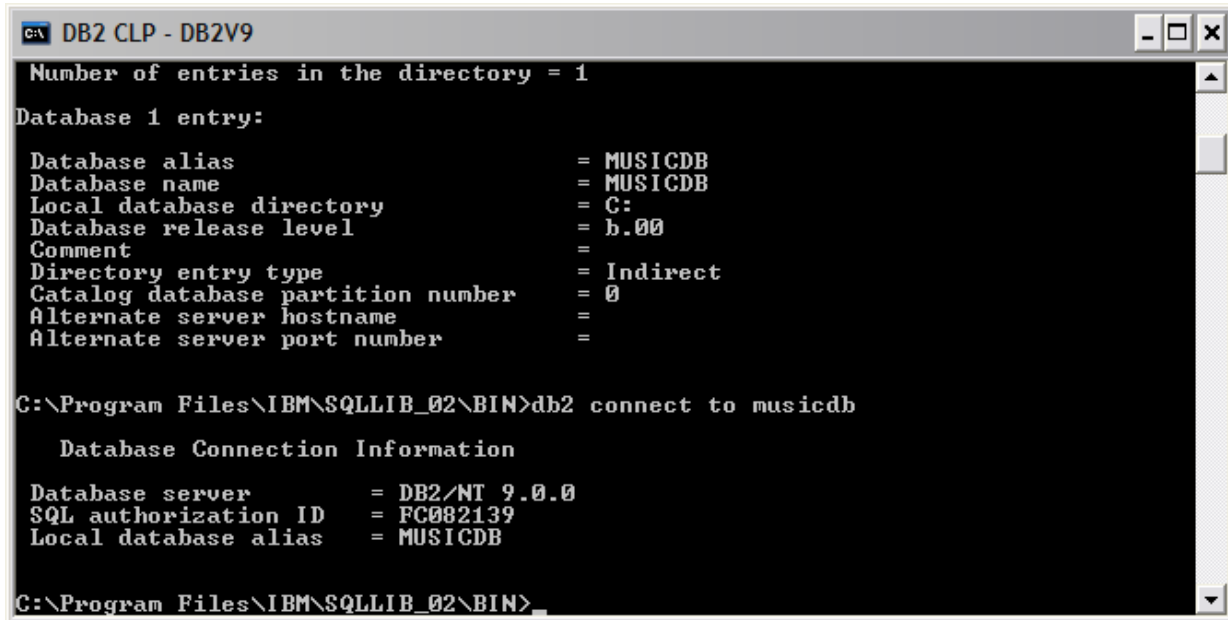IBM **Information Management** software

Command Line Processor (CLP) and GUI usage

CLP Command Line Processor

```
DB2 CLP - DB2V9                                              _ □ ×

 Number of entries in the directory = 1

Database 1 entry:

 Database alias                       = MUSICDB
 Database name                        = MUSICDB
 Local database directory             = C:
 Database release level               = b.00
 Comment                              =
 Directory entry type                 = Indirect
 Catalog database partition number    = 0
 Alternate server hostname            =
 Alternate server port number         =


C:\Program Files\IBM\SQLLIB_02\BIN>db2 connect to musicdb

   Database Connection Information

 Database server        = DB2/NT 9.0.0
 SQL authorization ID   = FC082139
 Local database alias   = MUSICDB


C:\Program Files\IBM\SQLLIB_02\BIN>_
```
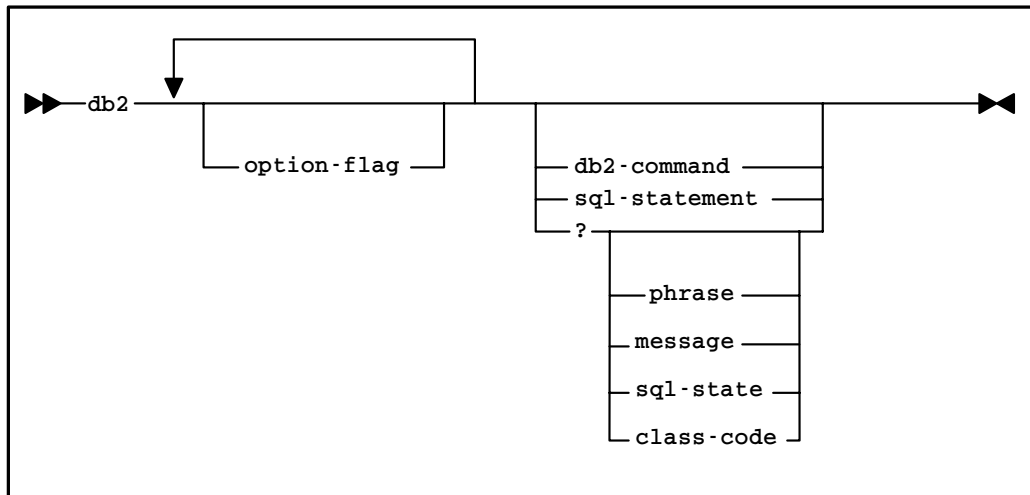
CLP syntax

A railroad syntax diagram showing:

```
>>--db2--+----------------+--+--------------------+--><
         |  <-----------  |  |                    |
         +-option-flag----+  +--db2-command-------+
                             +--sql-statement-----+
                             +--?-----------------+
                                  +--phrase-----+
                                  +--message----+
                                  +--sql-state--+
                                  +--class-code-+
```

Online reference

- Online Command Reference

```
db2 ?
db2 ? command string
db2 ? SQLnnnn    (nnnn = 4 or 5 digit SQLCODE)
db2 ? nnnnn     (nnnnn = 5 digit SQLSTATE)
```

- Online Reference Manuals

Using the CLP

db2 connect to musicdb
db2 "select * from syscat.tables" | more

(double quotes may be required)

Interactive mode

db2
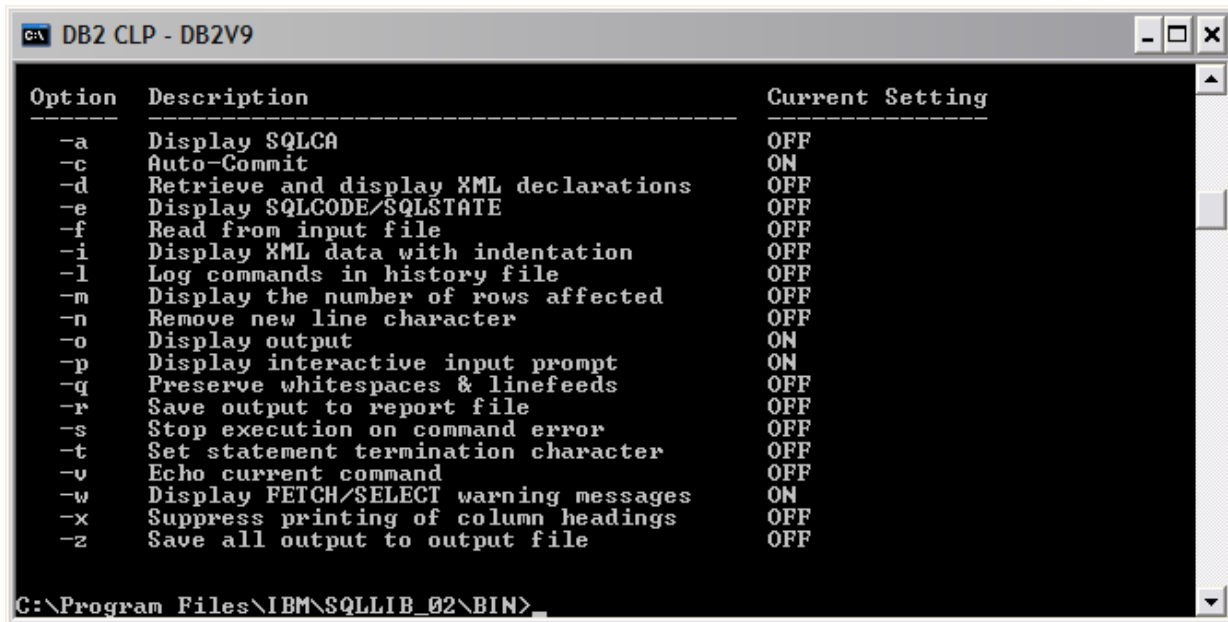db2=> connect to musicdb
db2=> select * from syscat.tables

QUIT/TERMINATE/CONNECT RESET differences

CLP COMMAND	Terminate CLP Back-end Process	Disconnect database Connection
quit	No	No
terminate	Yes	Yes
connect reset	No	Yes if CONNECT=1 (RUOW)

CLP command options

```
DB2 CLP - DB2V9

Option    Description                              Current Setting
-------   ------------------------------------     ---------------
  -a      Display SQLCA                            OFF
  -c      Auto-Commit                              ON
  -d      Retrieve and display XML declarations    OFF
  -e      Display SQLCODE/SQLSTATE                 OFF
  -f      Read from input file                     OFF
  -i      Display XML data with indentation        OFF
  -l      Log commands in history file             OFF
  -m      Display the number of rows affected      OFF
  -n      Remove new line character                OFF
  -o      Display output                           ON
  -p      Display interactive input prompt         ON
  -q      Preserve whitespaces & linefeeds         OFF
  -r      Save output to report file               OFF
  -s      Stop execution on command error          OFF
  -t      Set statement termination character      OFF
  -v      Echo current command                     OFF
  -w      Display FETCH/SELECT warning messages    ON
  -x      Suppress printing of column headings     OFF
  -z      Save all output to output file           OFF

C:\Program Files\IBM\SQLLIB_02\BIN>_
```

db2 list command options

Modify CLP options

(1)   **Temporary for Command**

```
db2 -r  options.rep list command options
db2 -svtf  create.tab3
db2 +c  "update tab3 set salary=salary + 100"
```

(2)   **Temporary for Interactive CLP Session**

```
db2=>update command options using  c off  a on
```

(3)   **Temporary for non-interactive CLP Session**

```
export DB2OPTIONS="-svt"  (UNIX)
set DB2OPTIONS="-svt"     (Windows)
db2 -f create.tab3
```

(4)   **Every session**

put point   **(3)**   in UNIX **db2profile**
                      or System Program Group in Windows

Input file — no operating system commands

Edit create.tab

```
-- comment:  db2 -svtf create.tab


connect to sample;

create table tab3
  (name varchar(20) not null,
   phone char(40),
   salary dec(7,2));

select * from tab3;

commit work;

connect reset;
```
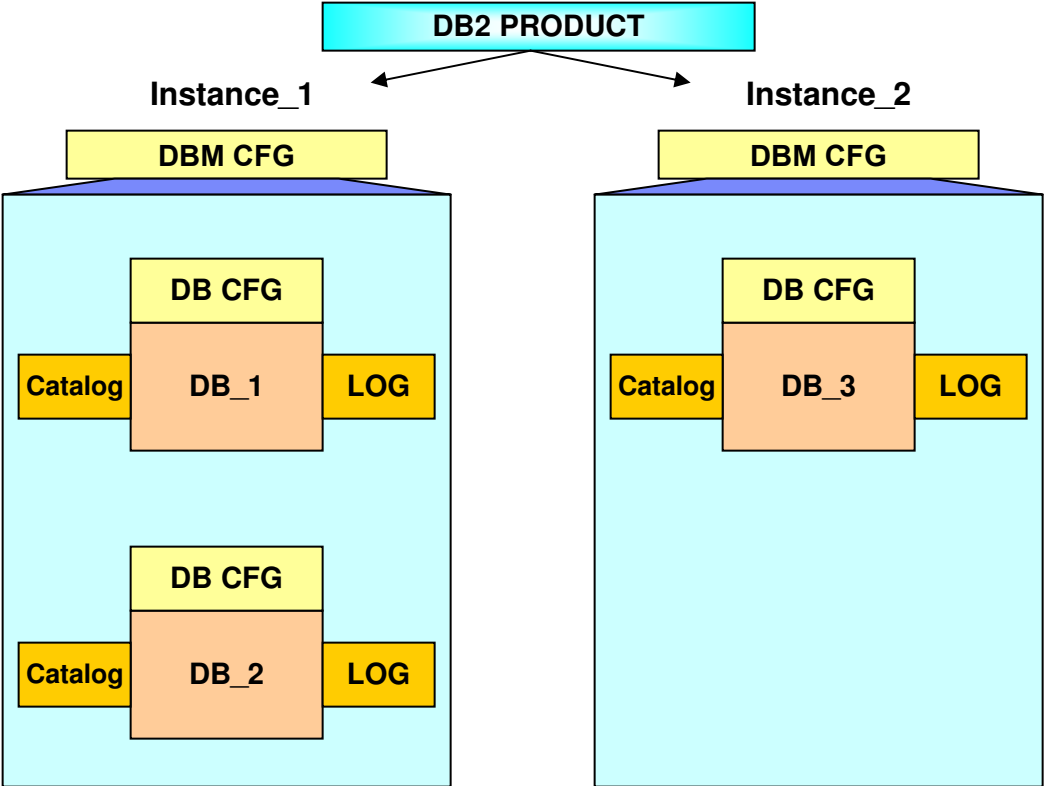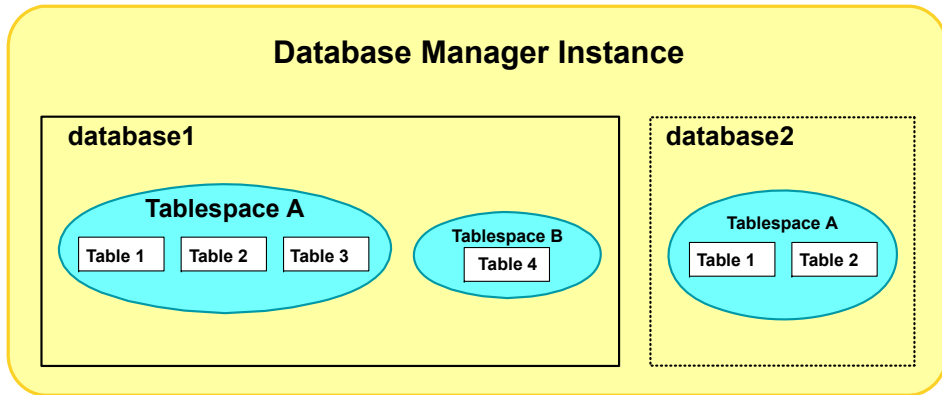
db2 -svtf create.tab

What is an instance?

DB2 PRODUCT

Instance_1 — Instance_2

Instance_1:
- DBM CFG
  - DB CFG
    - Catalog | DB_1 | LOG
  - DB CFG
    - Catalog | DB_2 | LOG

Instance_2:
- DBM CFG
  - DB CFG
    - Catalog | DB_3 | LOG

Create database overview

- Databases are created within a Database Manager instance

- Table spaces are a logical layer created within database

- Tables are created within table spaces

System Catalog tables and views

SYSCAT

SYSSTAT

views

⋮
SYSIBM.SYSCOLUMNS
SYSIBM.SYSTABLES
⋮