

Working with IBM Data Studio

Task. 1. Working with database objects

Read chapter 2 in e-book [Getting Started with IBM Data Studio for DB2](#); put attention to the following task: using the perspective *Database Administration* (this perspective is used for example to create and maintain database objects).

Start Data Studio and choose the perspective *Database Administration* (from menu *Window -> Open perspective -> Other* and choose *Database Administration*)

1. In Administration Explorer window check the name and state of the default instance and what are possible database connections.
2. Configure the connection with database testdb and connect to it (first, check if the account STUDENT is created in your system with the password STUDENT)

Host name	Address IP server name, localhost, for local server
Port	Port number (default is 50000)
Instance name	default: DB2
User name	STUDENT
Password	STUDENT

3. View database objects (schemas, tables, tablespaces, aliases, views)
4. List all schemas; create new schema with the name testschema (when a new object is added or we change the properties of an existing one, Data Studio creates and opens the Change Plan for this operation; it contains all the modifications; to execute the operation, we must first choose the option Generate DDL; the new window will open, in which we can review and deploy the changes; we have three options: edit commands; schedule to run as a job; deploy the change commands)
5. List all tables (for tables from one schema, choose first the schema and then go to its tables);
create a new table department in schema testschema, with fields:
DEPT_NO SMALLINT NOT NULL PRIMARY KEY GENERATED AS IDENTITY,
NAME CHAR(9),
BUDGET DECIMAL(7,2)
6. Display and read the properties of this table and of column DEPT_NO
7. Change the data type of field NAME to VARCHAR(30)
8. Display all data of table department (choose the table, and from the context menu choose the option *Data->Browse data*; to edit data choose *Data->Edit Data*);
insert new department
9. Create table employee in schema testschema, with fields:
ID SMALLINT NOT NULL PRIMARY KEY,
NAME VARCHAR(9),
DEPT SMALLINT NOT NULL,
JOB CHAR(5),
SALARY DECIMAL(8,2) WITH DEFAULT 2000.0
BONUS GENERATED AS(SALARY*0.1)
10. Add foreign key on field DEPT in table employee, referencing field DEPT in table department (choose *Constraints->Create foreign key*)
11. insert new employee (choose the proper value for the DEPT field)
12. display objects that depend or are dependent on the table department (choose table department and from the context menu choose *Analyze Impact*)
13. display the diagram of dependencies for table department (from the context menu choose *Show->In Overview Diagram*)
14. do tasks in points 12 and 13 for tables employee and department in database SAMPLE.