DATA BASE DICTIONARY
(Cap. 5)

1) Structura dictionarului de date:

```
SQL> desc dictionary
 Name                             Null?   Type
 ---------------------------------------- -------- ---------------------------
 TABLE_NAME                               VARCHAR2(30)
 COMMENTS                                 VARCHAR2(4000)

SQL> select table_name from dictionary where table_name like 'USER%';

TABLE_NAME
------------------------------
USER_INDEXES
USER_IND_COLUMNS
USER_IND_EXPRESSIONS
USER_JOIN_IND_COLUMNS
USER_OBJECTS
USER_PROCEDURES
USER_STORED_SETTINGS
USER_PLSQL_OBJECT_SETTINGS
USER_ARGUMENTS
USER_RESUMABLE
USER_ROLE_PRIVS
USER_SYS_PRIVS
USER_SEQUENCES
USER_SYNONYMS
USER_TABLES
USER_OBJECT_TABLES
USER_ALL_TABLES
USER_TAB_COLS
USER_TAB_COLUMNS
USER_NESTED_TABLE_COLS
USER_TAB_COL_STATISTICS
USER_TAB_HISTOGRAMS
USER_TAB_COMMENTS
USER_TAB_PRIVS
USER_TAB_PRIVS_MADE
USER_TAB_PRIVS_RECD
USER_USERS
USER_PROXIES
USER_VIEWS
USER_CONSTRAINTS
```

2) Toate tabelele din userul crt.

```
SQL> desc user_tables
 Name                            Null?    Type
 ---------------------------------------- -------- ----------------------------
 TABLE_NAME                      NOT NULL VARCHAR2(30)
 TABLESPACE_NAME                          VARCHAR2(30)
 CLUSTER_NAME                             VARCHAR2(30)
 IOT_NAME                                 VARCHAR2(30)
 PCT_FREE                                 NUMBER
 PCT_USED                                 NUMBER
 INI_TRANS                                NUMBER
 MAX_TRANS                                NUMBER
 INITIAL_EXTENT                           NUMBER
 NEXT_EXTENT                              NUMBER
 MIN_EXTENTS                              NUMBER
 MAX_EXTENTS                              NUMBER
 PCT_INCREASE                             NUMBER
 FREELISTS                                NUMBER
 FREELIST_GROUPS                          NUMBER
 LOGGING                                  VARCHAR2(3)
 BACKED_UP                                VARCHAR2(1)
 NUM_ROWS                                 NUMBER
 BLOCKS                                   NUMBER
 EMPTY_BLOCKS                             NUMBER
 AVG_SPACE                                NUMBER
 CHAIN_CNT                                NUMBER
 AVG_ROW_LEN                              NUMBER
 AVG_SPACE_FREELIST_BLOCKS                NUMBER
 NUM_FREELIST_BLOCKS                      NUMBER
 DEGREE                                   VARCHAR2(10)
 INSTANCES                                VARCHAR2(10)
 CACHE                                    VARCHAR2(5)
 TABLE_LOCK                               VARCHAR2(8)
 SAMPLE_SIZE                              NUMBER
 LAST_ANALYZED                            DATE
 PARTITIONED                              VARCHAR2(3)
 IOT_TYPE                                 VARCHAR2(12)
 TEMPORARY                                VARCHAR2(1)
 SECONDARY                                VARCHAR2(1)
 NESTED                                   VARCHAR2(3)
 BUFFER_POOL                              VARCHAR2(7)
 ROW_MOVEMENT                             VARCHAR2(8)
 GLOBAL_STATS                             VARCHAR2(3)
 USER_STATS                               VARCHAR2(3)
 DURATION                                 VARCHAR2(15)
```

```
SKIP_CORRUPT                        VARCHAR2(8)
MONITORING                          VARCHAR2(3)
CLUSTER_OWNER                       VARCHAR2(30)
DEPENDENCIES                        VARCHAR2(8)
```

SQL> select table_name from user_tables;

```
TABLE_NAME
------------------------------
BONUS
DEPT
EMP
SALGRADE
```

    3) Vizualizare obiectelor create de un user

```
SQL> desc user_objects
 Name                                    Null?    Type
 --------------------------------------- -------- ---------------------------
 OBJECT_NAME                                      VARCHAR2(128)
 SUBOBJECT_NAME                                   VARCHAR2(30)
 OBJECT_ID                                        NUMBER
 DATA_OBJECT_ID                                   NUMBER
 OBJECT_TYPE                                      VARCHAR2(18)
 CREATED                                          DATE
 LAST_DDL_TIME                                    DATE
 TIMESTAMP                                        VARCHAR2(19)
 STATUS                                           VARCHAR2(7)
 TEMPORARY                                        VARCHAR2(1)
 GENERATED                                        VARCHAR2(1)
 SECONDARY                                        VARCHAR2(1)
```

SQL> select object_name from user_objects;

```
OBJECT_NAME
--------------------------------------------------------------------------------
BONUS
DEPT
EMP
SALGRADE
```

    4) Adaugarea unei constrangeri pe o tabela

SQL> alter table dept add constraint deptno_pk primary key (deptno);

Table altered.

SQL> alter table emp add constraint emp_fk foreign key (deptno) references dept(deptno);

Table altered.

SQL> select object_name from user_objects;

OBJECT_NAME

BONUS
DEPT
DEPTNO_PK
EMP
SALGRADE

    5) Vizualizare toate constrangerile aferente userului curent

SQL> desc user_constraints
```
 Name                                      Null?    Type
 ----------------------------------------------------------------------------------------------------
 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)
 GENERATED                                          VARCHAR2(14)
 BAD                                                VARCHAR2(3)
 RELY                                               VARCHAR2(4)
 LAST_CHANGE                                        DATE
 INDEX_OWNER                                        VARCHAR2(30)
 INDEX_NAME                                         VARCHAR2(30)
 INVALID                                            VARCHAR2(7)
 VIEW_RELATED                                       VARCHAR2(14)
```

SQL> select owner,constraint_name,constraint_type, table_name from user_constraints;

```
OWNER                          CONSTRAINT_NAME                C TABLE_NAME
------------------------------ ------------------------------ - ------------------------------
UBD1                           DEPTNO_PK                      P DEPT
UBD1                           EMP_FK                         R EMP
```

6) Vizualizare structura tabelara

```
SQL> desc user_tab_columns
 Name                                                      Null?    Type
 ----------------------------------------------------------- -------  -------------
 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
 LOW_VALUE                                                          RAW(32)
 HIGH_VALUE                                                         RAW(32)
 DENSITY                                                            NUMBER
 NUM_NULLS                                                          NUMBER
 NUM_BUCKETS                                                        NUMBER
 LAST_ANALYZED                                                      DATE
 SAMPLE_SIZE                                                        NUMBER
 CHARACTER_SET_NAME                                                 VARCHAR2(44)
 CHAR_COL_DECL_LENGTH                                               NUMBER
 GLOBAL_STATS                                                       VARCHAR2(3)
 USER_STATS                                                         VARCHAR2(3)
 AVG_COL_LEN                                                        NUMBER
 CHAR_LENGTH                                                        NUMBER
 CHAR_USED                                                          VARCHAR2(1)
 V80_FMT_IMAGE                                                      VARCHAR2(3)
 DATA_UPGRADED                                                      VARCHAR2(3)
```

```
SQL> select table_name,column_name,data_type from user_tab_columns where
table_name='EMP';

TABLE_NAME       COLUMN_NAME             DATA_TYPE
----------------------------- ----------------------------- -------------------------------
EMP              EMPNO              NUMBER
EMP              ENAME              VARCHAR2
EMP              JOB                VARCHAR2
EMP              MGR                NUMBER
EMP              HIREDATE            DATE
EMP              SAL                NUMBER
EMP              COMM               NUMBER
```

EMP	DEPTNO	NUMBER

7) Toate obiectele create de alti useri la care are acces userul crt.

SQL> select table_name from dictionary where table_name like 'ALL%';

```
TABLE_NAME
------------------------------
ALL_XML_SCHEMAS
ALL_XML_SCHEMAS2
ALL_CATALOG
ALL_CLUSTERS
ALL_COL_COMMENTS
ALL_COL_PRIVS
ALL_COL_PRIVS_MADE
ALL_COL_PRIVS_RECD
ALL_ENCRYPTED_COLUMNS
ALL_DB_LINKS
ALL_INDEXES
ALL_IND_COLUMNS
ALL_IND_EXPRESSIONS
ALL_JOIN_IND_COLUMNS
ALL_OBJECTS
ALL_PROCEDURES
ALL_ERRORS
```

8) Vizualizare obiecte pentru toti userii

SQL> desc all_objects

```
Name                                      Null?    Type
------------------------------------------------------------------------------------------------
OWNER                                     NOT NULL VARCHAR2(30)
OBJECT_NAME                               NOT NULL VARCHAR2(30)
SUBOBJECT_NAME                                     VARCHAR2(30)
OBJECT_ID                                 NOT NULL NUMBER
DATA_OBJECT_ID                                     NUMBER
OBJECT_TYPE                                        VARCHAR2(18)
CREATED                                   NOT NULL DATE
LAST_DDL_TIME                             NOT NULL DATE
TIMESTAMP                                          VARCHAR2(19)
STATUS                                             VARCHAR2(7)
TEMPORARY                                          VARCHAR2(1)
GENERATED                                          VARCHAR2(1)
SECONDARY                                          VARCHAR2(1)
```

SQL> select owner,object_name,object_type from all_objects where owner='SCOTT';

```
OWNER              OBJECT_NAME           OBJECT_TYPE
------------------------------ ------------------------------ ------------------
SCOTT              BONUS              TABLE
SCOTT              DEPT               TABLE
SCOTT              EMP                TABLE
SCOTT              PK_DEPT            INDEX
SCOTT              PK_EMP             INDEX
SCOTT              SALGRADE           TABLE
```

9) Vizualizare toate obiectele bazei de date

SQL> select table_name from dictionary where table_name like 'DBA%';

10) Vizualizare informatii despre userii creati pe baza de date

```
SQL> desc dba_users
 Name                                                   Null?    Type
 --------------------------------------------------------------------------------------------
 USERNAME                                               NOT NULL VARCHAR2(30)
 USER_ID                                                NOT NULL NUMBER
 PASSWORD                                                        VARCHAR2(30)
 ACCOUNT_STATUS                                         NOT NULL VARCHAR2(32)
 LOCK_DATE                                                       DATE
 EXPIRY_DATE                                                     DATE
 DEFAULT_TABLESPACE                                     NOT NULL VARCHAR2(30)
 TEMPORARY_TABLESPACE                                   NOT NULL VARCHAR2(30)
 CREATED                                                NOT NULL DATE
 PROFILE                                                NOT NULL VARCHAR2(30)
 INITIAL_RSRC_CONSUMER_GROUP                                     VARCHAR2(30)
 EXTERNAL_NAME                                                   VARCHAR2(4000)
```

SQL> select username,password from dba_users;

```
USERNAME              PASSWORD
------------------------------ ------------------------------
SYS               C25502B5BB0A298F
SYSTEM            13107DAA798B5279
STUD2             8559EA3BEAC5C774
STUD3             449984BB0BA7005B
UBD1              6CB27176BF298E4B
STUD1             A9F4036978CEC351
SCOTT             F894844C34402B67
UBD2              E8BEF81B3D8D339C
UBD3              D02B9B6DE306737B
DBSNMP            E066D214D5421CCC
OUTLN             4A3BA55E08595C81
```

```
WMSYS            7C9BA362F8314299
ORDSYS           7EFA02EC7EA6B86F
HR               6399F3B38EDF3288
MDSYS            72979A94BAD2AF80
CTXSYS           71E687F036AD56E5
QS_ES            E6A6FA4BB042E3C2
QS_WS            24ACF617DD7D8F2F
QS               8B09C6075BDF2DC4
QS_ADM           991CDDAD5C5C32CA
SH               9793B3777CD3BD1A
PM               72E382A52E89575A
OE               9C30855E7E0CB02D
RMAN             E7B5D92911C831E1
QS_CS            91A00922D8C0F146
QS_CB            CF9CFACF5AE24964
QS_CBADM         7C632AFB71F8D305
QS_OS            FF09F3EB14AE5C26
XDB              88D8364765FCE6AF
WKSYS            69ED49EE1851900D
WKPROXY          B97545C4DD2ABE54
ODM              C252E8FA117AF049
ODM_MTR          A7A32CD03D3CE8D5
OLAPSYS          3FB8EF9DB538647C

36 rows selected.
```

11) Vizualizare informatii despre tablespace-uri create pe baza de date

```
SQL> desc dba_tablespaces
 Name                                      Null?     Type
 ----------------------------------------- --------  --------------
 TABLESPACE_NAME                           NOT NULL VARCHAR2(30)
 BLOCK_SIZE                                NOT NULL NUMBER
 INITIAL_EXTENT                                     NUMBER
 NEXT_EXTENT                                        NUMBER
 MIN_EXTENTS                               NOT NULL NUMBER
 MAX_EXTENTS                                        NUMBER
 PCT_INCREASE                                       NUMBER
 MIN_EXTLEN                                         NUMBER
 STATUS                                             VARCHAR2(9)
 CONTENTS                                           VARCHAR2(9)
 LOGGING                                            VARCHAR2(9)
 FORCE_LOGGING                                      VARCHAR2(3)
 EXTENT_MANAGEMENT                                  VARCHAR2(10)
 ALLOCATION_TYPE                                    VARCHAR2(9)
 PLUGGED_IN                                         VARCHAR2(3)
```

```
SEGMENT_SPACE_MANAGEMENT                    VARCHAR2(6)
DEF_TAB_COMPRESSION                  VARCHAR2(8)
RETENTION                            VARCHAR2(11)
BIGFILE                              VARCHAR2(3)


SQL> select tablespace_name,block_size,max_extents,status from dba_tablespaces;

TABLESPACE_NAME      BLOCK_SIZE MAX_EXTENTS    STATUS
------------------------------ ---------- ----------- ---------
SYSTEM                  8192    2147483645     ONLINE
UNDOTBS1                8192    2147483645     ONLINE
SYSAUX                  8192    2147483645     ONLINE
TEMP                    8192                   ONLINE
USERS                   8192    2147483645     ONLINE
EXAMPLE                 8192    2147483645     ONLINE
TOP_DATA                8192    2147483645     ONLINE
TOP_TEMP                8192                   ONLINE

8 rows selected.
```

   12) Vizualizare informatii despre indecsi

```
SQL> desc dba_indexes
 Name                                      Null?            Type
 ----------------------------------------- --------      --------------------
 OWNER                                     NOT NULL   VARCHAR2(30)
 INDEX_NAME                                NOT NULL   VARCHAR2(30)
 INDEX_TYPE                                           VARCHAR2(27)
 TABLE_OWNER                               NOT NULL   VARCHAR2(30)
 TABLE_NAME                                NOT NULL   VARCHAR2(30)
 TABLE_TYPE                                           VARCHAR2(11)
 UNIQUENESS                                           VARCHAR2(9)
 COMPRESSION                                          VARCHAR2(8)
 PREFIX_LENGTH                                        NUMBER
 TABLESPACE_NAME                                      VARCHAR2(30)
 INI_TRANS                                            NUMBER
 MAX_TRANS                                            NUMBER
 INITIAL_EXTENT                                       NUMBER
 NEXT_EXTENT                                          NUMBER
 MIN_EXTENTS                                          NUMBER
 MAX_EXTENTS                                          NUMBER
 PCT_INCREASE                                         NUMBER
 PCT_THRESHOLD                                        NUMBER
 INCLUDE_COLUMN                                       NUMBER
 FREELISTS                                            NUMBER
 FREELIST_GROUPS                                      NUMBER
```

```
PCT_FREE                        NUMBER
LOGGING                         VARCHAR2(3)
BLEVEL                          NUMBER
LEAF_BLOCKS                     NUMBER
DISTINCT_KEYS                   NUMBER
AVG_LEAF_BLOCKS_PER_KEY          NUMBER
AVG_DATA_BLOCKS_PER_KEY          NUMBER
CLUSTERING_FACTOR               NUMBER
STATUS                           VARCHAR2(8)
NUM_ROWS                        NUMBER
SAMPLE_SIZE                     NUMBER
LAST_ANALYZED                    DATE
DEGREE                          VARCHAR2(40)
INSTANCES                       VARCHAR2(40)
PARTITIONED                     VARCHAR2(3)
TEMPORARY                       VARCHAR2(1)
GENERATED                       VARCHAR2(1)
SECONDARY                       VARCHAR2(1)
BUFFER_POOL                      VARCHAR2(7)
USER_STATS                      VARCHAR2(3)
DURATION                        VARCHAR2(15)
PCT_DIRECT_ACCESS               NUMBER
ITYP_OWNER                      VARCHAR2(30)
ITYP_NAME                       VARCHAR2(30)
PARAMETERS                      VARCHAR2(1000)
GLOBAL_STATS                    VARCHAR2(3)
DOMIDX_STATUS                    VARCHAR2(12)
DOMIDX_OPSTATUS                  VARCHAR2(6)
FUNCIDX_STATUS                  VARCHAR2(8)
JOIN_INDEX                      VARCHAR2(3)
IOT_REDUNDANT_PKEY_ELIM          VARCHAR2(3)
DROPPED                         VARCHAR2(3)

SQL>  select owner,index_name,index_type,table_name from dba_indexes;
```