Cheatography

Db2 Cheat Sheet for Development Cheat Sheet

by Andres Gomez Casanova (angoca) via cheatography.com/73273/cs/18485/

Db2 logo

General

DCL

Grant on a table

```
GRANT SELECT, INSERT ON TABLE tbl1 TO USER1
```

Grant execution on a stored procedure

```
GRANT EXECUTE ON PROCEDURE prc1(INT, CHAR(1)) TO USER1
GRANT EXECUTE ON SPECIFIC PROCEDURE myproc TO admins
```

Revoke on a table

```
REVOKE DELETE ON TABLE mytable FROM user1
```

Source

Created by: Andres Gomez Casanova (@angoca)

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Get the most recent version at https://github.com/angoca/db2-cheat-sheet/

License

DDL

Create a schema

```
CREATE SCHEMA sch1
```

Create a table specifying primary key

```
CREATE TABLE tbl1 (col1 CHAR(1) NOT NULL PRIMARY KEY)
CREATE TABLE tbl2 (col1 INT NOT NULL, col2 DATE NOT NULL, PRIMARY KEY (
```

Create a table specifying tablespaces

```
CREATE TABLE tbl3 (col1 INT NOT NULL, col2 CHAR(1)) IN ts1 INDEX IN ts2
```

Create a table specifying schema

```
CREATE TABLE sch1.tbl4 (col1 INT)
```

Create a table with auto incremental column

```
CREATE TABLE tbl5 (col1 INT NOT NULL GENERATED AS IDENTITY)
```

Create a table like another one

```
CREATE TABLE tbl6 LIKE tbl1 IN ts1 INDEX IN ts2
```

Comment on table and column

```
COMMENT ON TABLE tbl1 IS 'Comment in table'
COMMENT ON COLUMN tbl1.col1 IS 'Descr iption of the field'
```

Declare a temporary table (session schema)

```
DECLARE GLOBAL TEMPORARY TABLE tmp1 (col1 INT, col2 DATE) ON COMMIT PRE
```

DDL (cont)

Create a global temporary tablespace

```
CREATE GLOBAL TEMPORARY TABLE tmp2
```

Create an index

```
CREATE INDEX idx1 ON tbl2 (col2)
```

Create a unique index

```
CREATE UNIQUE INDEX idx2 ON tbl5 (
```

Drop an index

```
DROP INDEX idx1
```

Add a column (requires Reorg table)

```
ALTER TABLE tbl1 ADD COLUMN col3 t
```

Change nullability

```
ALTER TABLE tbl1 ALTER COLUMN col3
```

Drop nullability

```
ALTER TABLE tbl1 ALTER COLUMN col3
```

Rename a column

```
ALTER TABLE tbl1 RENAME COLUMN col
```

Drop column

```
ALTER TABLE tbl1 DROP COLUMN new3
```

Create a primary key constraint

```
ALTER TABLE tbl5 ADD CONSTRAINT pk
```

Drop primary key

```
ALTER TABLE tbl5 DROP PRIMARY KEY
```

Add identity

```
ALTER TABLE tbl2 ALTER col1 SET GE
```

Restart identity

```
ALTER TABLE tbl2 ALTER col1 RESTAR
```

Drop identity

```
ALTER TABLE tbl2 ALTER col1 DROP I
```

Create a foreign key

```
ALTER TABLE tbl5 ADD CONSTRAINT fk
```

Create a check constraint

```
ALTER TABLE tbl1 ADD CONSTRAINT ch
```

Enforce a constraint

```
ALTER TABLE tbl1 ALTER CHECK chk E
```

Not enforce a constraint

```
ALTER TABLE tbl5 ALTER FOREIGN KEY
```

Change the granularity of the locks

```
ALTER TABLE tbl1 LOCKSIZE TABLE
```

Execution of a file in the console (db2clp)

› Semi-colon separated sentences:

```
db2 -t
```

› At sign separated sentences (when there is SQL PL code):

```
db2 -td@
```

Define a terminator character

```
--#SET TERMINATOR @
```

List all databases (aliases)

```
LIST DB DIRECTORY
```

Connect to a database (alias)

```
CONNECT TO mydb
```

Disconnect from a database

```
CONNECT RESET
TERMINATE
```

Get values from the environment (registry values)

* Current timestamp

```
VALUES CURRENT TIMESTAMP
```

› Connected user

```
VALUES CURRENT USER
```

› Current database

```
VALUES CURRENT SERVER
```

List all tables

```
LIST TABLES
LIST TABLES FOR SCHEMA myuser
LIST TABLES FOR ALL
```

Change current schema

```
SET CURRENT SCHEMA others chema
```

Change the isolation level

```
SET ISOLATION RR
```

List all tablespaces with their status

```
LIST TABLES PACES
```

Describe the estructure of the table

```
DESCRIBE TABLE mytable
```

Describe the result of a query

```
DESCRIBE SELECT * FROM mytable
```

Get help for a Db2 command

```
? command
```

Get help for a SQL code (SQLXXXX) or SQLstate (YYYYY)

```
? SQLXXX
? YYYYY
```

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DDL (cont)

Drop a table

```
DROP TABLE tbl1
```

Rename a table

```
RENAME TABLE tbl2 TO table2
```

Truncate a table

```
TRUNCATE TABLE tbl1 IMMEDIATE
```

Create a sequence

```
CREATE SEQUENCE seq AS INTEGER
```

Restart sequence

```
ALTER SEQUENCE seq RESTART WITH 15
```

Create a stored procedure

```
CREATE OR REPLACE PROCEDURE prc1 (IN ... OUT ret DATE) SPECIFIC mypr BEGIN SET ret = (SELECT col2 FROM
```

Create a trigger

```
CREATE TRIGGER cp_val AFTER INSERT ON ... REFERE NCING NEW AS n FOR EACH ROW INSERT INTO tbl2 VALUES (n.col
```

Create a view

```
CREATE VIEW vw1 AS SELECT col2 FROM t...
```

DML

Insert values on a table

```
INSERT INTO tbl3 VALUES (2, 'b')
INSERT INTO tbl3 VALUES (3, 'c'), (4, ...
```

Insert certain columns

```
INSERT INTO tbl1 (col1) VALUES (6)
```

Insert values from a select

```
INSERT INTO tbl6 SELECT col1 FROM tbl...
```

Insert in temporary table

```
INSERT INTO sessio n.tmp1 VALUES (1)
```

Update fields

```
UPDATE tbl3 SET col1 = 5, mycol2 = 'e...
UPDATE tbl3 SET col2 = 'd' WHERE col1...
```

Merge (upsert)

```
MERGE INTO tbl3 AS t USING (SELECT co... col1 = s.col1) WHEN MATCHED THEN UPDATE SET col2
```

Delete rows

```
DELETE FROM tbl1 --all table
DELETE FROM tbl1 WHERE col1 > 5
```

DML (cont)

Export

```
EXPORT TO myfile OF DEL SELECT * FROM tbl1
```

Import

```
IMPORT FROM myfile OF DEL INSERT INTO mytable1
```

Cursor

```
DECLARE cur1 CURSOR FOR SELECT * FROM tbl1
```

Load

```
LOAD FROM myfile OF DEL INSERT INTO tbl1
LOAD FROM cur1 OF CURSOR INSERT INTO tbl1
```

Query the status of the load in a table

```
LOAD QUERY TABLE tbl1
```

Set integrity

```
SET INTEGRITY FOR tbl1 IMMEDIATE CHECKED
```

Ingest

```
INGEST FROM FILE myfile FORMAT DELIMITED INSERT INTO tbl1
```

Get the next value from a sequence

```
VALUES NEXT VALUE FOR seq
INSERT INTO tbl3 (col1) VALUES (NEXT VALUE FOR seq)
```

Queries

Put a lock at table level

```
LOCK TABLE tbl1 IN EXCLUSIVE MODE
```

Execute a query without regard of commit rows

```
SELECT * FROM tbl1 WITH UR --RR,RS,CS
```

Execute a query with only 5 rows

```
SELECT * FROM tbl1 FETCH FIRST 5 ROWS ONLY
```

Perform a query to a dummy table (dual)

```
SELECT 'Any string' FROM SYSIBM.SY SDUMMY1
```

Perform a query calling a function

```
SELECT HEX(col2) FROM tbl5
```

Call a function

```
VALUES ...
```

Perform a cast

```
VALUES CAST('123' AS INTEGER)
```

Concatenate

```
VALUES 'AnyText' || 5
VALUES 'AnyText' concat 5
```

Escape a single quote in a text field

```
VALUES 'Sinead o''Connor'
```

Query the database catalog

```
SELECT * FROM SYSCAT.TABLES
SELECT * FROM SYSCAT.TA BAUTH
```

Queries (cont)

```
SELECT * FROM SYSCAT.RO UTINES
```

TCL

Commit changes

```
COMMIT
```

Create a savepoint

```
SAVEPOINT sp1 ON ROLLBACK RETAIN C
```

Undo changes until savepoint

```
ROLLBACK TO SAVEPOINT sp1
```

Undo changes

```
ROLLBACK
```