

Upravljanje Oracle bazama podataka – Lab #10

Import/Export podataka

Zadaci laba

1. Upotrijebite EXP utility za izvoz nekoliko odabranih tablica iz sheme LOLEK vaše baze.

- 1) Upotrijebite `exp -help` za pregled dostupnih opcija. Posebno obratite pozornost na opcije `USER_ID`, `FILE`, `OWNER`, `TABLES`, `TABLESPACES`, `CONSTRAINTS`, `GRANTS`, `INDEXES` i `ROWS`. Provjerite i default-ne vrijednosti opcija.
- 2) Kreirajte EXP direktorij na disku. Provjerite je li podešena `ORACLE_SID` varijabla.
- 3) Korištenjem EXP alata napravite export tablica `INVOICE` i `INVOICE_DETAILS`. Osim strukture tablica trebaju biti export-ani podatci, indeksi, ograničenja i privilegije. Provjerite u log datoteci je li bilo grešaka za vrijeme export-a!

```
C:\app\upbapod\exp>echo %ORACLE_SID%
TZUL
```

```
C:\app\upbapod\exp>exp LOLEK file=exp.dmp log=exp.log
tables=(INVOICE, INVOICE_DETAILS)
```

```
Export: Release 11.2.0.1.0 - Production on 11-19-2016 13:14:36
```

```
Copyright (c) 1982, 2009, Oracle and/or its affiliates. All rights reserved.
```

```
Password:
```

```
Connected to: Oracle Database 11g Release 11.2.0.1.0 - Production
Export done in EE8MSWIN1250 character set and AL16UTF16 NCHAR character set
server uses AL32UTF8 character set (possible charset conversion)
```

```
About to export specified tables via Conventional Path ...
```

```
.. exporting table                INVOICE                1 rows exported
.. exporting table                INVOICE_DETAILS          1 rows exported
```

```
Export terminated successfully without warnings.
```

```
C:\app\upbapod\exp>
```

2. Spojite se na bazu kao DBA te izbrišite export-ane tablice iz baze.

```
C:\app\upbapod\exp>sqlplus /nolog
```

```
SQL*Plus: Release 11.2.0.1.0 Production on 11-19-2016 13:22:04
```

```
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```

```
SQL> connect /as sysdba
Connected.
```

```
SQL> select table_name from dba_tables where owner='LOLEK';
```

```
TABLE_NAME
```

```
-----
INVOICE_DETAILS
```

INVOICE
PRODUCT
VENDOR

```
SQL> drop table LOLEK.INVOICE cascade constraints;
```

Table dropped.

```
SQL> drop table LOLEK.INVOICE_DETAILS;
```

Table dropped.

```
SQL> select table_name from dba_tables where owner='LOLEK';
```

```
TABLE_NAME
-----
PRODUCT
VENDOR
```

```
SQL>
```

3. Kao korisnik LOLEK Upotrijebite IMP utility za import izbrisanih tablica nazad u bazu.

- 1) Upotrijebite `imp -help` za pregled dostupnih opcija. Posebno pogledajte opcije IGNORE, FULL, FROMUSER i TOUSER.
- 2) Korištenjem IMP alata napravite import tablica s podacima, indeksima, ograničenjima i privilegijama.

```
C:\app\upbapod\exp>imp LOLEK file=exp.dmp log=imp.log ignore=Y full=Y
```

```
Import: Release 11.2.0.1.0 - Production on Uet Svi 19 13:30:43 2016
```

```
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```

```
Password:
```

```
Connected to: Oracle Database 11g Release 11.2.0.1.0 - Production
```

```
Export file created by EXPORT:V11.02.00 via conventional path
import done in EE8MSWIN1250 character set and AL16UTF16 NCHAR character set
import server uses AL32UTF8 character set (possible charset conversion)
. importing LOLEK's objects into LOLEK
. importing LOLEK's objects into LOLEK
IMP-00017: following statement failed with ORACLE error 1031:
  "CREATE TABLE "INVOICE" ("INVOICE_ID" NUMBER(3, 0), "INVOICE_DATE" DATE NOT
  "NULL ENABLE, "INVOICE_AMOUNT" NUMBER(10, 2), "PROMISE_DATE" DATE,"VENDOR_I"
  "D" NUMBER(5, 0) NOT NULL ENABLE) STORAGE(INITIAL 40960 NEXT 40960 MINEXTEN"
  "TS 1 FREELISTS 1 FREELIST GROUPS 1 BUFFER_POOL DEFAULT) TABLESPACE "DATA"
LOGGING NOCOMPRESS"
IMP-00003: ORACLE error 1031 encountered
ORA-01031: insufficient privileges
IMP-00017: following statement failed with ORACLE error 1031:
  "CREATE TABLE "INVOICE_DETAILS" ("INVOICE_ID" NUMBER(3, 0), "PRODUCT_ID"
  NUMBER(5, 0), "QUANTITY_ORDERED" NUMBER(8, 2), "ACTUAL_PRICE" NUMBER(8, 2))
  STORAGE(INITIAL 40960 NEXT 40960 MINEXTENTS 1 FREELISTS 1 FREELIST GROUPS 1 "
  "BUFFER_POOL DEFAULT) TABLESPACE "DATA" LOGGING NOCOMPRESS"
IMP-00003: ORACLE error 1031 encountered
ORA-01031: insufficient privileges
Import terminated successfully with warnings.
```

Kao što je vidljivo iz ispisa te iz log datoteke import je završio s greškama uzrokovanih Oracle greškom ORA-01031. Pronađite na internetu opis greške te otklonite njezin uzrok.

```

C:\app\upbapod\exp>sqlplus /nolog

SQL*Plus: Release 11.2.0.1.0 Production on 11-19-2016 13:32:14
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SQL> connect /as sysdba
Connected.
SQL> grant [REDACTED] to LOLEK;

Grant succeeded.

SQL> exit
Disconnected from Oracle Database 11g Release 11.2.0.1.0 - Production

C:\app\upbapod\exp>imp LOLEK file=exp.dmp log=imp.log ignore=Y full=Y

Import: Release 11.2.0.1.0 - Production on 11-19-2016 13:32:44
Copyright (c) 1982, 2009, Oracle and/or its affiliates. All rights reserved.

Password:

Connected to: Oracle Database 11g Release 11.2.0.1.0 - Production

Export file created by EXPORT:V11.02.00 via conventional path
import done in EE8MSWIN1250 character set and AL16UTF16 NCHAR character set
import server uses AL32UTF8 character set (possible charset conversion)
. importing LOLEK's objects into LOLEK
. importing LOLEK's objects into LOLEK
. . importing table "INVOICE" 1 rows imported
. . importing table "INVOICE_DETAILS" 1 rows imported
About to enable constraints...
Import terminated successfully without warnings.

```

Provjerite jesu li u bazu importirane tablice sa podacima.

```

SQL> connect /as sysdba
Connected.
SQL> select table_name from dba_tables where owner='LOLEK';

TABLE_NAME
-----
INVOICE
INVOICE_DETAILS
PRODUCT
VENDOR

```

4. Kao LOLEK korisnik napravite export cijele scheme korištenjem EXPDP (Data Pump) alata.

- 1) Pozivanjem expdp -help pogledajte dostupne opcije i način pozivanja alata.
Obratite pozornost na značenje opcija DIRECTORY, DUMPFILE, EXCLUDE, FULL, INCLUDE, PARALLEL, SCHEMAS, TABLES i TABLESPACES.
- 2) Prije pokretanja Data Pump-a potrebno je da DBA kreira direktorij objekt na bazi i dodijeli privilegije korisniku koji će pokretati Data Pump.

```

C:\app\upbapod\exp>sqlplus /nolog

SQL*Plus: Release 11.2.0.1.0 Production on 11-19-2016 14:00:13
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```

```

SQL> connect /as sysdba
Connected.
SQL> CREATE DIRECTORY dpump_dir AS 'c:\app\upbapod\exp';

Directory created.

SQL> GRANT READ, WRITE ON DIRECTORY dpump_dir TO lolek;

Grant succeeded.

SQL> exit

```

3) Pokrenite Data Pump alat te napravite export cijele LOLEK sheme.

Disconnected from Oracle Database 11g Release 11.2.0.1.0 - Production

```

C:\>EXPDP lolek DUMPFILE=lolek.dmp LOGFILE=lolek_exp.log
DIRECTORY=dpump_dir SCHEMAS=lolek

```

Export: Release 11.2.0.1.0 - Production on Uet Svi 19 14:04:33 2016

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Password:

```

Connected to: Oracle Database 11g Release 11.2.0.1.0 - Production
Starting "LOLEK"."SYS_EXPORT_SCHEMA_01": lolek/***** DUMPFILE=lolek.dmp
LOGF
ILE=lolek_exp.log DIRECTORY=dpump_dir SCHEMAS=lolek
Estimate in progress using BLOCKS method...
Processing object type SCHEMA_EXPORT/TABLE/TABLE_DATA
Total estimation using BLOCKS method: 220.2 MB
Processing object type SCHEMA_EXPORT/PRE_SCHEMA/PROACT_SCHEMA
Processing object type SCHEMA_EXPORT/CLUSTER/CLUSTER
Processing object type SCHEMA_EXPORT/CLUSTER/INDEX
Processing object type SCHEMA_EXPORT/TABLE/TABLE
Processing object type SCHEMA_EXPORT/TABLE/GRANT/OWNER_GRANT/OBJECT_GRANT
Processing object type SCHEMA_EXPORT/TABLE/INDEX/INDEX
Processing object type SCHEMA_EXPORT/TABLE/CONSTRAINT/CONSTRAINT
Processing object type SCHEMA_EXPORT/TABLE/INDEX/STATISTICS/INDEX_STATISTICS
Processing object type SCHEMA_EXPORT/TABLE/COMMENT
Processing object type SCHEMA_EXPORT/TABLE/CONSTRAINT/REF_CONSTRAINT
. . exported "LOLEK"."VENDOR"                      145.9 MB 3000001
rows
. . exported "LOLEK"."PRODUCT"                      6.835 KB      1
rows
. . exported "LOLEK"."INVOICE"                      6.789 KB      1
rows
. . exported "LOLEK"."INVOICE_DETAILS"              6.421 KB      1
rows
Master table "LOLEK"."SYS_EXPORT_SCHEMA_01" successfully loaded/unloaded
*****
*
Dump file set for LOLEK.SYS_EXPORT_SCHEMA_01 is:
  C:\APP\UPBAPOD\EXP\LOLEK.DMP
Job "LOLEK"."SYS_EXPORT_SCHEMA_01" successfully completed at 14:06:02

```

C:\app\upbapod\exp>

5. Kao LOLEK korisnik napravite import cijele scheme korištenjem IMPDP (Data Pump) alata u novu shemu nazvanu LOLEK_COPY.