

Database Programming with SQL 13-2: Using Data Types

Practice Activities

# Objectives

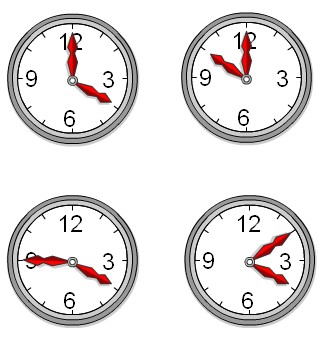
* Create a table using TIMESTAMP and TIMESTAMP WITH TIME ZONE column data types
* Create a table using INTERVAL YEAR TO MONTH and INTERVAL DAY TO SECOND column data types
* Give examples of organizations and personal situations where it is important to know to which time zone a date-time value refers
* List and provide an example of each of the number, date, and character data types

# Vocabulary

Identify the vocabulary word for each definition below.

|  |  |
| --- | --- |
| **INTERVAL YEAR**[(x)] **TO MONTH (x по умолчанию 2)** | Allows time to be stored as an interval of years and months |
| **TIMESTAMP** [(точность дробной части)] **WITH LOCAL TIME ZONE** | When a column is selected in a SQL statement the time is automatically converted to the user’s timezone |
| **BLOB** | Binary large object data up to 4 gigabytes |
| **TIMESTAMP** [(точность дробной части)] **WITH TIME ZONE** | Stores a time zone value as a displacement from Universal Coordinated Time or UCT |
| **INTERVAL DAY**[(x)] **TO SECOND**[(y)] x -по умолчанию 2, y – по умолчанию 6 | Allows time to be stored as an interval of days to hours, minutes, and seconds |
| **CLOB** | Character data up to 4 gigabytes |
| **TIMESTAMP** [(дробная часть точность)] | Allows the time to be stored as a date with fractional seconds |

# Try It / Solve It



**LONDON**

**NEW YORK**

t

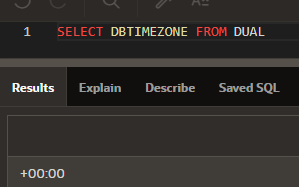
1. Using the examples provided in the slides, create each

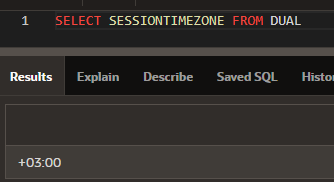
h of the three time-zone tables.

ions

e-time

* 1. TIMESTAMP WITH LOCAL TIME ZONE





CREATE TABLE time\_ex3 (first\_column TIMESTAMP WITH TIME ZONE,

second\_column TIMESTAMP WITH LOCAL TIME ZONE);

INSERT INTO time\_ex3

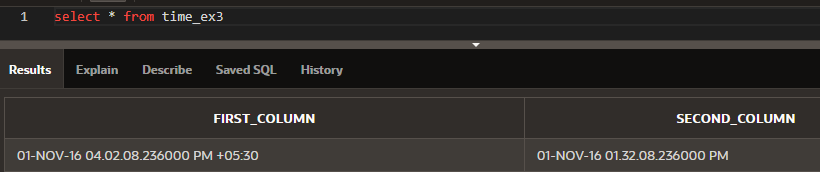
(first\_column,

second\_column)

VALUES

(TO\_TIMESTAMP\_TZ('2016-11-0116:02:08.236+05:30','YYYY-MM-DDHH24:MI:SS.FFTZH:TZM'),

TO\_TIMESTAMP\_TZ('2016-11-0116:02:08.236+05:30','YYYY-MM-DDHH24:MI:SS.FFTZH:TZM'));



* 1. INTERVAL YEAR TO MONTH

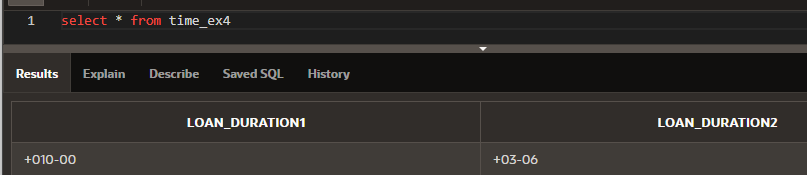
CREATE TABLE time\_ex4

(loan\_duration1 INTERVAL YEAR(3) TO MONTH,

loan\_duration2 INTERVAL YEAR(2) TO MONTH);

INSERT INTO time\_ex4 (loan\_duration1, loan\_duration2 )

VALUES( INTERVAL '120' MONTH(3), INTERVAL '3-6' YEAR TO MONTH);



* 1. INTERVAL DAY TO SECOND

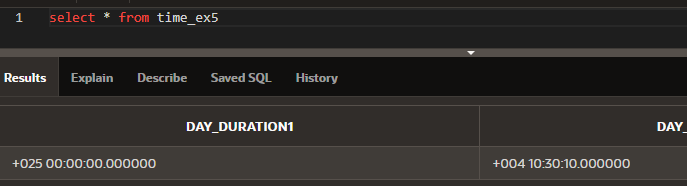
CREATE TABLE time\_ex5

(day\_duration1 INTERVAL DAY(3) TO SECOND,

day\_duration2 INTERVAL DAY(3) TO SECOND);

INSERT INTO time\_ex5 (day\_duration1, day\_duration2 )

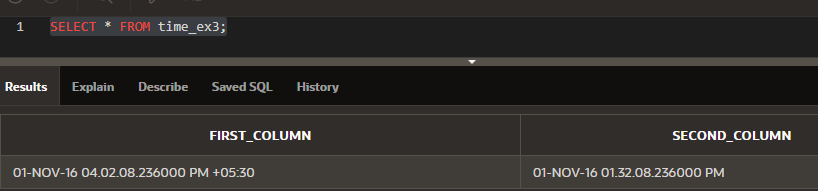
VALUES( INTERVAL '25' DAY(2), INTERVAL '4 10:30:10' DAY TO SECOND);

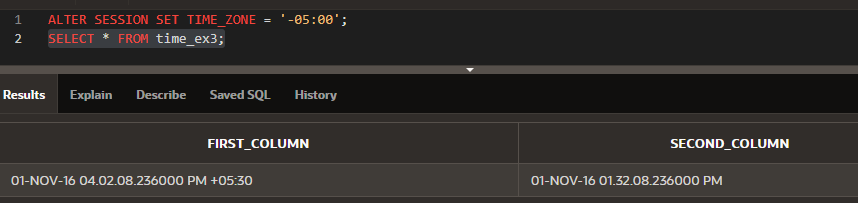


1. Execute a SELECT \* from each table

to verify your input.

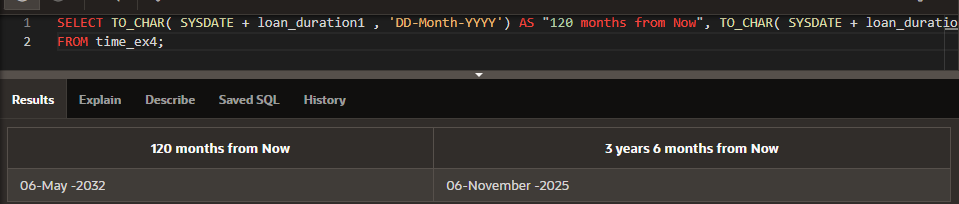
SELECT \* FROM time\_ex3;





SELECT TO\_CHAR( SYSDATE + loan\_duration1 , 'DD-Month-YYYY') AS "120 months from Now", TO\_CHAR( SYSDATE + loan\_duration2 , 'DD-Month-YYYY') AS "3 years 6 months from Now"

FROM time\_ex4;



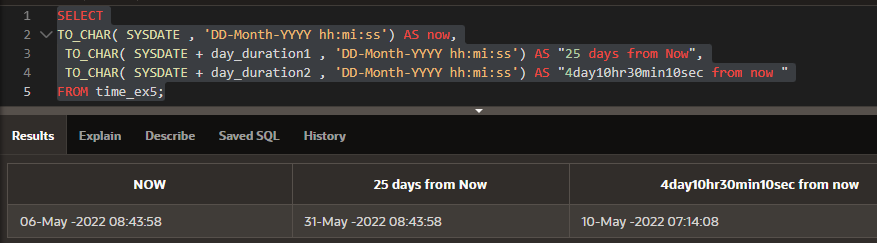
SELECT

TO\_CHAR( SYSDATE , 'DD-Month-YYYY hh:mi:ss') AS now,

TO\_CHAR( SYSDATE + day\_duration1 , 'DD-Month-YYYY hh:mi:ss') AS "25 days from Now",

TO\_CHAR( SYSDATE + day\_duration2 , 'DD-Month-YYYY hh:mi:ss') AS "4day10hr30min10sec from now "

FROM time\_ex5;



1. Give 3 examples of organizations and personal situat where it is important to know to which time zone a da value refers.

Любые события, которые планируются в текущей локали, например:

- встреча коллег

- учет времени прихода на работу

- планирование отпусков

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