

## Database Programming with PL/SQL 2-3: Recognizing Data Types

### Practice Activities

#### Vocabulary

Identify the vocabulary word for each definition below:

<b>NCLOB</b>	Store large blocks of single-byte or fixed width multi-byte NCHAR data in the database.
<b>LOB</b>	Hold values, called locators, that specify the location of large objects (such as graphic images) that are stored out of line.
<b>SCALAR</b>	Hold a single value with no internal components.
<b>BLOB</b>	Store large unstructured or structured binary objects.
<b>COMPOSITE</b>	Contain internal elements that are either scalar (record) or composite (record and table)
<b>BFILE</b>	Store large binary files outside of the database.
<b>REFERENCE</b>	Hold values, called pointers, that point to a storage location.
<b>OBJECT</b>	A schema object with a name, attributes, and methods.
<b>CLOB</b>	Store large blocks of character data in the database.

#### Try It / Solve It

1. In your own words, describe what a data type is and explain why it is important. 2

**Los tipos de datos son categorías en las que tienes escoger el tipo de dato adecuado a lo que quieres almacenar. Son importantes porque sin ellos sería un verdadero problema guardar información y después tener que convertirla de nuevo al dato que necesites.**

2. Identify the three data type categories covered in this course.

**COMPOSITE, REFERENCE, SCALAR**

3. Identify three data types covered in the *Database Programming with SQL* course.

**NUMBER, VARCHAR2, DATE**

4. What data type can be used in PL/SQL, but can't be used to define a table column?

**BOOLEAN**

5. Which data type indicates a large data object that is stored outside of the database?

**BFILE**

6. Identify the data type category (LOB, Scalar, or Composite) for each data type. Each category may be used more than once.

Data Type	Data Type Category
CLOB	<b>LOB</b>
VARCHAR2	<b>SCALAR</b>
BLOB	<b>LOB</b>
NUMBER	<b>SCALAR</b>
BFILE	<b>LOB</b>
TIMESTAMP	<b>SCALAR</b>
NCLOB	<b>LOB</b>

RECORD	<b>COMPOSITE</b>
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3

PLS_INTEGER	<b>SCALAR</b>
LONG	<b>SCALAR</b>
TABLE	<b>COMPOSITE</b>
BOOLEAN	<b>SCALAR</b>

7. Enter the data type category and the data type for each value. The first one has been done for you.

Value		Data Type Category	Data Type
'Switzerland'		<b>Scalar</b>	<b>VARCHAR2</b>
Text of a resume		<b>LOB</b>	<b>CLOB</b>
100.20		<b>SCALAR</b>	<b>NUMBER</b>
A picture		<b>LOB</b>	<b>BLOB</b>
1053		<b>SCALAR</b>	<b>NUMBER</b>
11-Jun-2016		<b>SCALAR</b>	<b>DATE</b>
'Computer science is the science of the 21 <sup>st</sup> century.'		<b>SCALAR</b>	<b>VARCHAR2</b>
Index	Last_name	<b>COMPOSITE</b>	<b>TABLE</b>
1	'Newman'		
2	'Raman'		
3	'Han'		
A movie		<b>LOB</b>	<b>BFILE</b>
A sound byte		<b>LOB</b>	<b>BFILE</b>
FALSE		<b>SCALAR</b>	<b>BOOLEAN</b>

