Data Dictionary Exercise

4127/5127

Database –Advanced Topics

Selected Data Dictionary Tables

TABLE: user_tab_columns
TABLE_NAME NOT NULL VARCHAR2(30)
COLUMN_NAME NOT NULL VARCHAR2(30)
DATA_TYPE VARCHAR2(106)
DATA_TYPE_MOD VARCHAR2(3)
DATA_TYPE_OWNER VARCHAR2(30)
DATA_LENGTH NOT NULL NUMBER
DATA_PRECISION NUMBER
DATA_SCALE NUMBER
NULLABLE VARCHAR2(1)
COLUMN_ID NUMBER
DEFAULT_LENGTH NUMBER
DATA_DEFAULT LONG()
NUM_DISTINCT NUMBER

TABLE: user_tab_comments
TABLE_NAME NOT NULL VARCHAR2(30)
TABLE_TYPE VARCHAR2(11)
COMMENTS VARCHAR2(4000)

TABLE: user_cons_columns
OWNER NOT NULL VARCHAR2(30)
CONSTRAINT_NAME NOT NULL VARCHAR2(30)
TABLE_NAME NOT NULL VARCHAR2(30)
COLUMN_NAME VARCHAR2(4000)
POSITION NUMBER

TABLE: user_col_comments
TABLE_NAME NOT NULL VARCHAR2(30)
COLUMN_NAME NOT NULL VARCHAR2(30)
COMMENTS VARCHAR2(4000)

TABLE: user_constraints
OWNER NOT NULL VARCHAR2(30)
CONSTRAINT_NAME NOT NULL VARCHAR2(30)
CONSTRAINT_TYPE VARCHAR2(1)
TABLE_NAME NOT NULL VARCHAR2(30)
SEARCH_CONDITION LONG()
R_OWNER VARCHAR2(30)
R_CONSTRAINT_NAME VARCHAR2(30)
DELETE_RULE VARCHAR2(9)
STATUS VARCHAR2(8)
DEFERRABLE VARCHAR2(14)
DEFERRED VARCHAR2(9)
VALIDATED VARCHAR2(13)

Dashed tables contain selected columns.

Sample User_Cons_Columns data

select OWNER, CONSTRAINT_NAME, TABLE_NAME, COLUMN_NAME from User_Cons_columns;

OWNER	CONSTRAINT_NAME	TABLE_NAME	COLUMN_NAME
HEALTHINFO	SYS_C00217739	PROVIDER	PROVIDERID
HEALTHINFO	SYS_C00217740	PATIENTPROVIDER	PATIENTID
HEALTHINFO	SYS_C00217740	PATIENTPROVIDER	PROVIDERID
HEALTHINFO	SYS_C00217742	PATIENTPHONE	PATIENTID
HEALTHINFO	SYS_C00217742	PATIENTPHONE	PATIENTPHONETYPE
HEALTHINFO	SYS_C00217741	PATIENTADDRESS	PATIENTID
HEALTHINFO	SYS_C00217741	PATIENTADDRESS	PATIENTADDRESSTYPE
HEALTHINFO	SYS_C00217738	PATIENT	PATIENTID
HEALTHINFO	SYS_C00262854	MSWORD_REPORTS	ID
HEALTHINFO	SYS_C00262852	MSWORD_ML_DATA	ID
HEALTHINFO	SYS_C00262853	MSWORD_ML_DATA	REPORT_ID

Sample User_constraints data

select OWNER, CONSTRAINT_NAME, CONSTRAINT_TYPE, SEARCH_CONDITION
from User_constraints;

OWNER	CONSTR_NAME	TYPE	SEARCH_CONDITION
HEALTHINFO	SYS_C00217745	U	
HEALTHINFO	SYS_C00217744	P	
HEALTHINFO	SYS_C00217743	P	
HEALTHINFO	SYS_C00217742	P	
HEALTHINFO	SYS_C00217741	P	
HEALTHINFO	SYS_C00217740	P	
HEALTHINFO	SYS_C00217739	P	
HEALTHINFO	SYS_C00217738	P	
HEALTHINFO	SYS_C00262288	C	"DESIGN_OVID" IS NOT NULL
HEALTHINFO	SYS_C00262287	C	"DATAELEMENT_NAME" IS NOT NULL
HEALTHINFO	SYS_C00262286	C	"CONTAINER_NAME" IS NOT NULL
HEALTHINFO	SYS_C00262285	C	"CONTAINER_OVID" IS NOT NULL
HEALTHINFO	SYS_C00262284	C	"CONTAINER_ID" IS NOT NULL
HEALTHINFO	SYS_C00262283	C	"VALUE" IS NOT NULL

Constraint Types & Codes

Type Code	Type Description	Acts On Level
C	Check on a table	Column
O	Read Only on a view	Object
P	Primary Key	Object
R	Referential AKA Foreign Key	Column
U	Unique Key	Column
V	Check Option on a view	Object

Source: http://psoug.org/reference/constraints.html

Case Function, handy for decoding constraint type
A flexible method of grouping data into even or unevenly sized buckets.
Very similar to DECODE
Syntax:

```
CASE    WHEN <cond1> THEN <Value1>
        WHEN <cond2> THEN <Value2>
        [ELSE Value n ] END
```

Data Dictionary and Constraints Exercise

Create a query to fill in this table:

Table Name:	Field Name:	Field Type:	Field size:	Key Type:	Constraints:	Description:

Use the existing tables (staff, branch,etc) and add constraints (e.g. primary key, unique, foreign key, check, not null, unique) to test your results.