

PES UNIVERSITY

ELECTIVE 1: DATABASE TECHNOLOGIES (UE18CS315)

ASSIGNMENT 5

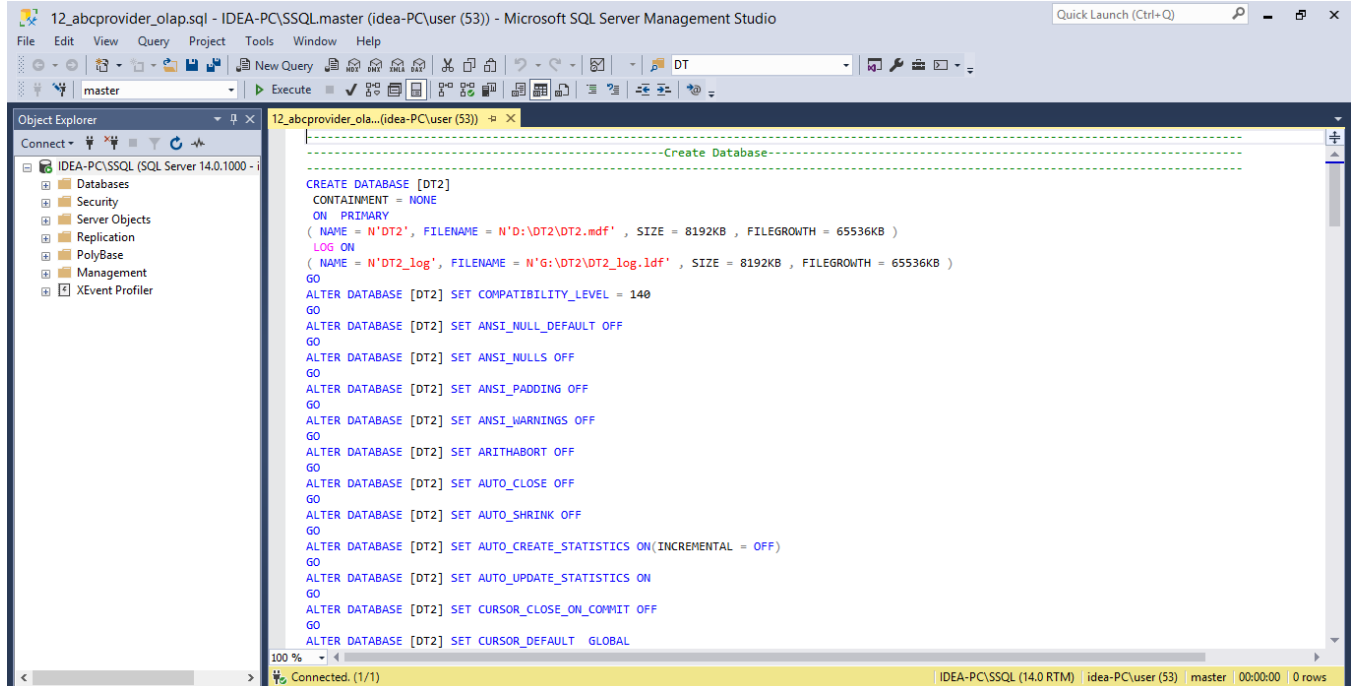
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SRN: PES1201801754

SEMESTER: 5

SECTION: J

Creating database 'DT2':

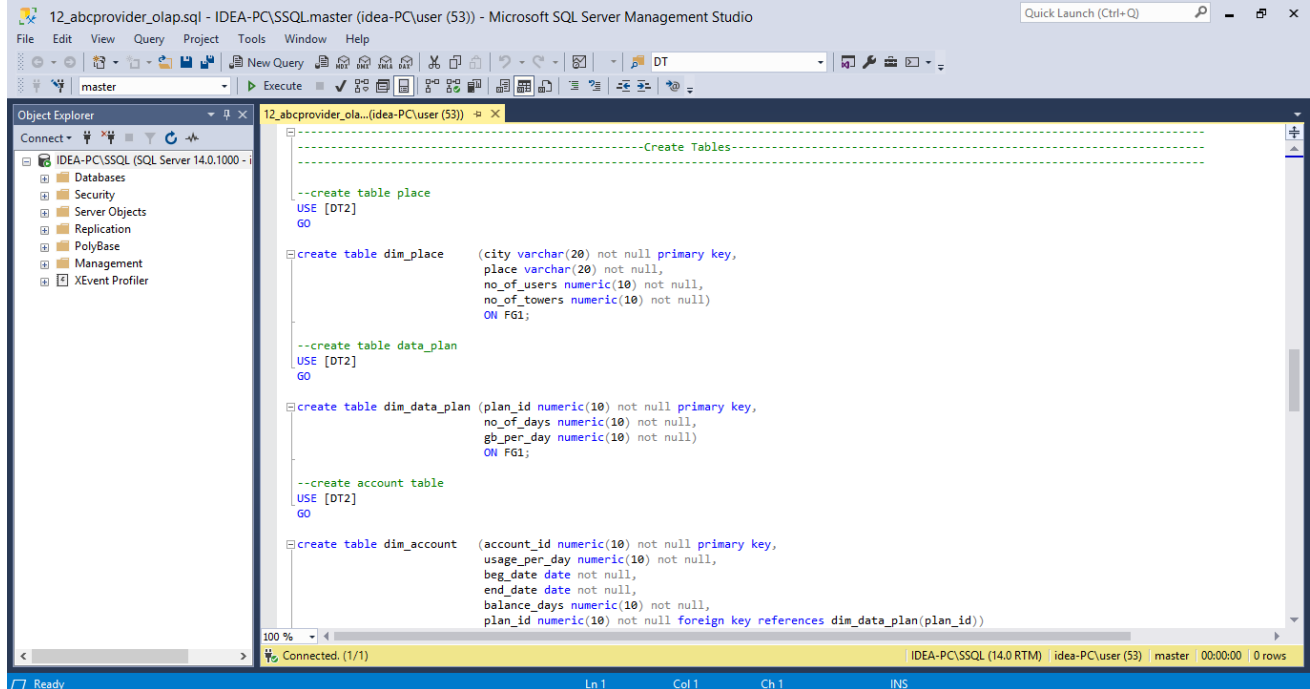


The screenshot displays the Microsoft SQL Server Management Studio interface. The title bar indicates the file '12_abcprovider_olap.sql' is open in the 'IDEA-PC\SSQL.master (idea-PC\user (53))' project. The 'Object Explorer' on the left shows the 'IDEA-PC\SSQL (SQL Server 14.0.1000 - i)' tree with folders for Databases, Security, Server Objects, Replication, PolyBase, Management, and XEvent Profiler. The 'master' database is selected. The main query window, titled '12_abcprovider_olap... (idea-PC\user (53))', contains the following SQL script:

```
-----Create Database-----  
  
CREATE DATABASE [DT2]  
CONTAINMENT = NONE  
ON PRIMARY  
( NAME = N'DT2', FILENAME = N'D:\DT2\DT2.mdf', SIZE = 8192KB , FILEGROWTH = 65536KB )  
LOG ON  
( NAME = N'DT2_log', FILENAME = N'G:\DT2\DT2_log.ldf', SIZE = 8192KB , FILEGROWTH = 65536KB )  
GO  
ALTER DATABASE [DT2] SET COMPATIBILITY_LEVEL = 140  
GO  
ALTER DATABASE [DT2] SET ANSI_NULL_DEFAULT OFF  
GO  
ALTER DATABASE [DT2] SET ANSI_NULLS OFF  
GO  
ALTER DATABASE [DT2] SET ANSI_PADDING OFF  
GO  
ALTER DATABASE [DT2] SET ANSI_WARNINGS OFF  
GO  
ALTER DATABASE [DT2] SET ARITHABORT OFF  
GO  
ALTER DATABASE [DT2] SET AUTO_CLOSE OFF  
GO  
ALTER DATABASE [DT2] SET AUTO_SHRINK OFF  
GO  
ALTER DATABASE [DT2] SET AUTO_CREATE_STATISTICS ON(INCREMENTAL = OFF)  
GO  
ALTER DATABASE [DT2] SET AUTO_UPDATE_STATISTICS ON  
GO  
ALTER DATABASE [DT2] SET CURSOR_CLOSE_ON_COMMIT OFF  
GO  
ALTER DATABASE [DT2] SET CURSOR_DEFAULT GLOBAL
```

The status bar at the bottom shows 'Connected. (1/1)' and 'IDEA-PC\SSQL (14.0 RTM) | idea-PC\user (53) | master | 00:00:00 | 0 rows'.

Creating tables (dim_place, dim_data_plan, dim_account, dim_customer, fact_abc):



The screenshot shows the Microsoft SQL Server Management Studio interface. The title bar indicates the file is '12_abcprovider_olap.sql' and the server is 'IDEA-PC\SSQLmaster (idea-PC\user (53))'. The Object Explorer on the left shows the database structure. The main query window contains the following SQL script:

```
--Create Tables--

--create table place
USE [DT2]
GO

create table dim_place (city varchar(20) not null primary key,
place varchar(20) not null,
no_of_users numeric(10) not null,
no_of_towers numeric(10) not null)
ON FG1;

--create table data_plan
USE [DT2]
GO

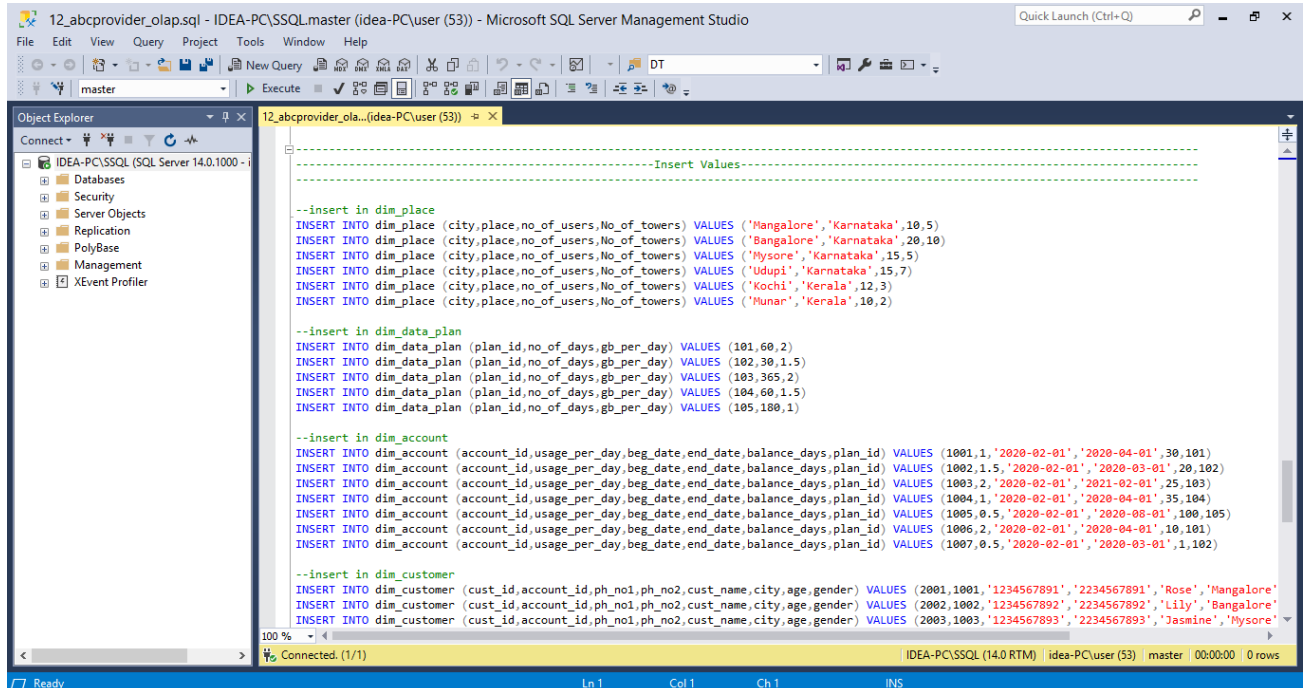
create table dim_data_plan (plan_id numeric(10) not null primary key,
no_of_days numeric(10) not null,
gb_per_day numeric(10) not null)
ON FG1;

--create account table
USE [DT2]
GO

create table dim_account (account_id numeric(10) not null primary key,
usage_per_day numeric(10) not null,
beg_date date not null,
end_date date not null,
balance_days numeric(10) not null,
plan_id numeric(10) not null foreign key references dim_data_plan(plan_id))
```

The status bar at the bottom shows 'Connected. (1/1)' and 'IDEA-PC\SSQL (14.0 RTM) | idea-PC\user (53) | master | 00:00:00 | 0 rows'.

Inserting values into the tables:



The screenshot shows the Microsoft SQL Server Management Studio interface with the same file and server as the previous screenshot. The main query window contains the following SQL script:

```
--Insert Values--

--insert in dim_place
INSERT INTO dim_place (city,place,no_of_users,No_of_towers) VALUES ('Mangalore','Karnataka',10,5)
INSERT INTO dim_place (city,place,no_of_users,No_of_towers) VALUES ('Bangalore','Karnataka',20,10)
INSERT INTO dim_place (city,place,no_of_users,No_of_towers) VALUES ('Mysore','Karnataka',15,5)
INSERT INTO dim_place (city,place,no_of_users,No_of_towers) VALUES ('Udupi','Karnataka',15,7)
INSERT INTO dim_place (city,place,no_of_users,No_of_towers) VALUES ('Kochi','Kerala',12,3)
INSERT INTO dim_place (city,place,no_of_users,No_of_towers) VALUES ('Munari','Kerala',10,2)

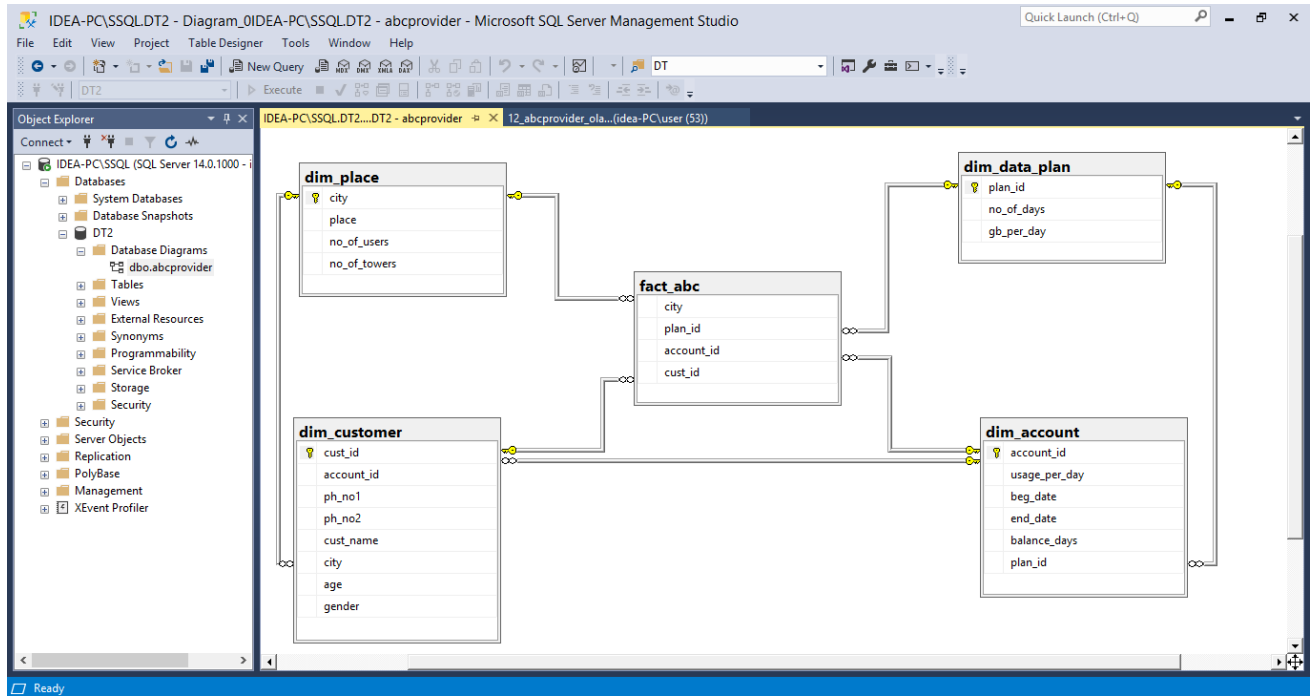
--insert in dim_data_plan
INSERT INTO dim_data_plan (plan_id,no_of_days,gb_per_day) VALUES (101,60,2)
INSERT INTO dim_data_plan (plan_id,no_of_days,gb_per_day) VALUES (102,30,1.5)
INSERT INTO dim_data_plan (plan_id,no_of_days,gb_per_day) VALUES (103,365,2)
INSERT INTO dim_data_plan (plan_id,no_of_days,gb_per_day) VALUES (104,60,1.5)
INSERT INTO dim_data_plan (plan_id,no_of_days,gb_per_day) VALUES (105,180,1)

--insert in dim_account
INSERT INTO dim_account (account_id,usage_per_day,beg_date,end_date,balance_days,plan_id) VALUES (1001,1,'2020-02-01','2020-04-01',30,101)
INSERT INTO dim_account (account_id,usage_per_day,beg_date,end_date,balance_days,plan_id) VALUES (1002,1.5,'2020-02-01','2020-03-01',20,102)
INSERT INTO dim_account (account_id,usage_per_day,beg_date,end_date,balance_days,plan_id) VALUES (1003,2,'2020-02-01','2021-02-01',25,103)
INSERT INTO dim_account (account_id,usage_per_day,beg_date,end_date,balance_days,plan_id) VALUES (1004,1,'2020-02-01','2020-04-01',35,104)
INSERT INTO dim_account (account_id,usage_per_day,beg_date,end_date,balance_days,plan_id) VALUES (1005,0.5,'2020-02-01','2020-08-01',100,105)
INSERT INTO dim_account (account_id,usage_per_day,beg_date,end_date,balance_days,plan_id) VALUES (1006,2,'2020-02-01','2020-04-01',10,101)
INSERT INTO dim_account (account_id,usage_per_day,beg_date,end_date,balance_days,plan_id) VALUES (1007,0.5,'2020-02-01','2020-03-01',1,102)

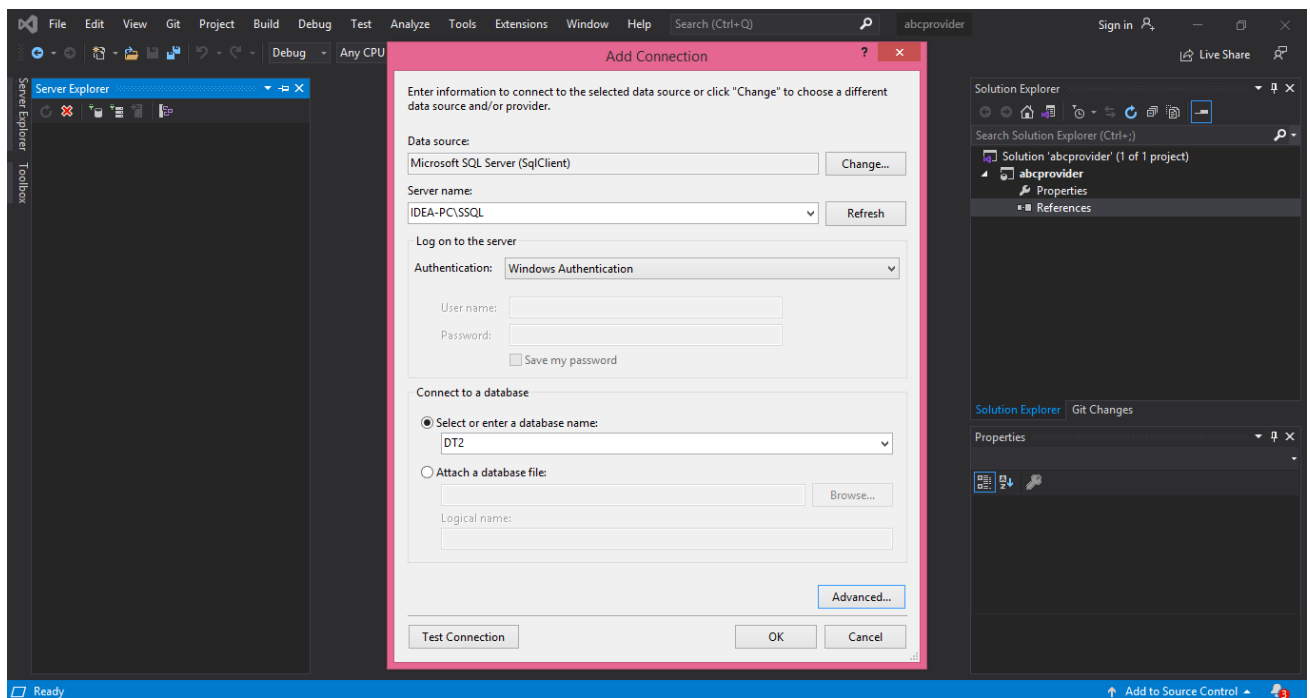
--insert in dim_customer
INSERT INTO dim_customer (cust_id,account_id,ph_no1,ph_no2,cust_name,city,age,gender) VALUES (2001,1001,'1234567891','2234567891','Rose','Mangalore')
INSERT INTO dim_customer (cust_id,account_id,ph_no1,ph_no2,cust_name,city,age,gender) VALUES (2002,1002,'1234567892','2234567892','Lily','Bangalore')
INSERT INTO dim_customer (cust_id,account_id,ph_no1,ph_no2,cust_name,city,age,gender) VALUES (2003,1003,'1234567893','2234567893','Jasmine','Mysore')
```

The status bar at the bottom shows 'Connected. (1/1)' and 'IDEA-PC\SSQL (14.0 RTM) | idea-PC\user (53) | master | 00:00:00 | 0 rows'.

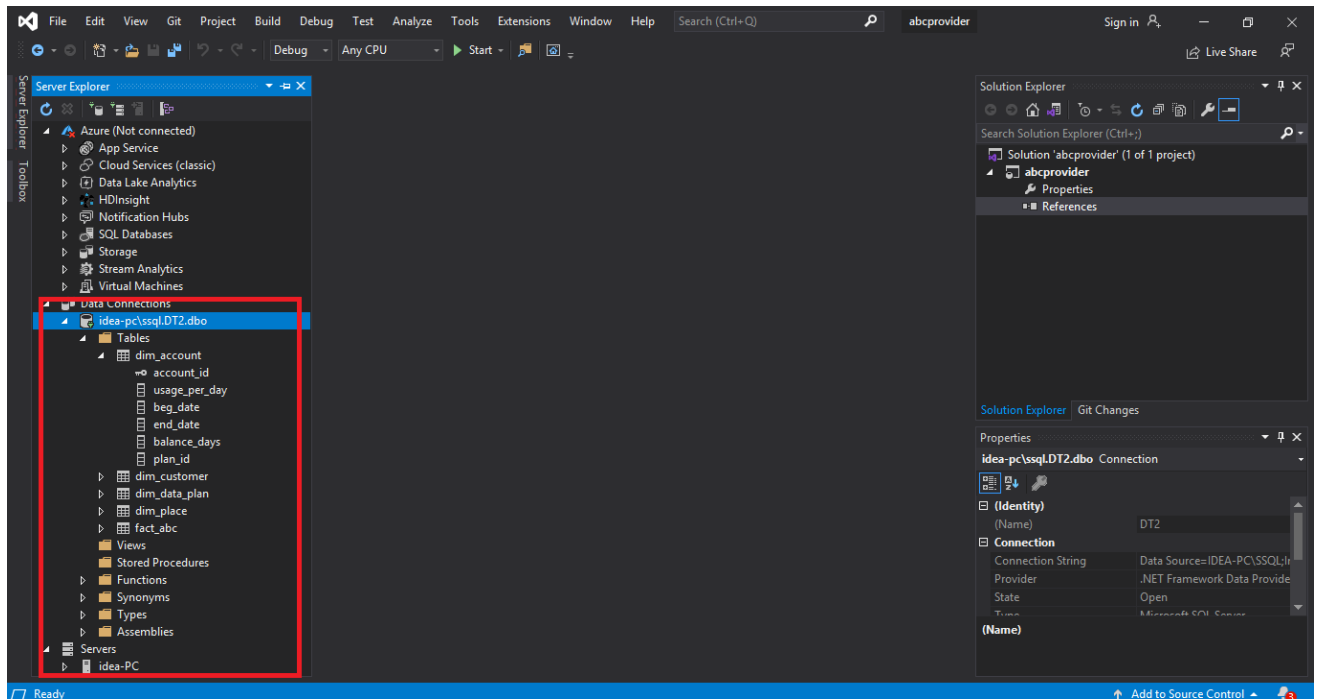
Creating the schema (Database diagram):



Linking Microsoft sql server and visual studio:

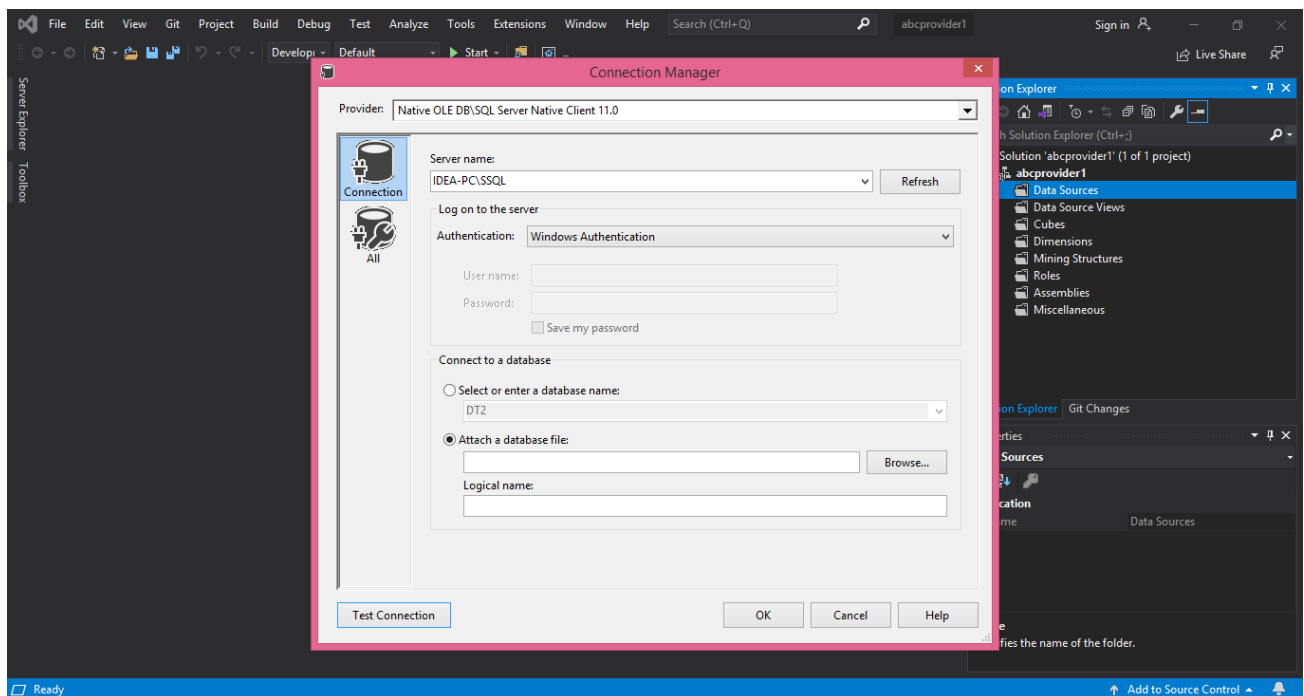


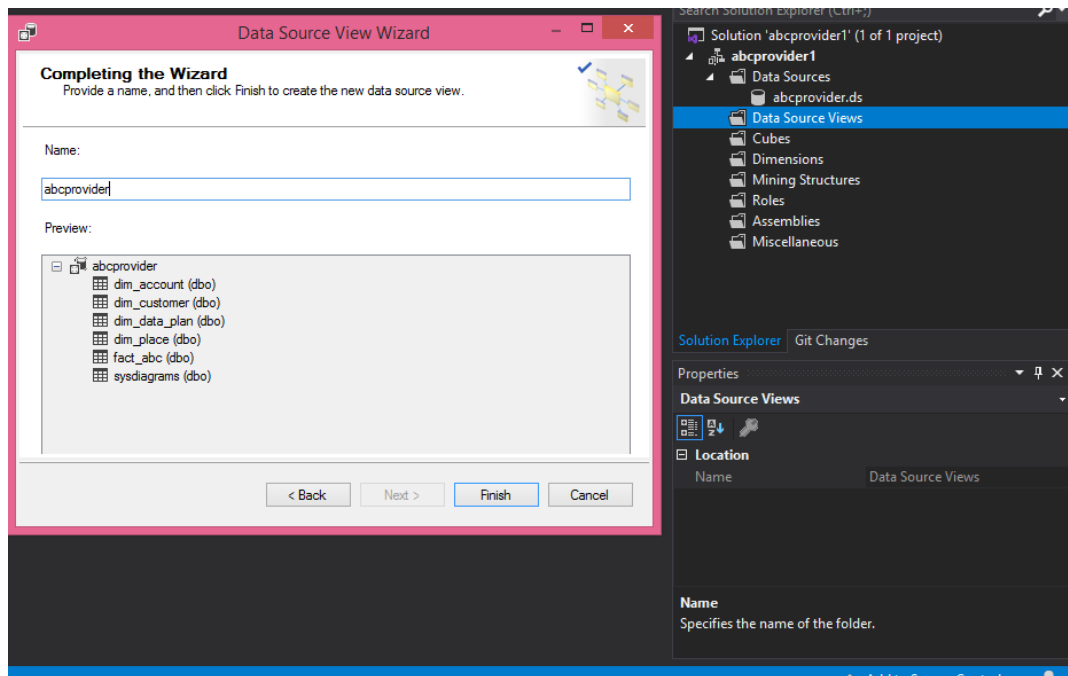
We are able to view all the tables and its attributes in visual studio:



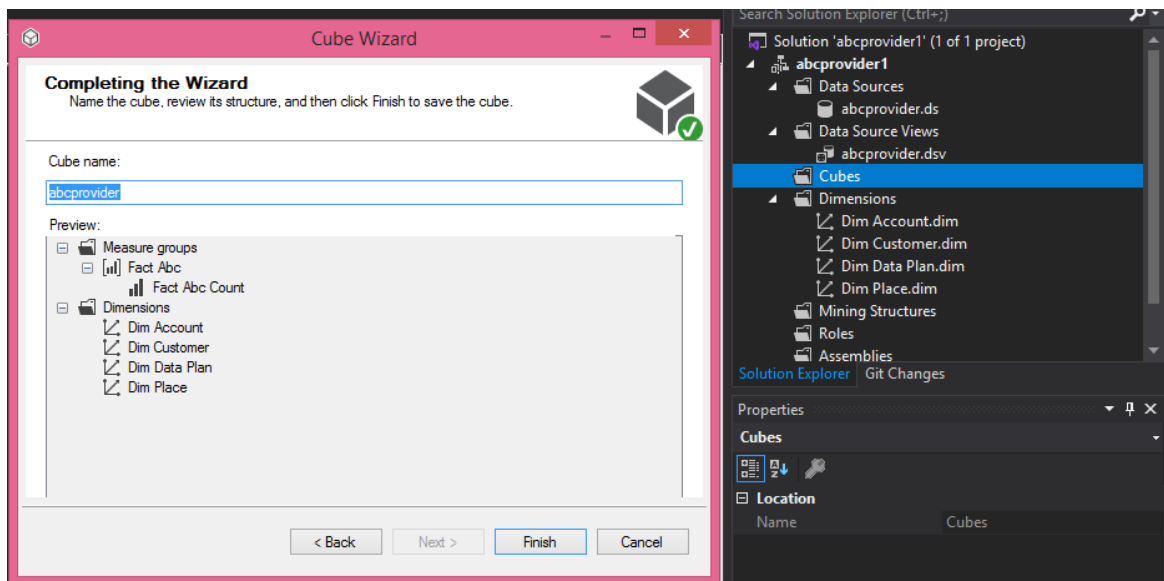
Creating the multi-dimensional model:

Selecting DT2 as data source

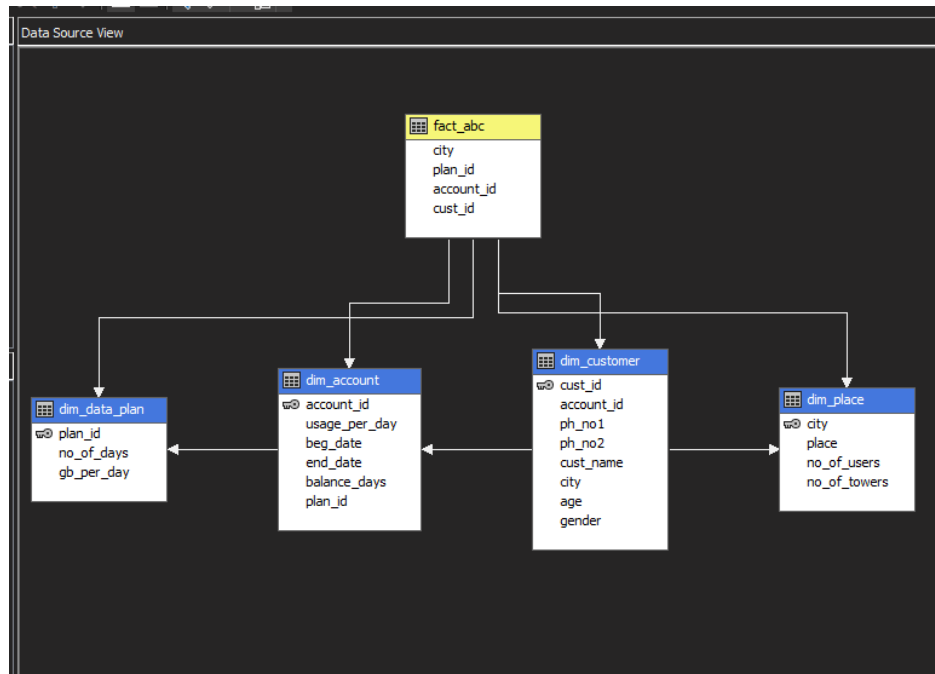




Creating the cube by specifying the dimensions:



Data Source view:



Building the solution:

```
Output
Show output from: Build
Build started...
----- Build started: Project: abcprovider1, Configuration: Development -----
Started Building Analysis Services project: Incremental ....
Dimension [Dim Account] : Create hierarchies in non-parent child dimensions.
Dimension [Dim Customer] : Create hierarchies in non-parent child dimensions.
Dimension [Dim Data Plan] : Create hierarchies in non-parent child dimensions.
Dimension [Dim Place] : Create hierarchies in non-parent child dimensions.
Database [abcprovider1] : The database has no Time dimension. Consider creating one.
Build complete -- 0 errors, 5 warnings
===== Build: 1 succeeded or up-to-date, 0 failed, 0 skipped =====
```

Deploying the solution:

Error List			
Entire Solution			
1 Error 5 Warnings 0 Messages Build + IntelliSense Search Error List			
Description	Project	File	Line
The project could not be deployed to the 'localhost' server because of the following connectivity problems:			
✖ A connection cannot be made. Ensure that the server is running. To verify or update the name of the target server, right-click on the project in Solution Explorer, select Project Properties, click on the Deployment tab, and then enter the name of the server.			0
⚠ Dimension [Dim Place] : Create hierarchies in non-parent child dimensions.			0
⚠ Dimension [Dim Data Plan] : Create hierarchies in non-parent child dimensions.			0
⚠ Dimension [Dim Customer] : Create hierarchies in non-parent child dimensions.			0
⚠ Database [abcprovider1] : The database has no Time dimension. Consider creating one.			0
⚠ Dimension [Dim Account] : Create hierarchies in non-parent child dimensions.			0

Output

Show output from: Build

```
----- Deploy started: Project: abcprovider1, Configuration: Development -----
Performing an incremental deployment of the 'abcprovider1' database to the 'localhost' server.
Generating deployment script...
Add Database abcprovider1
Process Database abcprovider1
Done
Error : The project could not be deployed to the 'localhost' server because of the following connectivity problems :
A connection cannot be made. Ensure that the server is running.
To verify or update the name of the target server, right-click on the project in Solution Explorer, select Project Properties, click on
Deploy complete -- 1 errors, 0 warnings
===== Build: 1 succeeded or up-to-date, 0 failed, 0 skipped =====
===== Deploy: 0 succeeded, 1 failed, 0 skipped =====
```

abcprovider1 Property Pages

Configuration: Active(Development) Platform: N/A Configuration Manager...

Configuration Properties

- Build
- Debugging
- Deployment

Options

Processing Option	Default
Transactional Deployment	False
Server Mode	Deploy Changes Only

Target

Server	localhost
Database	abcprovider1

Target

OK Cancel Apply