Task 1

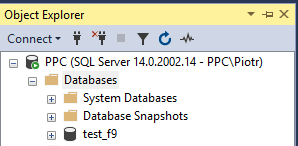
1. Choose New Query option for opening SQL worksheet window.



1. Define new database named test\_yourname using CREATE DATABASE statement.

CREATE DATABASE test\_f9;

1. Refresh Object Explorer panel to see your new database.



1. Check the name of the database you are connected to. You can change a current database using the statement:  
   USE database\_name

USE test\_f9;

1. Define table named BANDS, which consists of the following columns: band\_id – integer, primery key,  name – varchar limited to 40 characters, origin\_country -  varchar limited to 50 characters, formed\_year – integer.

CREATE TABLE BANDS (

band\_id INTEGER PRIMARY KEY,

name VARCHAR(40),

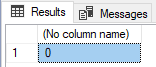
origin\_country VARCHAR(50),

formed\_year INTEGER

);

1. Check the number of records in that table using SELECT count(\*) … statement.

SELECT COUNT(\*) FROM BANDS;



1. Insert into the table one record: name: The Beatles, origin\_country: England, formed\_year 1960

INSERT INTO BANDS (band\_id, name, origin\_country, formed\_year)

VALUES (1, 'The Beatles', 'England', 1960);

1. Display all the data using SELECT statement.

SELECT \* FROM BANDS;



1. Check the number of records in that table again.

SELECT COUNT(\*) FROM BANDS;



1. Create another table named MEMBERS consisted of: memeber\_id - integer incremental from 100 by 1, band\_id - int, surname - varchar limited to 60 characters, name varchar limited to 50 characters.

CREATE TABLE MEMBERS (

member\_id INTEGER PRIMARY KEY IDENTITY(100, 1),

band\_id INTEGER,

surname VARCHAR(60),

name VARCHAR(50),

);

1. Add foreign key on band\_id column of MEMBERS table, which references BANDS table.

ALTER TABLE MEMBERS ADD

CONSTRAINT fk\_members\_bands FOREIGN KEY (band\_id) REFERENCES BANDS(band\_id)

1. Insert into that table 2 records for The Beatles band: John Lennon and Paul McCartney.

DECLARE @band INT;

SELECT @band = band\_id

FROM BANDS

WHERE name = 'The Beatles';

INSERT INTO MEMBERS (band\_id, surname, name)

VALUES (@band, 'Lennon', 'John');

INSERT INTO MEMBERS (band\_id, surname, name)

VALUES (@band, 'McCartney', 'Paul');

1. Insert into BANDS table another record: name: Queen, origin\_country: Great Britain, formed\_year: 1971

INSERT INTO BANDS (band\_id, name, origin\_country, formed\_year)

VALUES (2, 'Queen', 'Great Britain', 1971);

1. Insert another member: Freddie Mercury.

DECLARE @band INT;

SELECT @band = band\_id

FROM BANDS

WHERE name = 'Queen';

INSERT INTO MEMBERS (band\_id, surname, name)

VALUES (@band, 'Mercury', 'Freddie');

1. Add constraint, which doesn’t allow entering year earlier than 1920.

ALTER TABLE BANDS ADD CHECK (formed\_year >= 1920);

1. Add another record to ensure that the constraint works properly.

INSERT INTO BANDS (band\_id, name, origin\_country, formed\_year)

VALUES (3, 'Louisiana Five', 'United States', 1917);

Msg 547, Level 16, State 0, Line 1

The INSERT statement conflicted with the CHECK constraint "CK\_\_BANDS\_\_formed\_ye\_\_3D5E1FD2". The conflict occurred in database "test\_f9", table "dbo.BANDS", column 'formed\_year'.

The statement has been terminated.