

Db2 logo



General

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 otherschema
```

Change the isolation level

```
SET ISOLATION RR
```

General (cont)

List all tablespaces with their status

```
LIST TABLESPACES
```

Describe the structure 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
```

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 jdoe
```

```
GRANT EXECUTE ON SPECIFIC
PROCEDURE mypr TO GROUP admins
```

Revoke on a table

```
REVOKE DELETE ON TABLE mytable
FROM recur
```

Source

Created by: Andres Gomez Casanova (@angoca)
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Get the most recent version at <https://github.com/angoca/db2-cheat-sheet/>

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DDL

Create a schema

```
CREATE SCHEMA sch1
```

Create a table specifying primary key

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

```
CREATE TABLE tb12 (col1 INT 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
```

Create a global temporary tablespace

```
CREATE GLOBAL TEMPORARY TABLE
tmp2 (col1 INT)
```

Create an index

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



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DDL (cont)

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
timestamp
```

Change nullability

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

Drop nullability

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

Rename a column

```
ALTER TABLE tb11 RENAME COLUMN
col3 TO new3
```

Drop column

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

Create a primary key constraint

```
ALTER TABLE tb15 ADD CONSTRAINT
pkt5 PRIMARY KEY (col1)
```

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 WITH 1
```

Drop identity

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

Create a foreign key

```
ALTER TABLE tb15 ADD CONSTRAINT
fkt5 FOREIGN KEY (col1)
REFERENCES tb111 (col1)
```

Create a check constraint

DDL (cont)

```
ALTER TABLE tb11 ADD CONSTRAINT
chk CHECK (col1 in ('a', 'b',
'c'))
```

Enforce a constraint

```
ALTER TABLE tb11 ALTER CHECK chk
ENFORCED
```

Not enforce a constraint

```
ALTER TABLE tb15 ALTER FOREIGN
KEY fkt5 NOT ENFORCED
```

Change the granularity of the locks

```
ALTER TABLE tb11 LOCKSIZE TABLE
```

Drop a table

```
DROP TABLE tb11
```

Rename a table

```
RENAME TABLE tb12 TO table2
```

Truncate a table

```
TRUNCATE TABLE tb11 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 val INT, OUT ret DATE)
SPECIFIC mypr BEGIN SET ret =
(SELECT col2 FROM tb12 WHERE
col1 = val); END @
```

Create a trigger

```
CREATE TRIGGER cp_val AFTER
INSERT ON tb11 REFERENCING NEW
AS n FOR EACH ROW INSERT INTO
tb12 VALUES (n.col1, n.col2)
```

Create a view

```
CREATE VIEW vw1 AS SELECT col2
FROM tb11
```

DML

Insert values on a table

```
INSERT INTO tb13 VALUES (2, 'b')
INSERT INTO tb13 VALUES (3,
'c'), (4, 'd'), (5, 'e') --
Atomic
```

Insert certain columns

```
INSERT INTO tb11 (col1) VALUES
(6)
```

Insert values from a select

```
INSERT INTO tb16 SELECT col1
FROM tb11
```

Insert in temporary table

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

Update fields

```
UPDATE tb13 SET col1 = 5, mycol2
= 'e' --all table
UPDATE tb13 SET col2 = 'd' WHERE
col1 = 7
```

Merge (upsert)

```
MERGE INTO tb13 AS t USING
(SELECT col1 FROM tb11) s ON
(t.col1 = s.col1) WHEN MATCHED
THEN UPDATE SET col2 = 'X' WHEN
NOT MATCHED THEN INSERT VALUES
(10, 'X')
```

Delete rows

```
DELETE FROM tb11 --all table
DELETE FROM tb11 WHERE col1 > 5
```

Export

```
EXPORT TO myfile OF DEL SELECT *
FROM tb11
```

Import

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

Cursor

```
DECLARE cur1 CURSOR FOR SELECT *
FROM tb11
```

Load

```
LOAD FROM myfile OF DEL INSERT
INTO tb11
LOAD FROM cur1 OF CURSOR INSERT
INTO tb11
```



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DML (cont)

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 HEX('AnyText')
```

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'
```

Queries (cont)

Query the database catalog

```
SELECT * FROM SYSCAT.TABLES  
SELECT * FROM SYSCAT.TABAUTH  
SELECT * FROM SYSCAT.ROUTINES
```

TCL

Commit changes

```
COMMIT
```

Create a savepoint

```
SAVEPOINT sp1 ON ROLLBACK RETAIN  
CURSORS
```

Undo changes until savepoint

```
ROLLBACK TO SAVEPOINT sp1
```

Undo changes

```
ROLLBACK
```



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