

### Db2 logo



### General

### DCL

#### Grant on a table

```
GRANT SELECT, INSERT ON TABLE tb11 TO USER
```

#### Grant execution on a stored procedure

```
GRANT EXECUTE ON PROCEDURE prc1(INT, DATE) TO USER
```

```
GRANT EXECUTE ON SPECIFIC PROCEDURE myproc ON tb11 TO USER
```

#### Revoke on a table

```
REVOKE DELETE ON TABLE mytable FROM USER
```

### Source

Created by: Andres Gomez Casanova (@angoca)

Version: 2019-08-04

Get the most recent version at

<https://github.com/angoca/db2-cheat-sheet/>

### License

This work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

### DDL

#### Create a schema

```
CREATE SCHEMA sch1
```

#### Create a table specifying primary key

```
CREATE TABLE tb11 (col1 CHAR(1) NOT NULL, col2 DATE NOT NULL, PRIMARY KEY (col1, col2))
```

#### Create a table specifying tablespaces

```
CREATE TABLE tb13 (col1 INT NOT NULL, col2 CHAR(1)) IN ts1 INDEX IN ts2
```

#### Create a table specifying schema

```
CREATE TABLE sch1.tb14 (col1 INT)
```

#### Create a table with auto incremental column

```
CREATE TABLE tb15 (col1 INT NOT NULL GENERATED AS IDENTITY)
```

#### Create a table like another one

```
CREATE TABLE tb16 LIKE tb11 IN ts1 INDEX IN ts2
```

#### Comment on table and column

```
COMMENT ON TABLE tb11 IS 'Comment in table'
COMMENT ON COLUMN tb11.col1 IS 'Description of the field'
```

#### Declare a temporary table (session schema)

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

### DDL (cont)

#### Create a global temporary tablespace

```
CREATE GLOBAL TEMPORARY TABLE tmp2
```

#### Create an index

```
CREATE INDEX idx1 ON tb12 (col2)
```

#### Create a unique index

```
CREATE UNIQUE INDEX idx2 ON tb15 (col1)
```

#### Drop an index

```
DROP INDEX idx1
```

#### Add a column (requires Reorg table)

```
ALTER TABLE tb11 ADD COLUMN col3 TEXT
```

#### Change nullability

```
ALTER TABLE tb11 ALTER COLUMN col3 SET NULL
```

#### Drop nullability

```
ALTER TABLE tb11 ALTER COLUMN col3 SET NOT NULL
```

#### Rename a column

```
ALTER TABLE tb11 RENAME COLUMN col1 TO col2
```

#### Drop column

```
ALTER TABLE tb11 DROP COLUMN new3
```

#### Create a primary key constraint

```
ALTER TABLE tb15 ADD CONSTRAINT pk1 PRIMARY KEY (col1, col2)
```

#### Drop primary key

```
ALTER TABLE tb15 DROP PRIMARY KEY
```

#### Add identity

```
ALTER TABLE tb12 ALTER col1 SET GENERATED ALWAYS AS IDENTITY
```

#### Restart identity

```
ALTER TABLE tb12 ALTER col1 RESTART IDENTITY
ALTER TABLE tb12 ALTER col1 RESTART IDENTITY WITH NO RESTART
```

#### Drop identity

```
ALTER TABLE tb12 ALTER col1 DROP IDENTITY
```

#### Create a foreign key

```
ALTER TABLE tb15 ADD CONSTRAINT fk1 FOREIGN KEY (col1, col2) REFERENCES tb11 (col1, col2)
```

#### Create a check constraint

```
ALTER TABLE tb11 ADD CONSTRAINT chk1 CHECK (col1 < 10)
ALTER TABLE tb11 ALTER CHECK chk1 ENABLE
```

#### Enforce a constraint

```
ALTER TABLE tb15 ALTER FOREIGN KEY fk1 ENFORCE
```

#### Not enforce a constraint

```
ALTER TABLE tb15 ALTER FOREIGN KEY fk1 NOENFORCE
```

#### Change the granularity of the locks

```
ALTER TABLE tb11 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
```



By **Andres Gomez Casanova**  
(angoca)  
[cheatography.com/angoca/](http://cheatography.com/angoca/)  
[angoca.users.sf.net](http://angoca.users.sf.net)

Published 8th January, 2019.  
Last updated 6th August, 2019.  
Page 1 of 3.

Sponsored by **CrosswordCheats.com**  
Learn to solve cryptic crosswords!  
<http://crosswordcheats.com>

### 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 mypr OUT ret DATE) SPECIFIC mypr
```

#### Create a trigger

```
CREATE TRIGGER cp_val AFTER INSERT ON tbl1
```

#### Create a view

```
CREATE VIEW vw1 AS SELECT col2 FROM tbl1
```

### DML

#### Insert values on a table

```
INSERT INTO tbl3 VALUES (2, 'b')
```

```
INSERT INTO tbl3 VALUES (3, 'c'), (4, 'd')
```

#### Insert certain columns

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

#### Insert values from a select

```
INSERT INTO tbl6 SELECT col1 FROM tbl1
```

#### Insert in temporary table

```
INSERT INTO session.tmp1 VALUES (1)
```

#### Update fields

```
UPDATE tbl3 SET col1 = 5, mycol2 = 'e'
```

```
UPDATE tbl3 SET col2 = 'd' WHERE col1 = 5
```

#### Merge (upsert)

```
MERGE INTO tbl3 AS t USING (SELECT col1 FROM tbl1) s ON t.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.SYSDUMMY1
```

#### Perform a query calling a function

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

#### Call a function

```
VALUES FROM HEX(1) myNext! col1 = s.col1) WHEN MATCHED THEN UPDATE SET col2
```

#### 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
```

```
BEGIN SET ret = (SELECT col2 FROM
```



By **Andres Gomez Casanova**  
(angoca)  
[cheatography.com/angoca/](http://cheatography.com/angoca/)  
[angoca.users.sf.net](http://angoca.users.sf.net)

Published 8th January, 2019.  
Last updated 6th August, 2019.  
Page 2 of 3.

Sponsored by **CrosswordCheats.com**  
Learn to solve cryptic crosswords!  
<http://crosswordcheats.com>