SQL komade

1. DML (Data Manipulation Language) komande

1.1. SELECT
```
SELECT *
FROM Product

SELECT Name, ProductNumber, Color
FROM Production.Product
WHERE DaysToManufacture = 2

SELECT ProductNumber, ListPrice
FROM Production.Product
WHERE ListPrice IN (52.64, 74.99, 147.14)

SELECT ProductID, LocationID, SUM (Quantity) AS TotalQuantity
FROM Production.ProductInventory
GROUP BY ProductID, LocationID
ORDER BY ProductID, LocationID DESC

SELECT P.ProductNumber, R.Comments
FROM Production.Product P
INNER JOIN Production.ProductReview R
ON P.ProductID = R.ProductID

SELECT LastName, FirstName
FROM Person.Person
WHERE Title =
        (SELECT DISTINCT Title
            FROM Person.Person
      WHERE Title IS NOT NULL)
ORDER BY LastName
```

1.2 INSERT
```
INSERT INTO Osobe
       (Prezime, Ime, Telefon, Email)
       VALUES
       ('Azemović', 'Jasmin', '061-000-000', 'jasmin@edu.fit.ba')

INSERT INTO Osobe
       VALUES
       ('Azemović', 'Jasmin', '061-000-000', 'jasmin@edu.fit.ba')

INSERT INTO Osobe
       VALUES
       ('Azemović', 'Jasmin', '061-000-000', 'jasmin@edu.fit.ba'),
       ('Azemović', 'Jasmin', '061-000-000', 'jasmin@edu.fit.ba')

INSERT INTO Osobe
       SELECT AP.LastName, AP.FirstName, APP.PhoneNumber, AEA.EmailAddress
       FROM AdventureWorks2014.Person.Person AS AP

SELECT Title + ','+FirstName + ' ' +LastName AS Customer
       INTO OsobeTitule
FROM AdventureWorks2014.Person.Person
```

1.3 UPDATE

```sql
UPDATE Person.Person
SET FirstName = 'New Ken', LastName = 'New Sánchez'
WHERE BusinessEntityID = 1


UPDATE Person.Person
SET FirstName = 'New Ken', LastName = 'New Sánchez'

UPDATE Production.Product
SET ListPrice = ListPrice * 1.1
FROM Production.ProductCategory AS PC
WHERE PC.Name = 'Bikes'
```

1.4 DELETE

```sql
DELETE FROM Firme
WHERE FirmaID = 99

DELETE FROM Firme

TRUNCATE TABLE Production.TransactionHistoryArchive
```

2. DDL (Data Definition Language) komande

2.1 CREATE

2.1.1 Kreiranje baza

```sql
CREATE DATABASE Prodaja


CREATE DATABASE Prodaja
ON
  (NAME = Prodaja_dat, FILENAME = 'C:\Data\Prodaja.mdf', SIZE = 100MB, MAXSIZE =
500MB, FILEGROWTH = 20% )
LOG ON
  (NAME = Prodaja_log, FILENAME = 'D:\Logs\Prodaja.ldf', SIZE = 20MB, MAXSIZE =
UNLIMITED, FILEGROWTH = 10MB );
```

2.1.2 Kreiranje tipa podatka

```sql
CREATE TYPE ProductNumber
      FROM nvarchar(20) NOT NULL;
GO
```

2.1.3 Kreiranje tabela

```sql
CREATE TABLE Kupci
(
  KupacID int IDENTITY(1,1) CONSTRAINT PK_Kupac PRIMARY KEY,
  Prezime nvarchar(30) NOT NULL,
  Ime nvarchar(30) NOT NULL,
  Telefon nvarchar (30) NULL,
  Email nvarchar (100) NOT NULL CONSTRAINT UQ_Email UNIQUE,
  DatumRodjenja date NOT NULL,
  GradID int NOT NULL CONSTRAINT FK_Kupac_Gradovi FOREIGN KEY REFERENCES Gradovi
(GradID),
  GodinaRodjenja AS DATEPART (year, DatumRodjenja) PERSISTED
);

CREATE TABLE #Squares
(
  NumberID int PRIMARY KEY,
  NumberSquared int
);
```

2.1.4 Kreiranje VIEW-ova

```sql
CREATE VIEW HumanResources.EmployeeList
--WITH ENCRYPTION
AS
      SELECT E.BusinessEntityID, P.LastName, P.FirstName
      FROM Person.Person AS P
      INNER JOIN HumanResources.Employee AS E
      ON P.BusinessEntityID = E.BusinessEntityID
GO
```

2.1.5 Kreiranje procedura

```sql
CREATE PROCEDURE Sales.OrdersByDueDateAndStatus_2
--WITH ENCRYPTION
AS
SELECT SalesOrderID, OrderDate, CustomerID
FROM Sales.SalesOrderHeader
GO

CREATE PROCEDURE Sales.OrdersByDueDateAndStatus
      @DueDate datetime, @Status tinyint = 5
AS
SELECT SalesOrderID, OrderDate, CustomerID
FROM Sales.SalesOrderHeader
WHERE DueDate = @DueDate
AND [Status] = @Status;
GO

CREATE PROCEDURE Sales.GetSalesPersonNames
AS
BEGIN
  SELECT SP.BusinessEntityID, P.LastName, P.FirstName
  FROM Sales.SalesPerson AS SP
  INNER JOIN Person.Person AS P
  ON SP.BusinessEntityID = P.BusinessEntityID
  WHERE SP.TerritoryID IS NOT NULL
  ORDER BY sp.BusinessEntityID
END;
```

2.1.6 Kreiranje tigera

```sql
CREATE TRIGGER Preventiva
ON DATABASE
FOR DROP_TABLE, ALTER_TABLE, DROP_VIEW
AS
    PRINT 'Brisanje i izmjena nad objetima nije dozvoljena!'
    ROLLBACK ;

CREATE TRIGGER TR_ProductReview_Update
ON Production.ProductReview
AFTER UPDATE AS
BEGIN
    SET NOCOUNT ON;
    UPDATE PR
    SET PR.ModifiedDate = SYSDATETIME()
    FROM Production.ProductReview AS PR
    INNER JOIN inserted AS I
    ON I.ProductReviewID = PR.ProductReviewID;
END;
```

2.1.7 Kreiranje indexa

```sql
CREATE NONCLUSTERED INDEX IX_Book_Publisher
  ON dbo.Book (PublisherID, ReleaseDate DESC)
  INCLUDE (Title);
GO
```

2.1.8 Kreiranje logina i usera

```sql
/* Windows lokalni ili domenski nalog*/
CREATE LOGIN [X3\Jasmin]
FROM WINDOWS
WITH DEFAULT_DATABASE = AdventureWorks2014

/* SQL Server login*/
CREATE LOGIN Selver
WITH PASSWORD = 'Pa$$w0rd',
DEFAULT_DATABASE = pubs

CREATE USER SuperUser FOR LOGIN [X3\Jasmin]

CREATE USER Denis FOR LOGIN [FIT\Denis]
WITH DEFAULT_SCHEMA = profesori
```

2.2. ALTER

2.2.1 Izmjena na tabelama

```sql
ALTER TABLE Kupci
ADD Email nvarchar(100) NOT NULL;
GO

ALTER TABLE Kupci
DROP COLUMN Telefon;
GO
```

2.2.2 Izmjena na VIEW-ovima

```sql
ALTER VIEW HumanResources.EmployeeList
AS
    SELECT E.BusinessEntityID, P.LastName, P.FirstName, E.Gender, E.HireDate
    FROM Person.Person AS P
    INNER JOIN HumanResources.Employee AS E
    ON P.BusinessEntityID = E.BusinessEntityID
GO
```

2.2.3 Imjena na procedurama

```sql
ALTER PROCEDURE Sales.GetSalesPersonNames
AS
BEGIN
  SELECT SP.BusinessEntityID, P.LastName, P.FirstName
  FROM Sales.SalesPerson AS SP
  INNER JOIN Person.Person AS P
  ON SP.BusinessEntityID = P.BusinessEntityID
  WHERE SP.TerritoryID IS NOT NULL
  AND SP.SalesQuota IS NOT NULL
  ORDER BY sp.BusinessEntityID
END;
```

2.2.4 Izmjena na indexima

```sql
ALTER INDEX IX_Book_Publisher ON dbo.Book
  DISABLE;
GO

ALTER INDEX IX_Book_Publisher ON dbo.Book
  REBUILD;
GO
```

2.2.5 Izmjena logina

```sql
ALTER LOGIN Selver WITH PASSWORD = 'NewPa$$w0rd'
```

2.3. DROP

2.3.1 Brisanje baze
```
DROP DATABASE Prodaja
GO
```

2.3.2 Brisanje tabele
```
DROP TABLE Kupci
GO
```

2.3.3 Brisaje VIEW-a
```
DROP VIEW HumanResources.EmployeeList
GO
```

2.3.4 Brisanje procedure
```
DROP PROCEDURE Sales.GetSalesPersonNames
GO
```

2.3.5 Brisanje indexa
```
DROP INDEX IX_Book_Publisher ON dbo.Book
GO
```

2.3.6 Brisanje logina i usera
```
DROP LOGIN [X3\Jasmin]

DROP USER [X3\Jasmin]
```