

In the name of God  
Database Lab  
Spring 2016

Iman TABRIZIAN

April 6, 2016

Date Performed: March 2, 2016  
Partners: Parham Alvani

## 1 Results and Conclusions

1. First query to create table schema:

```
CREATE TABLE "persons-1"  
(  
  P_Id int identity(1,1),  
  LastName varchar(255),  
  FirstName varchar(255),  
  Address varchar(255),  
  City varchar(255),  
  primary key (FirstName, LastName));
```

- (a) 

```
SELECT * FROM "persons-1" ORDER BY LastName ASC;
```
- (b) 

```
INSERT INTO "persons-1" (LastName, FirstName, Address, City)  
  VALUES ('Hansen', 'Ola', 'Timoteivn 10', 'Sandnes');  
INSERT INTO "persons-1" (LastName, FirstName, Address, City)  
  VALUES ('Svendson', 'Tove', 'Borgvn 23', 'Sandnes');  
INSERT INTO "persons-1" (LastName, FirstName, Address, City)  
  VALUES ('Pettersen', 'Kari', 'Storgt 20', 'Stavanger');  
INSERT INTO "persons-1" (LastName, FirstName, Address, City)  
  VALUES ('Nilsen', 'Tom', 'Vingvn 23', 'Stavanger');  
SELECT * FROM "persons-1";
```
- (c) 

```
BEGIN TRANSACTION t1  
  
UPDATE "persons-1" SET phone_number='0019392' where P_id=1;  
UPDATE "persons-1" SET phone_number='0019392' where P_id=2;  
UPDATE "persons-1" SET phone_number='0019392' where P_id=3;
```

```

UPDATE "persons-1" SET phone_number='0019392' where P_id=4;

COMMIT TRANSACTION t1;

SELECT * FROM "persons-1";
(d)      SELECT FirstName,LastName,Full_address = (CASE P_id
        WHEN 1 THEN 'Jomhori'
        WHEN 2 THEN 'Enghelab'
        WHEN 3 THEN 'Felestin'
        ELSE 'Ferdowsi'
end) FROM "persons-1";
(e)      SET identity_insert "persons-1" on;
        BEGIN TRANSACTION t1
        INSERT INTO "persons-1"
            (P_id, FirstName, LastName, City,Address, phone_number) VALUES
            (7,'Tjessem','Jakob', 'Nissestien 67', 'Sandnes','0017673276');
        SELECT * FROM "persons-1" ORDER BY FirstName ASC;
        COMMIT TRANSACTION t1;
(f)      DECLARE @temp int
        SELECT @temp = max(P_id) FROM "persons-1";
        WHILE @temp > 0 BEGIN
            PRINT 'Okay';
            SET @temp=@temp-1;
        END
(g)      DECLARE @temp int
        SELECT @temp = max(P_id) FROM "persons-1";
        WHILE @temp > 0 begin
            print 'Okay';
            SET @temp=@temp-1;
        END
(h)      SET identity_insert "persons-1" on;
        DELETE FROM "persons-1" where FirstName='taylor';
        DECLARE @temp nvarchar(255);
        SELECT @temp = phone_number FROM "persons-1" where Firstname='Tjessem';
        DECLARE @casted int;
        SET @casted = cast(@temp as int);
        IF @temp < 0011234567
        INSERT INTO "persons-1" (P_id,FirstName,Lastname, Address,City,phone_number)
        VALUES (6,'taylor','Jackson','Nisseisten87','Sandnes','0011234567');
        ELSE
        INSERT INTO "persons-1" (P_id, FirstName, Lastname, Address, City, phone_number)
        VALUES (8,'taylor','Jackson','Nisseisten87','Sandnes','0011234567');
        SELECT * FROM "persons-1";

```

## 2. Creating table schema

```
CREATE TABLE "students-1"(  
    name varchar(255),  
    student_id int primary key,  
    grade int  
);
```

(a) Adding data to table:

```
DELETE FROM "students-1";  
INSERT INTO "students-1" (name,student_id,grade) VALUES ('R1',8831047,12);  
INSERT INTO "students-1" (name,student_id,grade) VALUES ('R2',8831043,10);  
INSERT INTO "students-1" (name,student_id,grade) VALUES ('R3',8831031,15);  
INSERT INTO "students-1" (name,student_id,grade) VALUES ('R4',8831051,16);  
INSERT INTO "students-1" (name,student_id,grade) VALUES ('R1',8831012,11);  
SELECT * FROM "students-1";
```

(b) Achieving result:

```
DECLARE @temp table(  
    nameb varchar(255),  
    student_idb int,  
    new_grade int,  
    old_grade int  
);  
UPDATE "students-1" SET "students-1".grade = "students-1".grade + 2 output  
    inserted.student_id,inserted.grade,deleted.grade into @temp where '  
SELECT * FROM @temp;
```