Zadanie 3

1 Procedura tworząca backup pojedynczej bazy

```
CREATE DATABASE AdminDB;

USE AdminDB
CREATE TABLE BK_LOG (bk_id INT NOT NULL IDENTITY CONSTRAINT PK_BK_LOG PRIMARY KEY,
    nazwa_b NVARCHAR(100) NOT NULL,
    nazwa_pliku_bk NVARCHAR(200) NOT NULL,
    kto NVARCHAR(100) NOT NULL DEFAULT SUSER_SNAME(),
    skad NVARCHAR(100) NOT NULL DEFAULT HOST_NAME(),
    kiedy DATETIME NOT NULL DEFAULT GETDATE()
);


ALTER PROCEDURE bk_db @nazwa_b NVARCHAR(100)
AS
BEGIN
    DECLARE @file_name NVARCHAR(255);
    DECLARE @current_date NVARCHAR(12) = FORMAT(GETDATE(), 'yyyyMMddHHmm');
    SET @file_name = @nazwa_b + '_' + @current_date + '.bak';
    DECLARE @backup_path NVARCHAR(255) = 'C:\Users\Public\backups\' + @file_name;


    BACKUP DATABASE @nazwa_b
    TO DISK = @backup_path;

    INSERT INTO AdminDB.dbo.BK_LOG (nazwa_b, nazwa_pliku_bk) VALUES (@nazwa_b, @file_name);

END;

EXEC bk_db 'db1';
```

Sprawdzenie logów

```
SELECT * FROM AdminDB.dbo.BK_LOG
```

Results | Messages

	bk_id	nazwa_b	nazwa_pliku_bk	kto	skad	kiedy
1	1	db1	db1_202311242338	WIN-87U1HNU46OH\Administrator	WIN-87U1HNU46OH	2023-11-24 23:38:45.357

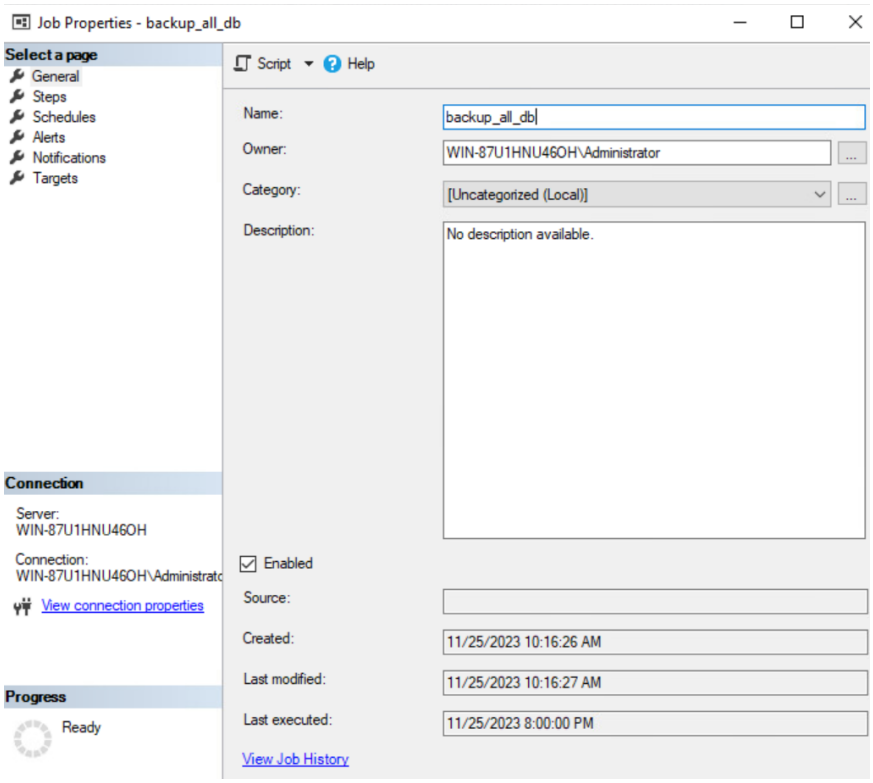
Sprawdzenie w czy powstał backup w katalogu

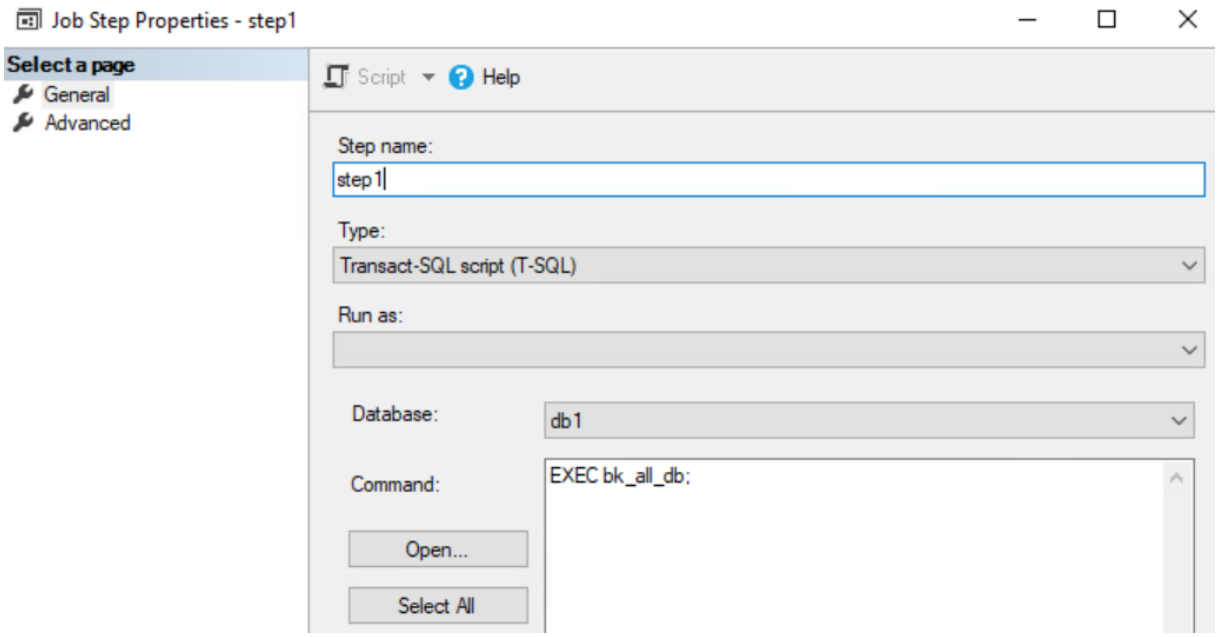
Name	Date modified	Type	Size
db1_202311242338.bak	11/24/2023 11:42 ...	BAK File	3,609 KB

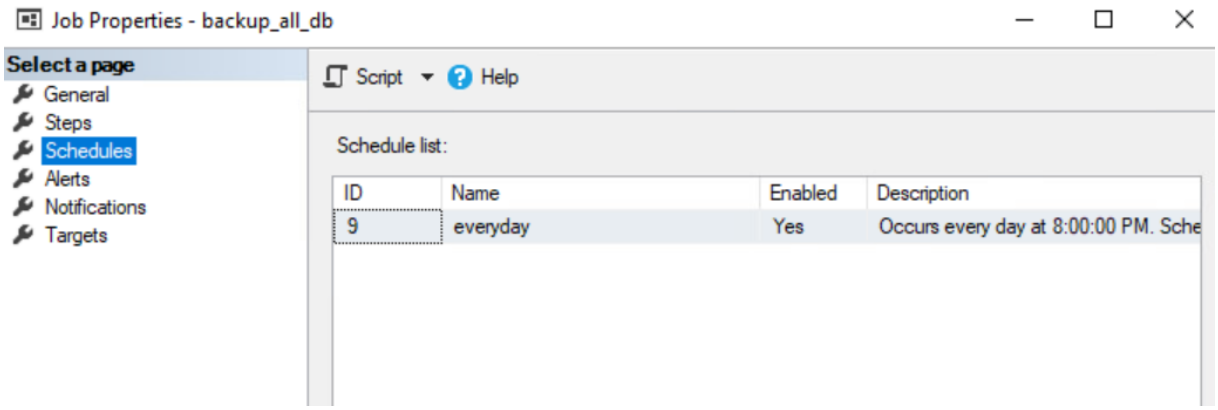
2 Procedura robiąca backup wszystkich baz

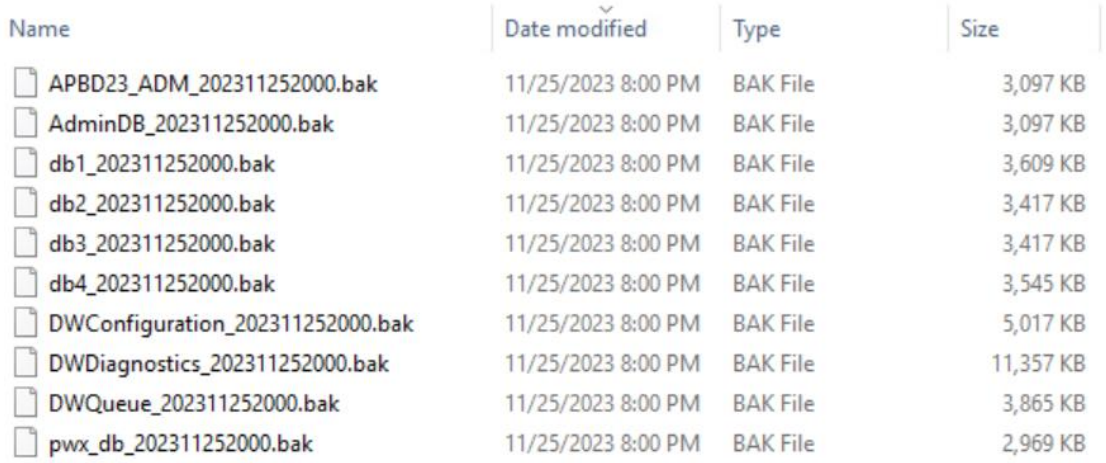
```
CREATE PROCEDURE bk_all_db
AS
BEGIN
    DECLARE @db_name NVARCHAR(100);
    DECLARE @backup_path NVARCHAR(255) = 'C:\Users\Public\backups\';
    DECLARE @file_name NVARCHAR(255)
    DECLARE @current_date NVARCHAR(12) = FORMAT(GETDATE(), 'yyyyMMddHHmm');

    DECLARE CI CURSOR FOR SELECT name FROM master.sys.databases
    WHERE name NOT IN ('master','model','msdb','tempdb')
    OPEN CI
    FETCH NEXT FROM CI INTO @db_name
    WHILE @@FETCH_STATUS = 0
    BEGIN
       SET @file_name = @backup_path + @db_name + '_' + @current_date + '.bak'
       BACKUP DATABASE @db_name TO DISK = @file_name
       FETCH NEXT FROM CI INTO @db_name
    END

    CLOSE CI
    DEALLOCATE Ci

END;
```

Zaplanowanie uruchamiania procedury




Job Step Properties - step1
Select a page
General
Advanced
Script
Help
Step name:
step1
Type:
Transact-SQL script (T-SQL)
Run as:
Database:
db1
Command:
EXEC bk_all_db;
Open...
Select All

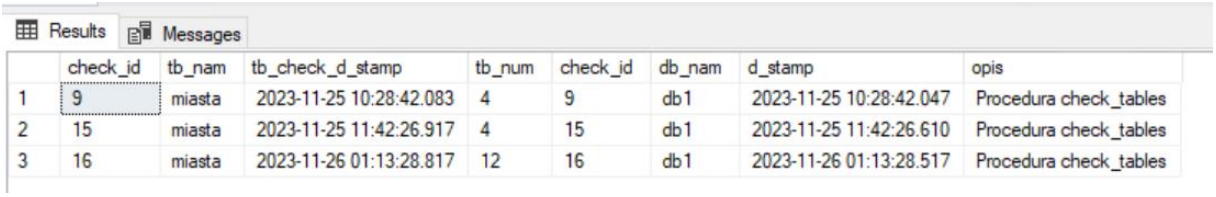

Job Properties - backup_all_db
Select a page
General
Steps
Schedules
Alerts
Notifications
Targets
Script
Help
Schedule list:
ID
Name
Enabled
Description
9
everyday
Yes
Occurs every day at 8:00:00 PM. Sche


Name
Date modified
Type
Size
APBD23_ADM_202311252000.bak 11/25/2023 8:00 PM BAK File 3,097 KB
AdminDB_202311252000.bak 11/25/2023 8:00 PM BAK File 3,097 KB
db1_202311252000.bak 11/25/2023 8:00 PM BAK File 3,609 KB
db2_202311252000.bak 11/25/2023 8:00 PM BAK File 3,417 KB
db3_202311252000.bak 11/25/2023 8:00 PM BAK File 3,417 KB
db4_202311252000.bak 11/25/2023 8:00 PM BAK File 3,545 KB
DWConfiguration_202311252000.bak 11/25/2023 8:00 PM BAK File 5,017 KB
DWDiagnostics_202311252000.bak 11/25/2023 8:00 PM BAK File 11,357 KB
DWQueue_202311252000.bak 11/25/2023 8:00 PM BAK File 3,865 KB
pwx_db_202311252000.bak 11/25/2023 8:00 PM BAK File 2,969 KB

3 Procedura tworząca backup bazy gdzie nastąpił przyrost o określoną liczbę rekordów

```
ALTER PROCEDURE check_backup @number INT
 AS
BEGIN
    DECLARE @db_name NVARCHAR(50);
    DECLARE @tb_name NVARCHAR(50);

    DECLARE db_cursor CURSOR FOR SELECT DISTINCT db_nam FROM APBD23_ADM.dbo.DB_CHECK;

    OPEN db_cursor;
    FETCH NEXT FROM db_cursor INTO @db_name;
    WHILE @@FETCH_STATUS = 0
    BEGIN
        DECLARE @from_db NVARCHAR(50);
        SET @from_db = QUOTENAME(@db_name) + '.INFORMATION_SCHEMA.TABLES';
        DECLARE @sql NVARCHAR(MAX);
        SET @sql = 'DECLARE table_cursor CURSOR FOR SELECT DISTINCT table_name FROM ' + @from_db;
        EXEC sp_executesql @sql;

        OPEN table_cursor
        FETCH NEXT FROM table_cursor INTO @tb_name;
        WHILE @@FETCH_STATUS = 0
        BEGIN
            CREATE TABLE #HistoryData (
                check_id INT,
                tb_nam NVARCHAR(50),
                stamp1 DATETIME,
                tb_num INT,
                check_id2 INT,
                db_nam NVARCHAR(50),
                stamp2 DATETIME,
                opis NVARCHAR(MAX)
            );

            INSERT INTO #HistoryData
            EXEC history @db_name, @tb_name;

            IF (
            SELECT MAX(tb_num) - MIN(tb_num)
            FROM #HistoryData
            WHERE check_id IN (SELECT TOP 2 check_id FROM #HistoryData ORDER BY check_id DESC)
            ) > @number
            BEGIN
                EXEC bk_db @db_name
            END

            DROP TABLE #HistoryData;

            FETCH NEXT FROM table_cursor INTO @tb_name;
        END

        CLOSE table_cursor;
        DEALLOCATE table_cursor;


        FETCH NEXT FROM db_cursor INTO @db_name;
    END

    CLOSE db_cursor;
    DEALLOCATE db_cursor;
END;

EXEC check_backup 4
```

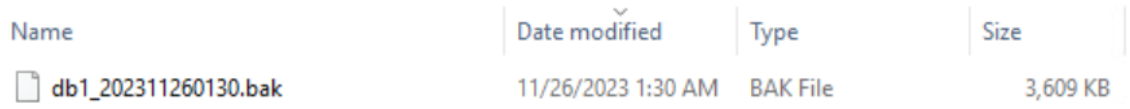
Wystąpił przyrost w bazie db1 w tabeli miasta i z wywołaniem procedury z parametrem 4



Results | Messages

	check_id	tb_nam	tb_check_d_stamp	tb_num	check_id	db_nam	d_stamp	opis
1	9	miasta	2023-11-25 10:28:42.083	4	9	db1	2023-11-25 10:28:42.047	Procedura check_tables
2	15	miasta	2023-11-25 11:42:26.917	4	15	db1	2023-11-25 11:42:26.610	Procedura check_tables
3	16	miasta	2023-11-26 01:13:28.817	12	16	db1	2023-11-26 01:13:28.517	Procedura check_tables

Został wykonany backup bazy db1



Name	Date modified	Type	Size
db1_202311260130.bak	11/26/2023 1:30 AM	BAK File	3,609 KB