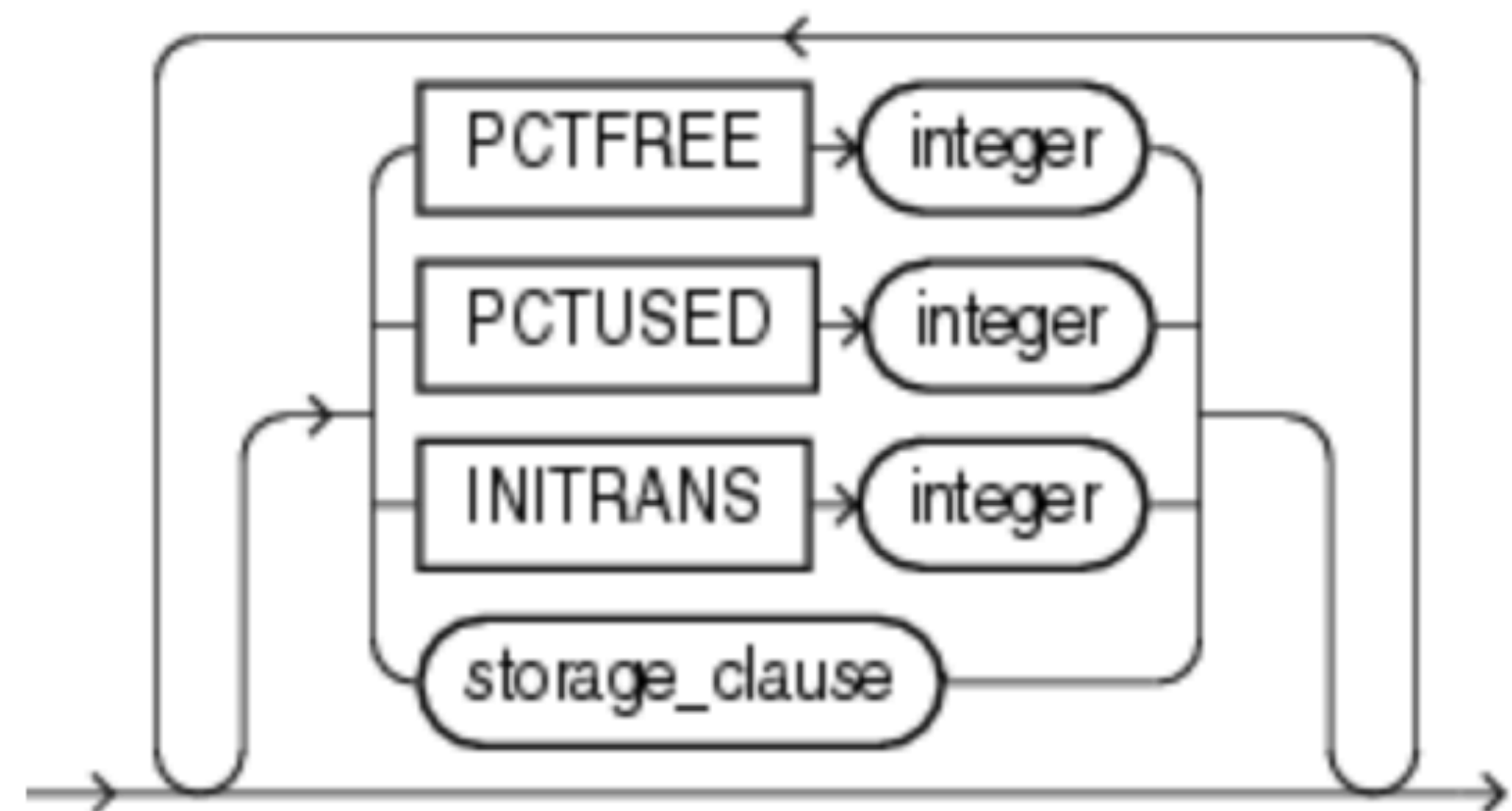
# Graphic Syntax Diagrams

- To read a diagram, trace it from left to right, in the direction shown by the arrows
- **UPPERCASE (Rectangle)** = Command or keyword. Mandatory as it is.
- **Lowercase (Oval)** = Parameter
- **Circles** = Variables for parameters, operators, delimiters and terminators
- If the diagram has more than one path, choose any path.

# Graphic Syntax Diagrams



Description of the illustration [parallel\\_clause.gif](#)

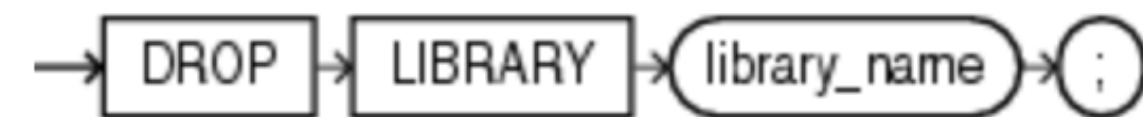


Description of the illustration [physical\\_attributes\\_clause.gif](#)

# Required keywords and parameters

A. Single required keywords and parameters appear on the main path.

**B. *library\_name*** is a required parameter.



[Description of the illustration drop\\_library.gif](#)

```
1 DROP LIBRARY hq_lib;
```

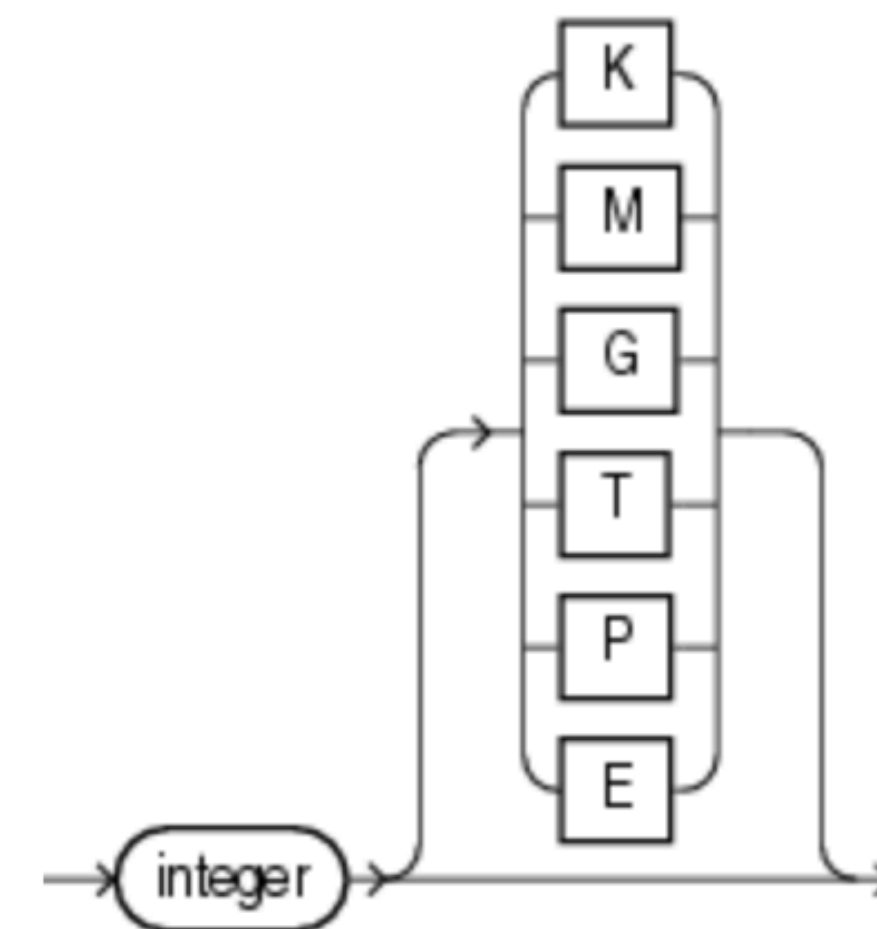
# Optional keywords and parameters

A. They appear in a list above the main path

***size\_clause::=***



Description of the illustration `deallocate_unused_clause.gif`



Description of the illustration `size_clause.gif`

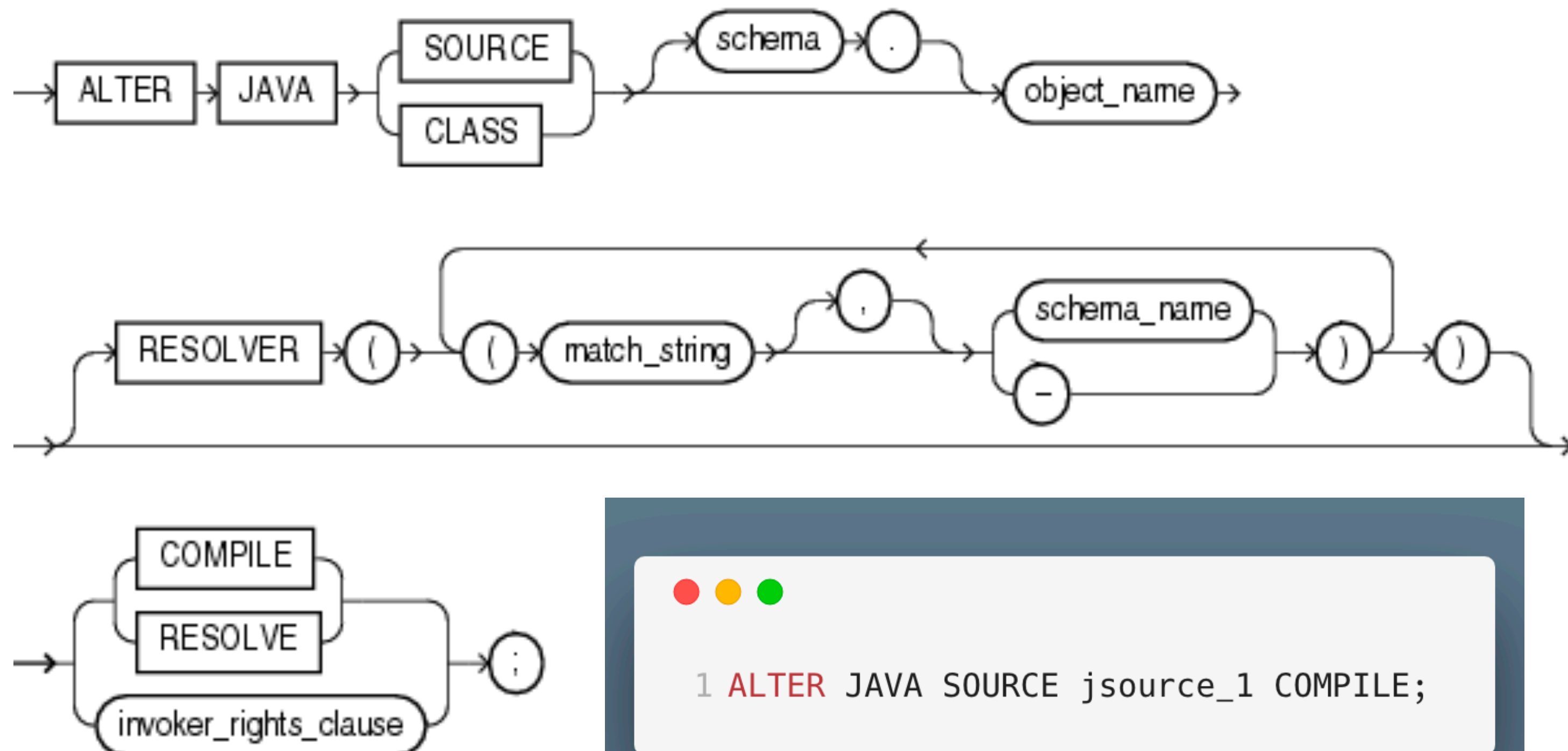
# Optional keywords and parameters



```
1 DEALLOCATE UNUSED;  
2 DEALLOCATE UNUSED KEEP 1000;  
3 DEALLOCATE UNUSED KEEP 10G;  
4 DEALLOCATE UNUSED 8T;
```



# Multipart diagrams



```
1 ALTER JAVA SOURCE jsource_1 COMPILE;
```

# Oracle datatypes

<https://www.techonthenet.com/oracle/datatypes.php>

# Character Datatypes

Data Type Syntax	Oracle 11g	Explanation
char(size)	Maximum size of 2000 bytes.	Where <b>size</b> is the number of characters to store. Fixed-length strings. Space padded.
nchar(size)	Maximum size of 2000 bytes.	Where <b>size</b> is the number of characters to store. Fixed-length NLS string Space padded.
nvarchar2(size)	Maximum size of 4000 bytes.	Where <b>size</b> is the number of characters to store. Variable-length NLS string.
varchar2(size)	Maximum size of 4000 bytes. Maximum size of 32KB in PLSQL.	Where <b>size</b> is the number of characters to store. Variable-length string.
long	Maximum size of 2GB.	Variable-length strings. (backward compatible)
raw	Maximum size of 2000 bytes.	Variable-length binary strings
long raw	Maximum size of 2GB.	Variable-length binary strings. (backward compatible)

# Numeric Datatypes

Data Type Syntax	Oracle 11g	Explanation
number(p,s)	Precision can range from 1 to 38. Scale can range from -84 to 127.	Where <b>p</b> is the precision and <b>s</b> is the scale.  For example, number(7,2) is a number that has 5 digits before the decimal and 2 digits after the decimal.
numeric(p,s)	Precision can range from 1 to 38.	Where <b>p</b> is the precision and <b>s</b> is the scale.  For example, numeric(7,2) is a number that has 5 digits before the decimal and 2 digits after the decimal.
float		
dec(p,s)	Precision can range from 1 to 38.	Where <b>p</b> is the precision and <b>s</b> is the scale.  For example, dec(3,1) is a number that has 2 digits before the decimal and 1 digit after the decimal.
decimal(p,s)	Precision can range from 1 to 38.	Where <b>p</b> is the precision and <b>s</b> is the scale.  For example, decimal(3,1) is a number that has 2 digits before the decimal and 1 digit after the decimal.
integer		
int		
smallint		
real		
double precision		

# Date/Time Datatypes

Data Type Syntax	Oracle 11g	Explanation
date	A date between Jan 1, 4712 BC and Dec 31, 9999 AD.	
timestamp ( <i>fractional seconds precision</i> )	<b><i>fractional seconds precision</i></b> must be a number between 0 and 9. (default is 6)	Includes year, month, day, hour, minute, and seconds.  For example: timestamp(6)
timestamp ( <i>fractional seconds precision</i> ) with time zone	<b><i>fractional seconds precision</i></b> must be a number between 0 and 9. (default is 6)	Includes year, month, day, hour, minute, and seconds; with a time zone displacement value.  For example: timestamp(5) with time zone
timestamp ( <i>fractional seconds precision</i> ) with local time zone	<b><i>fractional seconds precision</i></b> must be a number between 0 and 9. (default is 6)	Includes year, month, day, hour, minute, and seconds; with a time zone expressed as the session time zone. For example: timestamp(4) with local time zone
interval year ( <i>year precision</i> ) to month	<b><i>year precision</i></b> is the number of digits in the year. (default is 2)	Time period stored in years and months.  For example: interval year(4) to month
interval day ( <i>day precision</i> ) to second ( <i>fractional seconds precision</i> )	<b><i>day precision</i></b> must be a number between 0 and 9. (default is 2)  <b><i>fractional seconds precision</i></b> must be a number between 0 and 9. (default is 6)	Time period stored in days, hours, minutes, and seconds.  For example: interval day(2) to second(6)

**Thank you!**