فاز دوم پروژه پایگاه داده

Query - Stored Procedure - Data Layer

Ali Karimi   علی کریمی

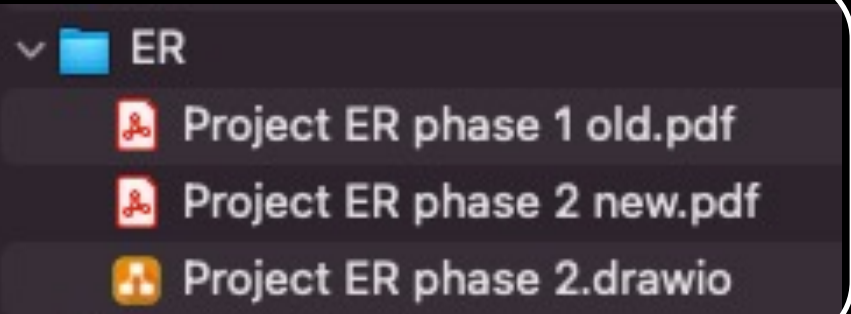Mahda Ashrafi   مهدا اشرفی

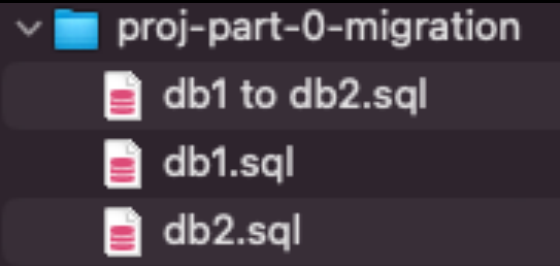Mohammad Amiri   محمد امیری

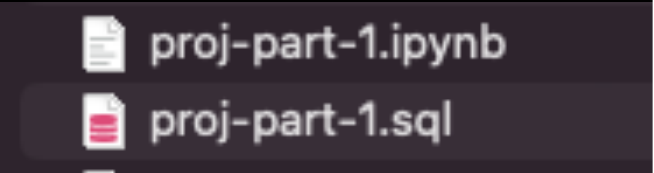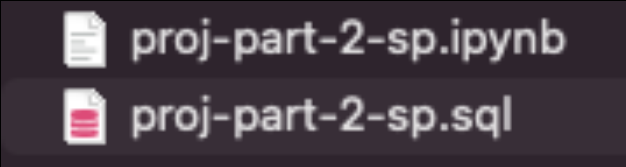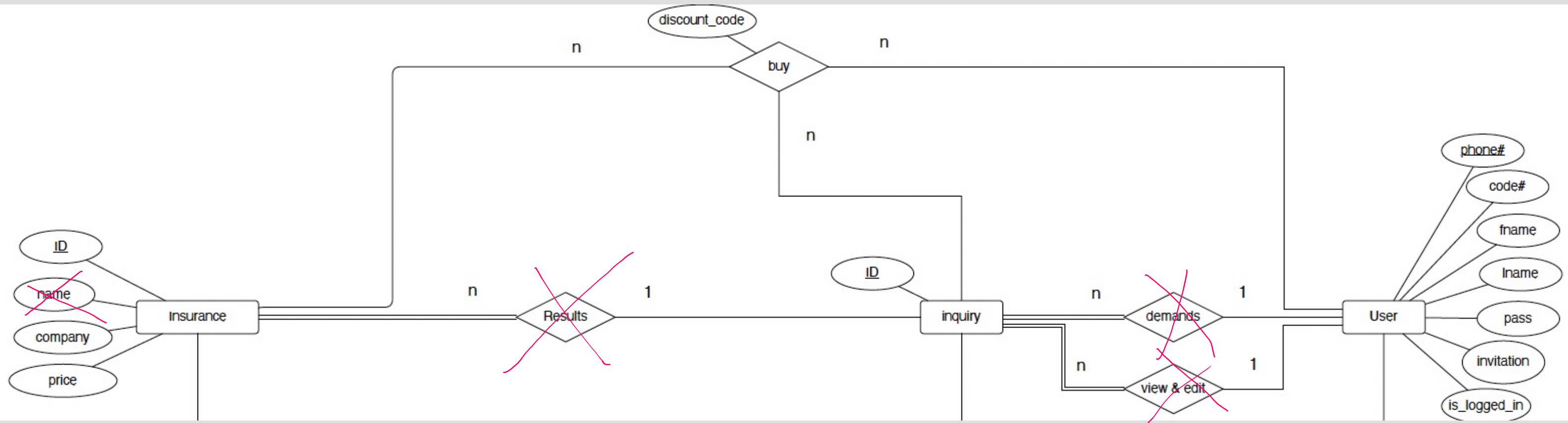روابط Results, demands, view & edit حذف شده چون در لایه اپلیکیشن پیاده سازی میشوند
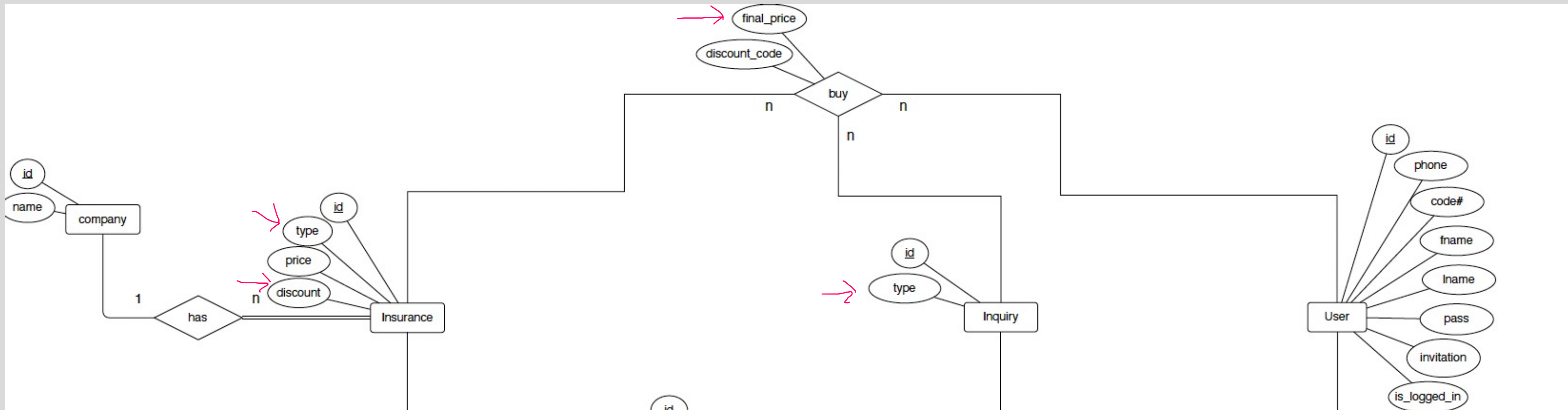
برای inquiry و insurance یک property به اسم type اضافه شده که تایپ درخواست و بیمه را نشان میدهد

یک Entity جدید برای Company ایجاد شده

برای Insurance یک property جدید به اسم discount که درصد تخفیف بیمه را نشان میدهد اضافه شده

برای رابطه Bye یک property جدید به اسم final_price که قیمت نهایی اضافه شده

چون هر بیمه قیمت ثابتی دارد که در Insurance هست و بسته به درخواست و اطلاعاتی که کاربر وارد میکند قیمت تغییر میکند ولی در آخر که خریداری میکند قیمت خریداری شده برای آن شخص با آن اطلاعات در final_price ذخیره میشود
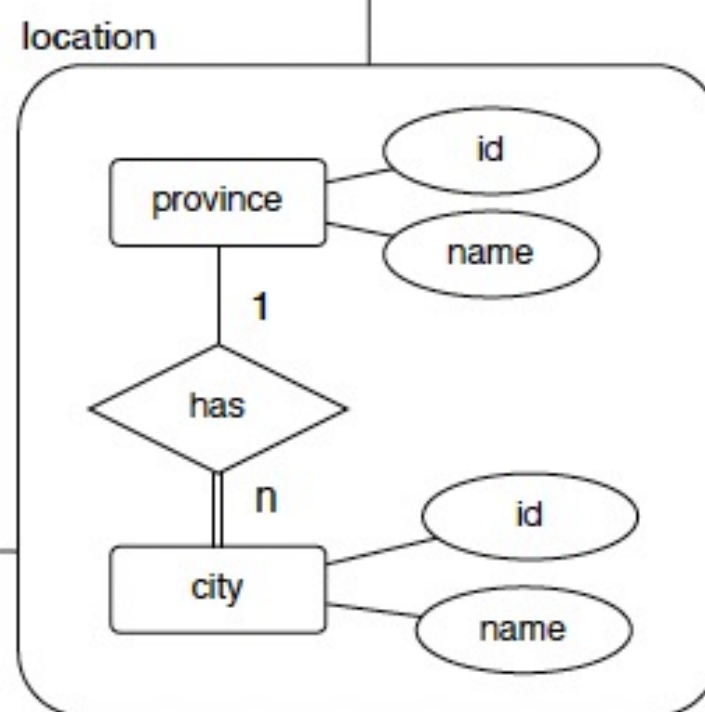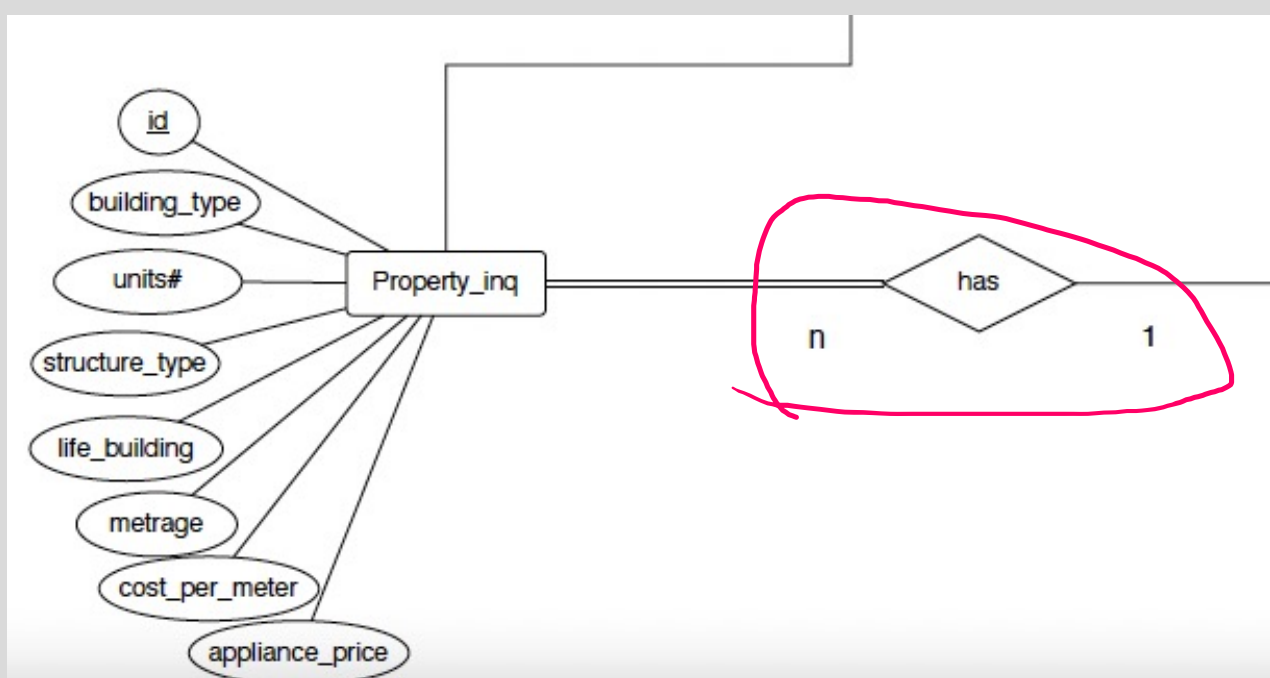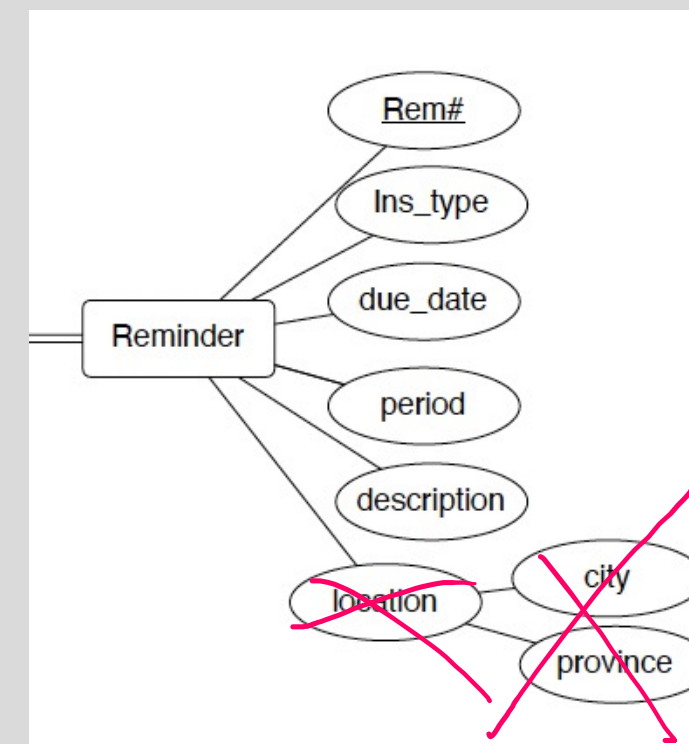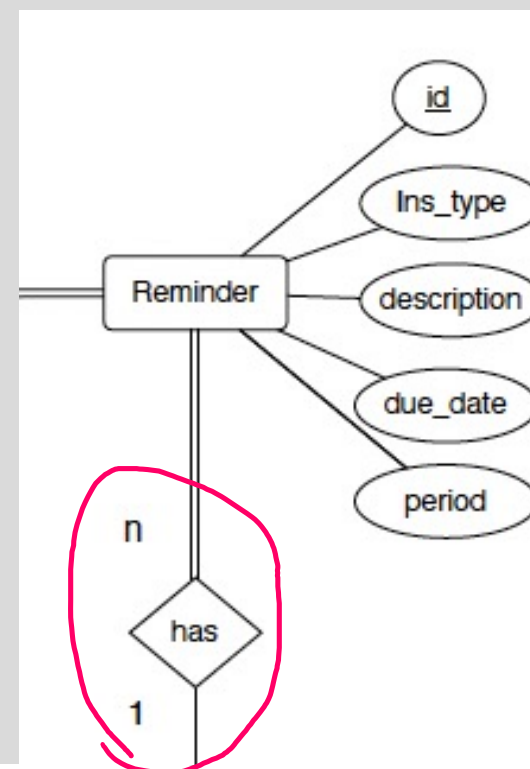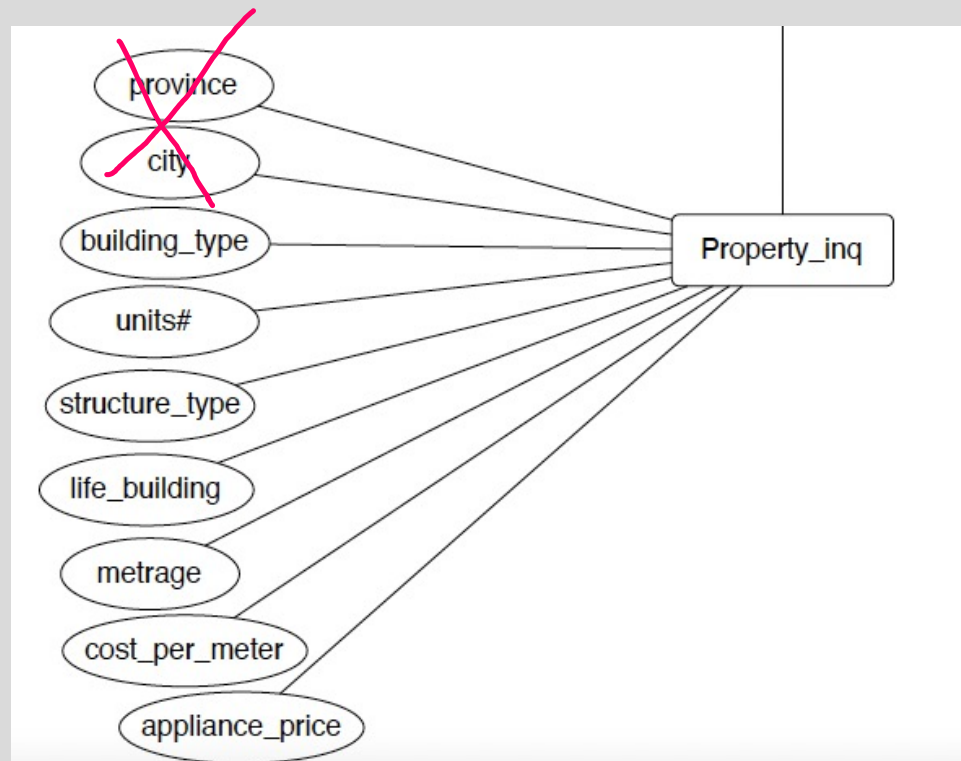
دو Entity جدید برای شهر و استان اضافه شده و
در جایی که به ان نیاز بوده از رابطه has استفاده شده
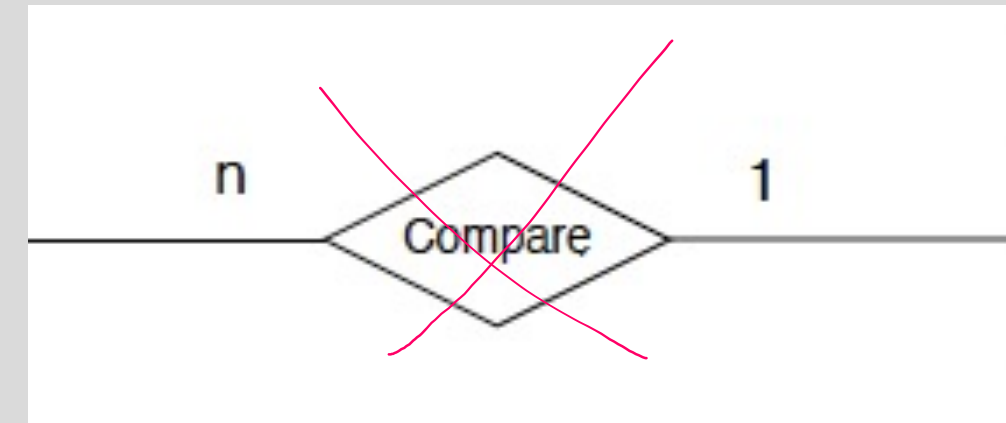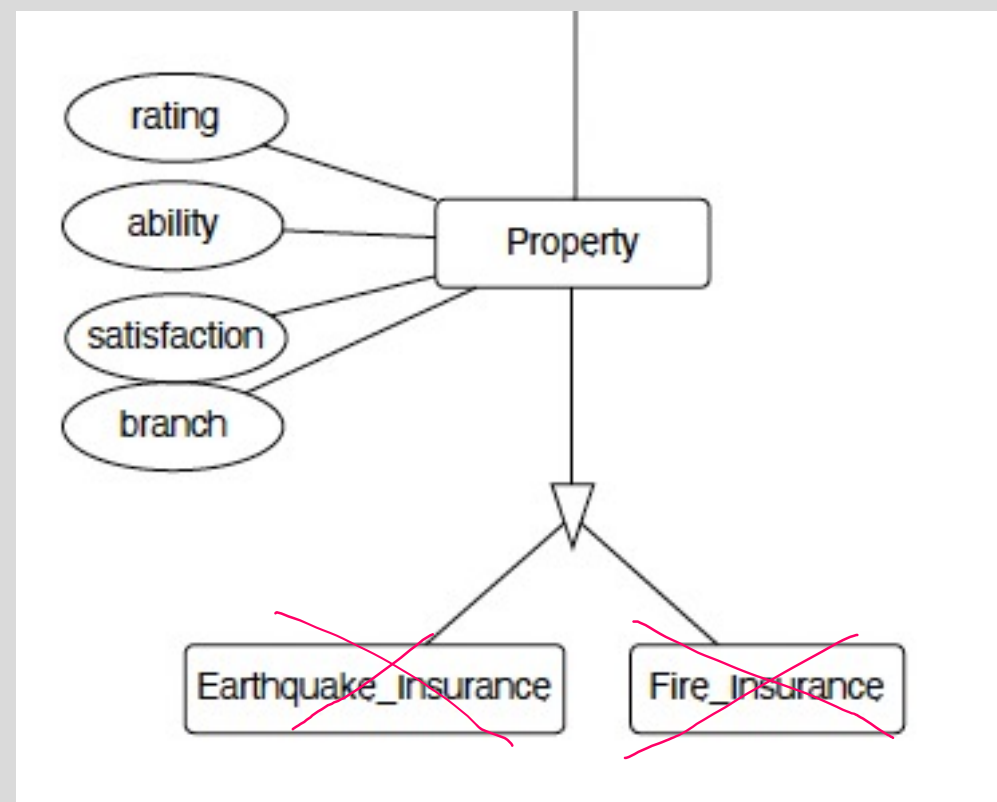
رابطه compare حذف شده چون در لایه اپلیکیشن پیاده سازی میشود

همچنین ۲ انتیتی earthquake_insurance و fire_insurance حذف شده
چون با type معلوم میشود و نیازی به ۲ جدول جدید نیست

Part 1 Q 1

```sql
-- 1
INSERT INTO [User_]
( [id], [phone], [code], [fname], [lname], [pass], [invatation], [is_logged_in])
VALUES
(1001, '09022226700', 'b00003ki', 'Zohre', 'Rasouli', 'pass3', 8, 1),
(1002, '09022221155', 'c0000ddd', 'Elham', 'Niyayeshi', 'pass4', 4, 1),
(1003, '09022222233', 'd0000eee', 'Reza', 'Maleki', 'pass5', 9, 1),
(1004, '09022220044', 'f0000kkk', 'Morteza', 'Molayee', 'pass6', 10, 1),
(1005, '09022220022', 'e0000jjj', 'Omid', 'Ahmadi', 'pass7', 10, 1),
(1006, '09022224466', 's0000bbb', 'Mohammad', 'Sajjadi', 'pass8', 10, 1)

SELECT * FROM [User_];
GO
```

	id	phone	code	fname	lname	pass	invatation	is_logged_in
1	11	09026743937	r00nh2lt	Ali	Karimi	pass	5	1
2	12	09018110650	ygupw435	Mohammad	Amiri	pass	8	1
3	13	09129615681	tmvx37i0	Mahda	Ashrafi	pass	7	1
4	14	09371752150	qvri9z9g	Hossein	Mortazavi	pass	10	0
5	15	09025807894	13czlwwg	Helma	Akhgar	pass	4	1
6	16	09374787030	pye761w9	Roqaye	Azizi	pass	7	1
7	17	09308687695	934bo6me	Kasra	Siyavashpoor	pass	3	1
8	18	09027061854	yca0mvyl	Nikan	Norafkan	pass	8	0
9	19	09509879142	dul70p8r	Erfan	Riyazati	pass	10	1
10	20	09503672963	hr2kyfej	Reza	Najafi	pass	10	1
11	1001	09022226700	b00003ki	Zohre	Rasouli	pass3	8	1
12	1002	09022221155	c0000ddd	Elham	Niyayeshi	pass4	4	1
13	1003	09022222233	d0000eee	Reza	Maleki	pass5	9	1
14	1004	09022220044	f0000kkk	Morteza	Molayee	pass6	10	1
15	1005	09022220022	e0000jjj	Omid	Ahmadi	pass7	10	1
16	1006	09022224466	s0000bbb	Mohammad	Sajjadi	pass8	10	1

Part 1 Q 2 Query
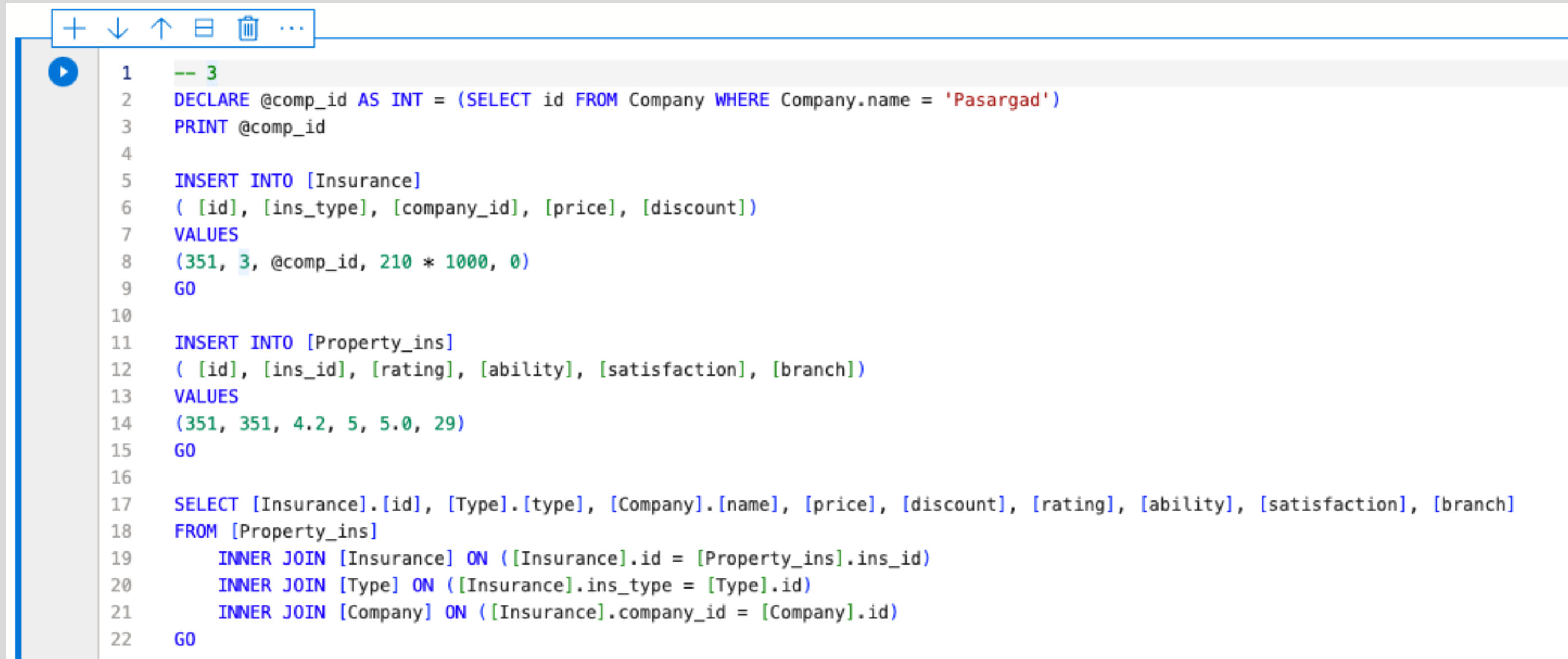
```sql
-- 2
INSERT INTO [Insurance]
( [id], [ins_type], [company_id], [price], [discount])
VALUES
(451, 4, 1, 210 * 1000, 0),
(452, 4, 10, 220 * 1000, 0),
(453, 4, 3, 230 * 1000, 0),
(454, 4, 14, 240 * 1000, 0),
(455, 4, 20, 250 * 1000, 0)
GO

INSERT INTO [Property_ins]
( [id], [ins_id], [rating], [ability], [satisfaction], [branch])
SELECT *
FROM (VALUES
    (451, 451, 4.2, 5, 5.0, 10),
    (452, 452, 4.2, 5, 4.0, 30),
    (453, 453, 3.9, 5, 4.1, 7),
    (454, 454, 4.0, 5, 4.3, 5),
    (455, 455, 3.7, 4, 3.0, 30)
) AS Temp ( [id], [ins_id], [rating], [ability], [satisfaction], [branch])
ORDER BY [rating]
GO

SELECT [Insurance].[id], [Type].[type], [Company].[name], [price], [discount], [rating], [ability], [satisfaction], [branch]
FROM [Property_ins]
    INNER JOIN [Insurance] ON ([Insurance].id = [Property_ins].ins_id)
    INNER JOIN [Type] ON ([Insurance].ins_type = [Type].id)
    INNER JOIN [Company] ON ([Insurance].company_id = [Company].id)
GO
```

Part 1 Q 2 Result

	id	type	name	price	discount	rating	ability	satisfaction	branch
1	301	Fire	Taavon	210000	0	4.2	5	5.0	29
2	302	Fire	Asia	220000	0	4.2	5	4.0	99
3	303	Fire	Razi	230000	0	3.9	5	4.1	47
4	304	Fire	Parsian	240000	0	4.0	5	4.3	62
5	305	Fire	Dey	250000	0	3.7	4	3.0	49
6	401	Earthquake	Iran	210000	0	4.2	5	5.0	10
7	402	Earthquake	Dey	220000	0	4.2	5	4.0	30
8	403	Earthquake	Parsian	230000	0	3.9	5	4.1	7
9	404	Earthquake	Saman	240000	0	4.0	5	4.3	5
10	405	Earthquake	Asmari	250000	0	3.7	4	3.0	30
11	451	Earthquake	Iran	210000	0	4.2	5	5.0	10
12	452	Earthquake	Dey	220000	0	4.2	5	4.0	30
13	453	Earthquake	Parsian	230000	0	3.9	5	4.1	7
14	454	Earthquake	Saman	240000	0	4.0	5	4.3	5
15	455	Earthquake	Asmari	250000	0	3.7	4	3.0	30

Part 1 Q 3 Query
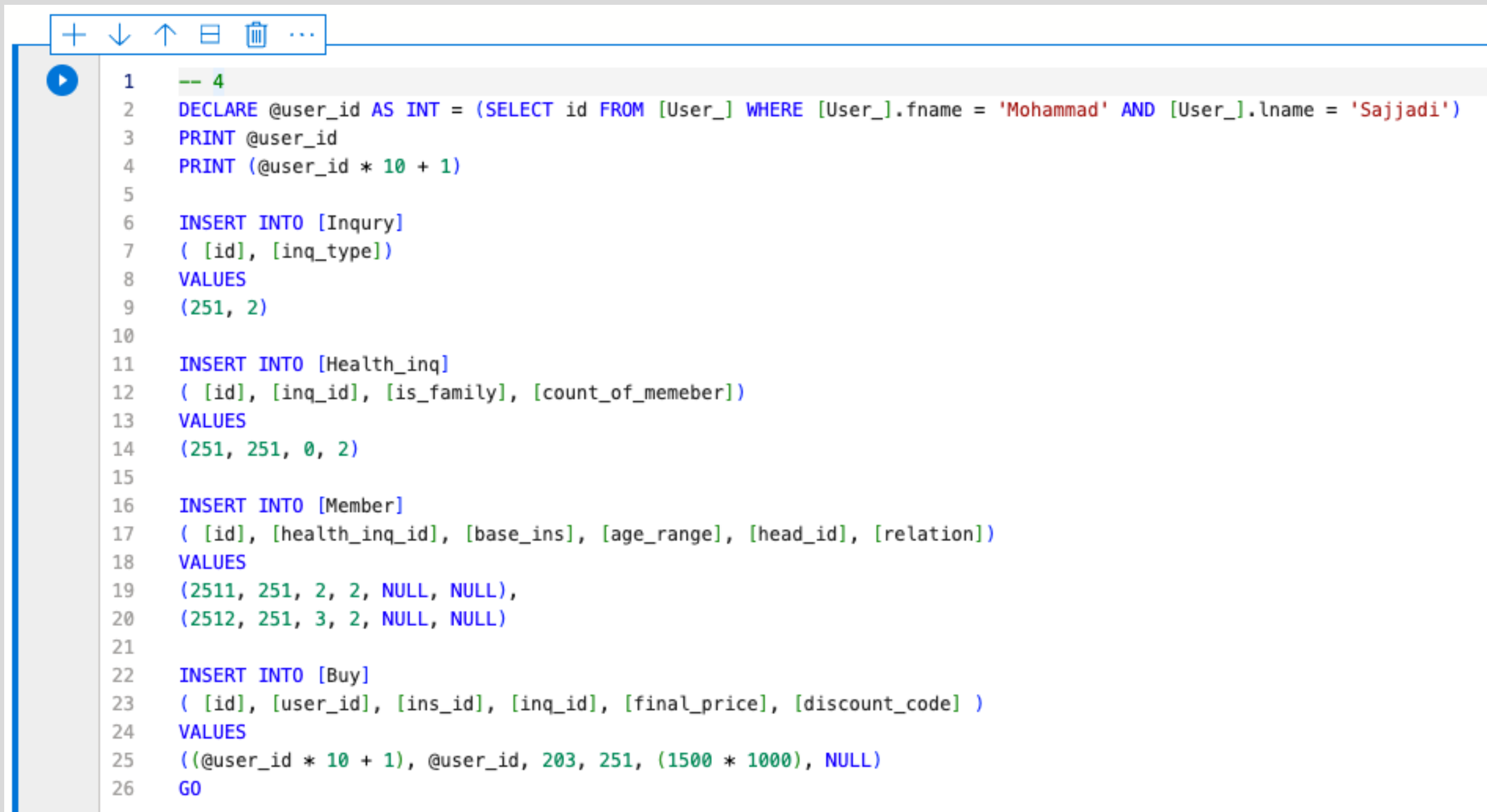
```sql
-- 3
DECLARE @comp_id AS INT = (SELECT id FROM Company WHERE Company.name = 'Pasargad')
PRINT @comp_id

INSERT INTO [Insurance]
( [id], [ins_type], [company_id], [price], [discount])
VALUES
(351, 3, @comp_id, 210 * 1000, 0)
GO

INSERT INTO [Property_ins]
( [id], [ins_id], [rating], [ability], [satisfaction], [branch])
VALUES
(351, 351, 4.2, 5, 5.0, 29)
GO

SELECT [Insurance].[id], [Type].[type], [Company].[name], [price], [discount], [rating], [ability], [satisfaction], [branch]
FROM [Property_ins]
    INNER JOIN [Insurance] ON ([Insurance].id = [Property_ins].ins_id)
    INNER JOIN [Type] ON ([Insurance].ins_type = [Type].id)
    INNER JOIN [Company] ON ([Insurance].company_id = [Company].id)
GO
```

Part 1 Q 3 Result

	id	type	name	price	discount	rating	ability	satisfaction	branch
1	301	Fire	Taavon	210000	0	4.2	5	5.0	29
2	302	Fire	Asia	220000	0	4.2	5	4.0	99
3	303	Fire	Razi	230000	0	3.9	5	4.1	47
4	304	Fire	Parsian	240000	0	4.0	5	4.3	62
5	305	Fire	Dey	250000	0	3.7	4	3.0	49
6	351	Fire	Pasargad	210000	0	4.2	5	5.0	29
7	401	Earthquake	Iran	210000	0	4.2	5	5.0	10
8	402	Earthquake	Dey	220000	0	4.2	5	4.0	30
9	403	Earthquake	Parsian	230000	0	3.9	5	4.1	7
10	404	Earthquake	Saman	240000	0	4.0	5	4.3	5
11	405	Earthquake	Asmari	250000	0	3.7	4	3.0	30
12	451	Earthquake	Iran	210000	0	4.2	5	5.0	10
13	452	Earthquake	Dey	220000	0	4.2	5	4.0	30
14	453	Earthquake	Parsian	230000	0	3.9	5	4.1	7
15	454	Earthquake	Saman	240000	0	4.0	5	4.3	5
16	455	Earthquake	Asmari	250000	0	3.7	4	3.0	30

Part 1 Q 4 Query

```sql
-- 4
DECLARE @user_id AS INT = (SELECT id FROM [User_] WHERE [User_].fname = 'Mohammad' AND [User_].lname = 'Sajjadi')
PRINT @user_id
PRINT (@user_id * 10 + 1)

INSERT INTO [Inqury]
( [id], [inq_type])
VALUES
(251, 2)

INSERT INTO [Health_inq]
( [id], [inq_id], [is_family], [count_of_memeber])
VALUES
(251, 251, 0, 2)

INSERT INTO [Member]
( [id], [health_inq_id], [base_ins], [age_range], [head_id], [relation])
VALUES
(2511, 251, 2, 2, NULL, NULL),
(2512, 251, 3, 2, NULL, NULL)

INSERT INTO [Buy]
( [id], [user_id], [ins_id], [inq_id], [final_price], [discount_code] )
VALUES
((@user_id * 10 + 1), @user_id, 203, 251, (1500 * 1000), NULL)
GO
```

Part 1 Q 5 Query

```sql
-- 5
DECLARE @reza_maleki_code AS NVARCHAR(8) = ( SELECT code FROM [User_]  WHERE [User_].fname = 'Reza' AND [User_].lname = 'Maleki')
PRINT @reza_maleki_code

DECLARE @omid_ahmadi_id AS INT =  (SELECT id FROM [User_] WHERE [User_].fname = 'Omid' AND [User_].lname = 'Ahmadi');
PRINT @omid_ahmadi_id

INSERT INTO [Inqury]
( [id], [inq_type])
VALUES
(151, 1)
INSERT INTO [Life_inq]
( [id], [inq_id], [birth_date], [contract_period], [payment_way], [monthly_payment], [premiums_increase], [capital_increase], [death_coefficient])
VALUES
(151, 151, '1400-10-10', 5, 3, (50 * 1000), 25, 10, 20)

INSERT INTO [Buy]
( [id], [user_id], [ins_id], [inq_id], [final_price], [discount_code] )
VALUES
((@omid_ahmadi_id * 10 + 1), @omid_ahmadi_id, 101, 151, (1500 * 1000), @reza_maleki_code);
SELECT * FROM [Buy];

SELECT * FROM [User_] WHERE [User_].fname = 'Reza' AND [User_].lname = 'Maleki';

UPDATE [User_]
SET invatation = invatation - 1
WHERE [User_].fname = 'Reza' AND [User_].lname = 'Maleki';

SELECT * FROM [User_] WHERE [User_].fname = 'Reza' AND [User_].lname = 'Maleki';
GO
```

Part 1 Q 5 Result

d0000eee

1005
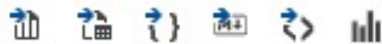
	id	user_id	ins_id	inq_id	final_price	discount_code
1	111	11	101	101	1500000	NULL
2	112	11	201	201	1500000	NULL
3	113	11	401	401	1500000	NULL
4	121	12	102	102	1500000	NULL
5	122	12	301	301	1500000	NULL
6	123	12	402	402	1500000	NULL
7	131	13	101	103	1500000	NULL
8	132	13	203	202	900000	NULL
9	133	13	305	302	1500000	NULL
10	134	13	404	403	1500000	NULL
11	151	15	302	303	500000	NULL
12	152	15	302	306	500000	NULL
13	153	15	302	307	500000	NULL
14	161	16	303	304	500000	NULL
15	181	18	201	203	500000	NULL
16	182	18	304	305	500000	NULL
17	191	19	206	204	1500000	NULL
18	192	19	207	205	1500000	NULL
19	10051	1005	101	151	1500000	d0000eee
20	10061	1006	203	251	1500000	NULL
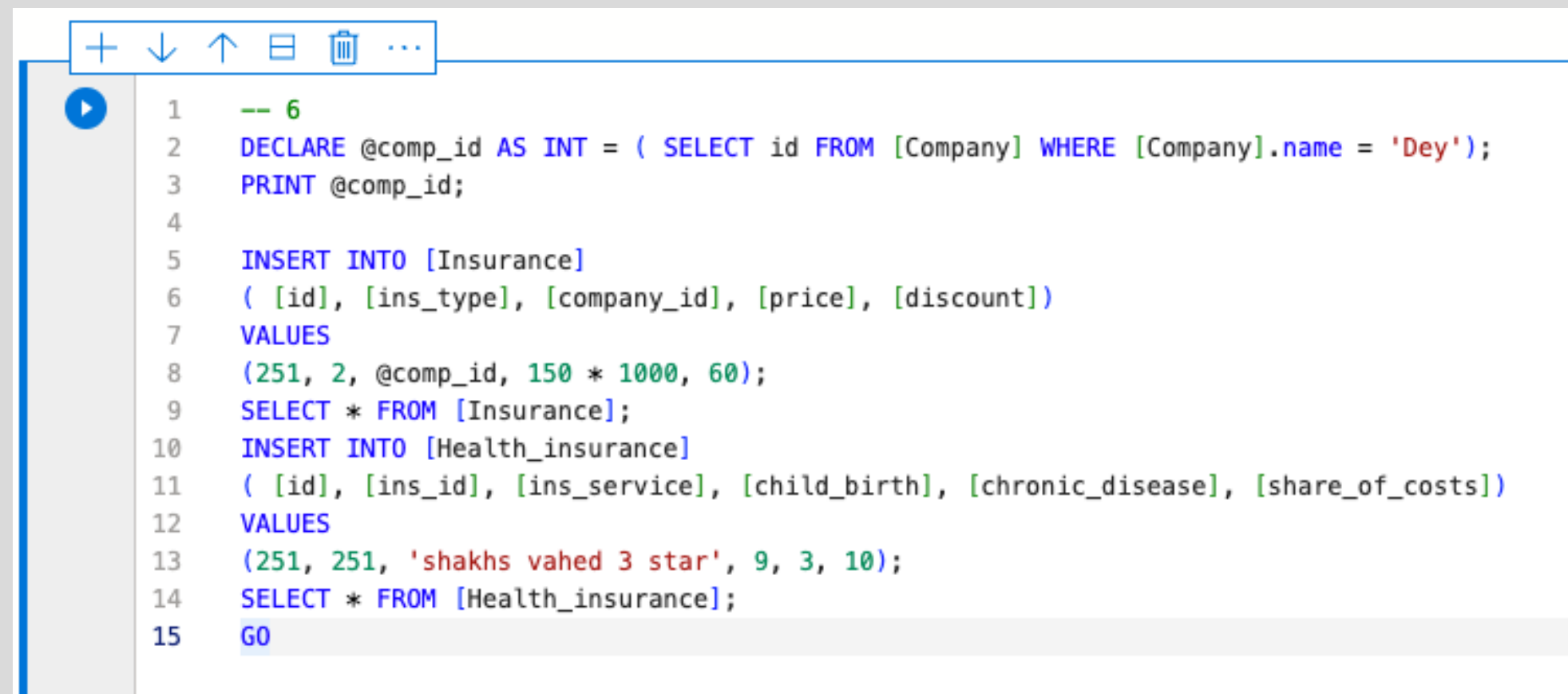
	id	phone	code	fname	lname	pass	invatation	is_logged_in
1	1003	09022222233	d0000eee	Reza	Maleki	pass5	9	1

	id	phone	code	fname	lname	pass	invatation	is_logged_in
1	1003	09022222233	d0000eee	Reza	Maleki	pass5	8	1

Part 1 Q 6 Query

```sql
-- 6
DECLARE @comp_id AS INT = ( SELECT id FROM [Company] WHERE [Company].name = 'Dey');
PRINT @comp_id;

INSERT INTO [Insurance]
( [id], [ins_type], [company_id], [price], [discount])
VALUES
(251, 2, @comp_id, 150 * 1000, 60);
SELECT * FROM [Insurance];
INSERT INTO [Health_insurance]
( [id], [ins_id], [ins_service], [child_birth], [chronic_disease], [share_of_costs])
VALUES
(251, 251, 'shakhs vahed 3 star', 9, 3, 10);
SELECT * FROM [Health_insurance];
GO
```
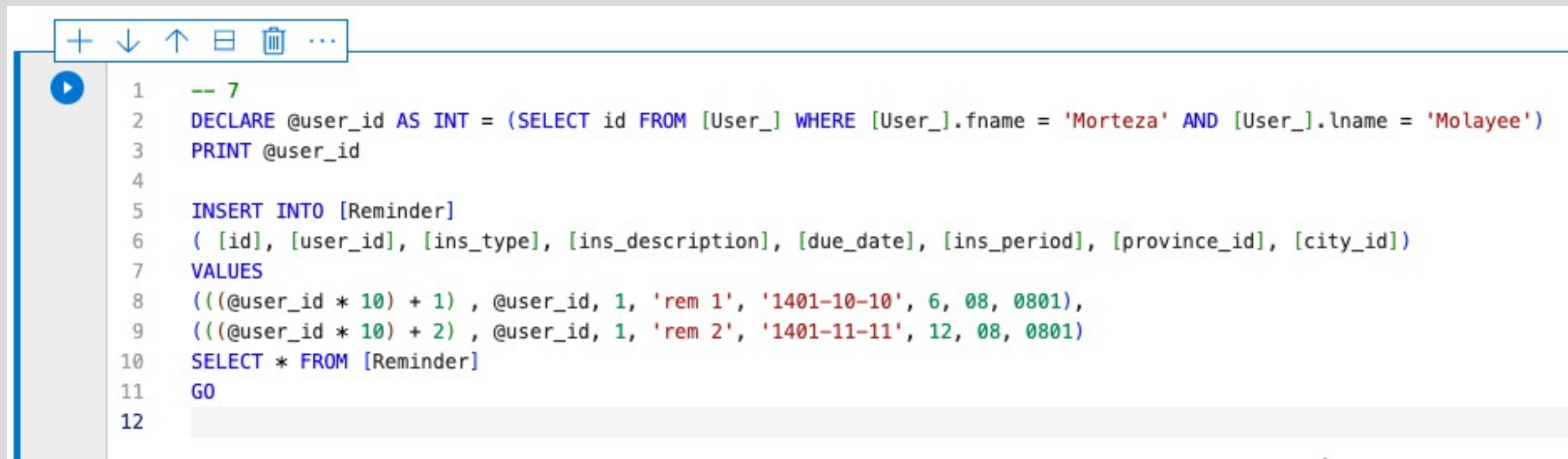
Part 1 Q 6 Result

10

	id	ins_type	company_id	price	discount
10	205	2	14	190000	0
11	206	2	14	200000	0
12	207	2	14	210000	0
13	251	2	10	150000	60
14	301	3	19	210000	0
15	302	3	2	220000	0
16	303	3	5	230000	0
17	304	3	3	240000	0
18	305	3	10	250000	0
19	351	3	8	210000	0
20	401	4	1	210000	0
21	402	4	10	220000	0
22	403	4	3	230000	0
23	404	4	14	240000	0
24	405	4	20	250000	0
25	451	4	1	210000	0
26	452	4	10	220000	0
27	453	4	3	230000	0
28	454	4	14	240000	0
29	455	4	20	250000	0

	id	ins_id	ins_service	child_birth	chronic_disease	share_of_costs
1	201	201	shakhs vahed 3 star	9	3	10
2	202	202	shakhs vahed 4 star	9	3	10
3	203	203	shakhs vahed 4 star plus	9	3	10
4	204	204	shakhs vahed 5 star	9	3	10
5	205	205	tarh sero	9	3	10
6	206	206	tarh sepidar	9	3	10
7	207	207	tarh afra	9	3	10
8	251	251	shakhs vahed 3 star	9	3	10

Part 1 Q 7 Query

```sql
-- 7
DECLARE @user_id AS INT = (SELECT id FROM [User_] WHERE [User_].fname = 'Morteza' AND [User_].lname = 'Molayee')
PRINT @user_id

INSERT INTO [Reminder]
( [id], [user_id], [ins_type], [ins_description], [due_date], [ins_period], [province_id], [city_id])
VALUES
(((@user_id * 10) + 1) , @user_id, 1, 'rem 1', '1401-10-10', 6, 08, 0801),
(((@user_id * 10) + 2) , @user_id, 1, 'rem 2', '1401-11-11', 12, 08, 0801)
SELECT * FROM [Reminder]
GO
```

Part 1 Q 7 Result

1004

(2 rows affected)
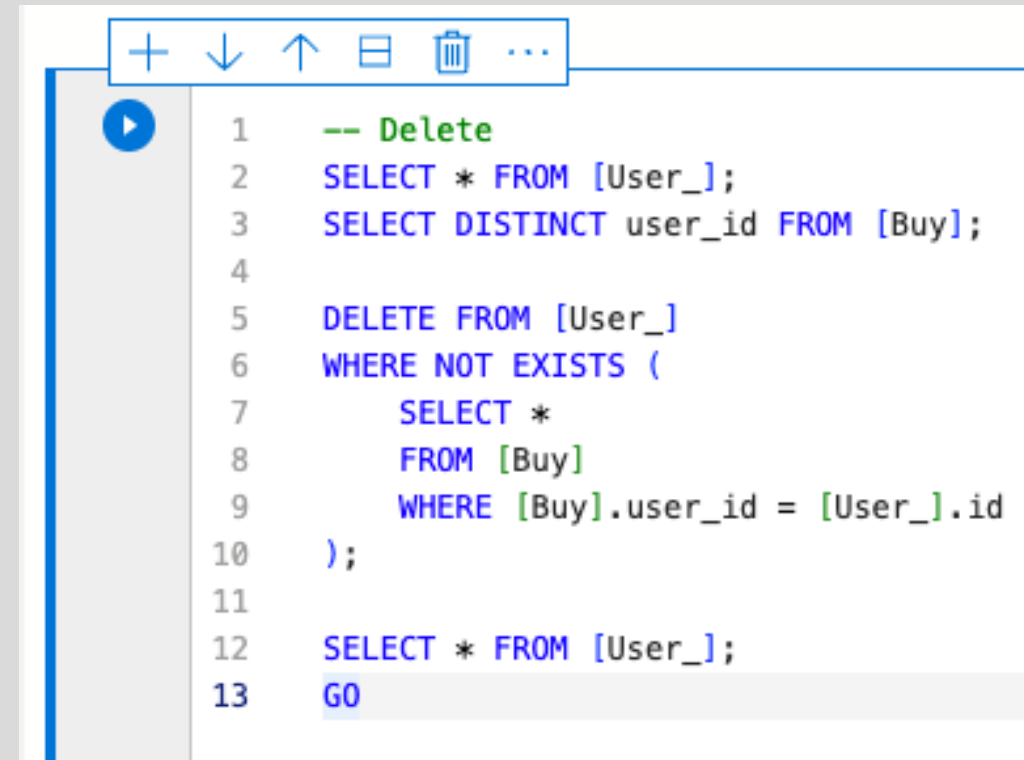
(10 rows affected)

Total execution time: 00:00:00.045

	id	user_id	ins_type	ins_description	due_date	ins_period	province_id	city_id
1	111	11	1	test purpose	1401-10-10	12	8	801
2	112	11	3	test purpose	1401-05-01	3	8	802
3	121	12	1	test purpose	1401-05-01	6	10	1001
4	131	13	2	test purpose	1401-06-07	1	10	1002
5	132	13	4	test purpose	1401-03-01	12	5	509
6	171	17	1	test purpose	1380-09-01	6	8	801
7	191	19	1	test purpose	1370-01-01	3	8	801
8	201	20	1	test purpose	1360-03-01	6	8	801
9	10041	1004	1	rem 1	1401-10-10	6	8	801
10	10042	1004	1	rem 2	1401-11-11	12	8	801

Part 1 Q delete Query

Part 1 Q delete Result

	id	phone	code	fname	lname	pass	invatation	is_logged_in
1	11	09026743937	r00nh2lt	Ali	Karimi	pass	5	1
2	12	09018110650	ygupw435	Mohammad	Amiri	pass	8	1
3	13	09129615681	tmvx37i0	Mahda	Ashrafi	pass	7	1
4	14	09371752150	qvri9z9g	Hossein	Mortazavi	pass	10	0
5	15	09025807894	13czlwwg	Helma	Akhgar	pass	4	1
6	16	09374787030	pye761w9	Roqaye	Azizi	pass	7	1
7	17	09308687695	934bo6me	Kasra	Siyavashpoor	pass	3	1
8	18	09027061854	yca0mvyl	Nikan	Norafkan	pass	8	0
9	19	09509879142	dul70p8r	Erfan	Riyazati	pass	10	1
10	20	09503672963	hr2kyfej	Reza	Najafi	pass	10	1
11	1001	09022226700	b00003ki	Zohre	Rasouli	pass3	8	1
12	1002	09022221155	c0000ddd	Elham	Niyayeshi	pass4	4	1
13	1003	09022222233	d0000eee	Reza	Maleki	pass5	8	1
14	1004	09022220044	f0000kkk	Morteza	Molayee	pass6	10	1
15	1005	09022220022	e0000jjj	Omid	Ahmadi	pass7	10	1
16	1006	09022224466	s0000bbb	Mohammad	Sajjadi	pass8	10	1

	user_id
1	11
2	12
3	13
4	15
5	16
6	18
7	19
8	1005
9	1006

	id	phone	code	fname	lname	pass	invatation	is_logged_in
1	11	09026743937	r00nh2lt	Ali	Karimi	pass	5	1
2	12	09018110650	ygupw435	Mohammad	Amiri	pass	8	1
3	13	09129615681	tmvx37i0	Mahda	Ashrafi	pass	7	1
4	15	09025807894	13czlwwg	Helma	Akhgar	pass	4	1
5	16	09374787030	pye761w9	Roqaye	Azizi	pass	7	1
6	18	09027061854	yca0mvyl	Nikan	Norafkan	pass	8	0
7	19	09509879142	dul70p8r	Erfan	Riyazati	pass	10	1
8	1005	09022220022	e0000jjj	Omid	Ahmadi	pass7	10	1
9	1006	09022224466	s0000bbb	Mohammad	Sajjadi	pass8	10	1

Part 1 Q Insert

```sql
-- Insert
CREATE TABLE [Tmp_user](
    [id] INT NOT NULL PRIMARY KEY,
    [phone] NVARCHAR(11) NOT NULL UNIQUE,
    [code] NVARCHAR(8) NOT NULL UNIQUE,
    [fname] NVARCHAR(50),
    [lname] NVARCHAR(50),
    [pass] NVARCHAR(25),
    [invatation] TINYINT DEFAULT 10,
    [is_logged_in] BIT DEFAULT 1
);

INSERT INTO [Tmp_user]
SELECT u.*
FROM [Buy] b
    INNER JOIN [User_] u ON (b.user_id = u.id)
    INNER JOIN [Insurance] ins ON (b.ins_id = ins.id)
    INNER JOIN [inqury] inq ON (b.inq_id = inq.id)
    INNER JOIN [Property_inq] pinq ON (pinq.inq_id = inq.id)
    INNER JOIN [Province] p ON (pinq.province_id = p.id)
WHERE
inq.inq_type = (SELECT id FROM [Type] WHERE [type] = 'Fire') AND
p.name IN ('khorasan Shomali', 'khorasan Razavi', 'khorasan Jonobi')

SELECT * FROM [Tmp_user]
GO
```
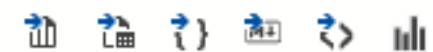
id	phone	code	fname	lname	pass	invatation	is_logged_in
1	12	09018110650	ygupw435	Mohammad	Amiri	pass	8	1
2	15	09025807894	13czlwwg	Helma	Akhgar	pass	4	1

Part 1 Q View

```sql
-- View
CREATE VIEW Family_Health_Ins_Users
AS
SELECT u.*
FROM [Buy] b
    INNER JOIN [User_] u ON (b.user_id = u.id)
    INNER JOIN [inqury] inq ON (b.inq_id = inq.id)
    INNER JOIN [Health_inq] hinq ON (hinq.inq_id = inq.id)
WHERE hinq.is_family = 1;
GO


SELECT * FROM Family_Health_Ins_Users
GO
```
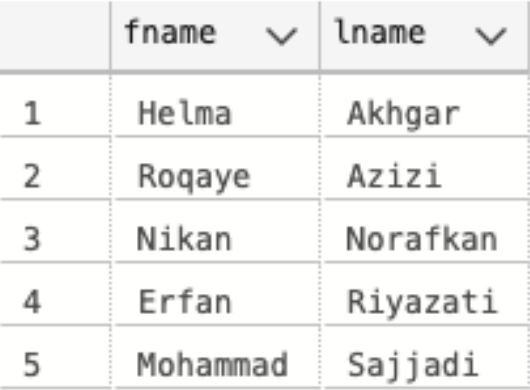
	id	phone	code	fname	lname	pass	invatation	is_logged_in
1	18	09027061854	yca0mvyl	Nikan	Norafkan	pass	8	0
2	19	09509879142	dul70p8r	Erfan	Riyazati	pass	10	1

Part 2 S 1

```sql
CREATE PROCEDURE userNotOrder
AS
SELECT [fname], [lname]
FROM [User_]
WHERE id NOT IN (
    SELECT b.user_id
    FROM Buy b
        INNER JOIN User_ u ON (b.user_id = u.id)
        INNER JOIN Insurance i ON (b.ins_id = i.id)
    WHERE ins_type = (SELECT id FROM [Type] WHERE [type] = 'Life')
    );
GO


EXEC userNotOrder;
GO
```

	fname	lname
1	Helma	Akhgar
2	Roqaye	Azizi
3	Nikan	Norafkan
4	Erfan	Riyazati
5	Mohammad	Sajjadi

```
CREATE PROCEDURE userMaxInsurance
    @maxprice BIGINT
AS
SELECT u.fname, u.lname
FROM Buy b
    INNER JOIN User_ u ON (b.user_id = u.id)
    INNER JOIN Insurance i ON (b.ins_id = i.id)
WHERE i.ins_type = (SELECT id FROM [Type] WHERE [type] = 'Health') and b.final_price <= @maxprice;
GO

EXECUTE userMaxInsurance @maxprice = 900000;
GO
```
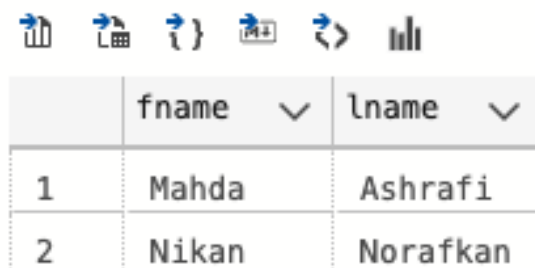
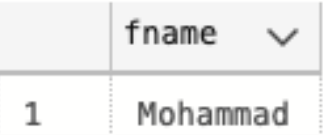|	fname	lname
1	Mahda	Ashrafi
2	Nikan	Norafkan

```sql
CREATE PROCEDURE userReminder
    @ins_period TINYINT
AS
SELECT u.fname
FROM User_ u
    INNER JOIN Reminder r ON (u.id = r.user_id)
WHERE r.ins_period = @ins_period AND r.ins_type = (SELECT id FROM [Type] WHERE [type] = 'Life');
GO

EXECUTE userReminder @ins_period = 6;
GO
```

	fname ∨
1	Mohammad

```sql
CREATE PROCEDURE avgName
    @baseinsurance NVARCHAR(30),
    @number_of_insurance INT
AS
SELECT AVG(LEN(u.lname)) AS avg_len_lname
FROM Buy b
    INNER JOIN [User_] u ON (b.user_id = u.id)
    INNER JOIN [Insurance] i ON (b.ins_id = i.id)
    INNER JOIN [Inqury] inq ON (b.inq_id = inq.id)
    INNER JOIN [Health_inq] hinq ON (inq.id = hinq.inq_id)
    INNER JOIN Member m ON (m.health_inq_id = hinq.id)
WHERE
i.ins_type = (SELECT id FROM [Type] WHERE [type] = 'Health') AND
hinq.is_family = 0 AND
hinq.count_of_memeber = 1 AND
m.base_ins = (SELECT id FROM [BaseIns] WHERE BaseIns.insurance = @baseinsurance) AND
@number_of_insurance >= (
    SELECT COUNT(b.id)
    FROM [User_] u1 LEFT OUTER JOIN Buy b ON (b.user_id = u1.id)
    WHERE u1.id = u.id
)
GO

EXEC avgName @baseinsurance = 'Bank ha', @number_of_insurance = 3
GO
```

	avg_len_lname ∨
1	7

```sql
CREATE PROCEDURE nameCompanyAsc
    @province NVARCHAR(35)
AS
SELECT ins.id, comp.name, ins.price, ins.discount
FROM [Buy] b
    INNER JOIN [Insurance] ins ON (b.ins_id = ins.id)
    INNER JOIN [Company] comp ON (ins.company_id = comp.id)
    INNER JOIN [inqury] inq ON (b.inq_id = inq.id)
    INNER JOIN [Property_inq] pinq ON (pinq.inq_id = inq.id)
    INNER JOIN [Province] p ON (pinq.province_id = p.id)
WHERE
ins.ins_type = (SELECT id FROM [Type] WHERE [type] = 'Fire') and
inq.inq_type = (SELECT id FROM [Type] WHERE [type] = 'Fire') and
p.name = @province
ORDER BY ins.price ASC;
GO

EXEC nameCompanyAsc @province = 'Tehran'
GO
```

	id	name	price	discount
1	302	Asia	220000	0
2	302	Asia	220000	0
3	303	Razi	230000	0
4	304	Parsian	240000	0
5	305	Dey	250000	0

```sql
CREATE PROCEDURE userInvitation
    @invatation int,
    @numofinsurance int
AS
SELECT u.fname
FROM [User_] u
WHERE u.invatation <= (10 - @invatation)
and u.id in (
    SELECT [user_id]
    FROM [Buy]
    GROUP BY [user_id]
    HAVING COUNT(*) >= @numofinsurance);
GO
```

```sql
EXEC userInvitation @invatation = 1, @numofinsurance = 2
GO
```

	fname
1	Ali
2	Mohammad
3	Mahda
4	Helma
5	Nikan

```sql
EXEC userInvitation @invatation = 3, @numofinsurance = 2
GO
```

	fname
1	Ali
2	Mahda
3	Helma

```sql
EXEC userInvitation @invatation = 3, @numofinsurance = 1
GO
```

	fname
1	Ali
2	Mahda
3	Helma
4	Roqaye

```sql
CREATE PROCEDURE userCompanyInsurance
    @type nvarchar(30),
    @company nvarchar(35)
AS
SELECT u.*
FROM Buy b
    INNER JOIN User_ u ON (b.user_id = u.id)
    INNER JOIN Insurance i ON (b.ins_id = i.id)
    INNER JOIN Company c ON (i.company_id = c.id)
WHERE c.[name] = @company AND i.ins_type = (SELECT id FROM [Type] WHERE [type] = @type)
GO

EXEC userCompanyInsurance @type = 'Life', @company = 'Saman'
GO
```

	id	phone	code	fname	lname	pass	invatation	is_logged_in
1	11	09026743937	r00nh2lt	Ali	Karimi	pass	5	1
2	13	09029615681	tmvx37i0	Mahda	Ashrafi	pass	7	1

```sql
CREATE PROCEDURE usersMaxMin
AS
WITH count_ins AS (
    SELECT u.id, COUNT(b.id) AS count
    FROM [User_] u LEFT OUTER JOIN [Buy] b ON (b.user_id = u.id)
    GROUP BY u.id
)
SELECT u.fname, u.lname, count
FROM User_ u INNER JOIN count_ins c_i ON (u.id = c_i.id)
WHERE
[count] = (SELECT MAX([count]) FROM count_ins) OR
[count] = (SELECT MIN([count]) FROM count_ins)
ORDER BY count DESC
GO

EXEC usersMaxMin;
GO
```
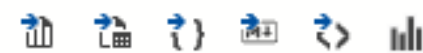
	fname	lname	count
1	Mahda	Ashrafi	4
2	Roqaye	Azizi	1
3	Omid	Ahmadi	1
4	Mohammad	Sajjadi	1

```sql
CREATE PROCEDURE mobileCount
    @begining nvarchar(11)
AS
SELECT COUNT(*) AS number_of_phonenumbers
FROM [User_]
WHERE phone LIKE @begining + '%'
GO

EXEC mobileCount @begining = '0937';
GO
```

	number_of_phonenumbers ⌄
1	2

```sql
CREATE PROCEDURE ageRangeFamilyInsurance
    @familycount int
AS
SELECT [range], COUNT(price) count, SUM(price) sum
FROM AgeRange
    LEFT OUTER JOIN (
        SELECT age_range, price
        FROM Member m
            INNER JOIN [Health_inq] hinq ON (hinq.id = m.health_inq_id)
            INNER JOIN [inqury] inq ON (inq.id = hinq.inq_id)
            INNER JOIN [Buy] b ON (b.inq_id = inq.id)
            INNER JOIN [Insurance] ins ON (ins.id = b.ins_id)
        WHERE
            m.head_id IS NULL AND
            m.relation = 0 AND
            hinq.is_family = 1 AND
            hinq.count_of_memeber = @familycount
    ) T ON (age_range = AgeRange.id)
GROUP BY [range]
GO
```

```sql
EXECUTE ageRangeFamilyInsurance @familycount = 3;
GO
```

	range	count	sum
1	16 to 45	0	NULL
2	46 to 50	1	150000
3	5 to 15	0	NULL
4	51 to 60	0	NULL
5	61 to 70	0	NULL
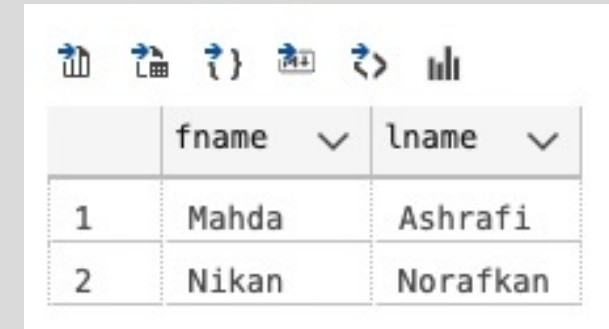
```sql
EXECUTE ageRangeFamilyInsurance @familycount = 4;
GO
```

	range	count	sum
1	16 to 45	0	NULL
2	46 to 50	0	NULL
3	5 to 15	0	NULL
4	51 to 60	1	200000
5	61 to 70	0	NULL

```sql
CREATE PROCEDURE twoInsurances
    @A nvarchar(15),
    @B nvarchar(15)
AS
SELECT DISTINCT fname, lname
FROM Buy b
    INNER JOIN [User_] u ON (b.user_id = u.id)
    INNER JOIN [Insurance] i ON (b.ins_id = i.id)
WHERE
EXISTS (
    SELECT fname, lname
    FROM Buy b
        INNER JOIN [User_] u1 ON (b.user_id = u1.id)
        INNER JOIN [Insurance] i ON (b.ins_id = i.id)
    WHERE u1.id = u.id AND i.ins_type = (SELECT id FROM [Type] WHERE [type] = @A))
AND EXISTS (
    SELECT fname, lname
    FROM Buy b
        INNER JOIN [User_] u2 ON (b.user_id = u2.id)
        INNER JOIN [Insurance] i ON (b.ins_id = i.id)
    WHERE u2.id = u.id AND i.ins_type = (SELECT id FROM [Type] WHERE [type] = @B))
GO
```

```sql
EXECUTE twoInsurances 'Health', 'Fire';
GO
```

	fname	lname
1	Mahda	Ashrafi
2	Nikan	Norafkan

```sql
CREATE PROCEDURE avgEarthquake
    @province NVARCHAR(50)
AS
SELECT c.name, avg_metrage
FROM (
    SELECT pinq.city_id, AVG(pinq.meterage) avg_metrage
    FROM Property_inq pinq
        INNER JOIN Inqury i ON((pinq.inq_id = i.id) and (i.inq_type) = (SELECT id FROM [Type] WHERE [type] = 'Earthquake'))
        INNER JOIN Province p ON ((pinq.province_id = p.id) and (p.name = @province))
    WHERE pinq.life_building = 0
    GROUP BY pinq.city_id
) T
    INNER JOIN city c ON (T.city_id = c.id);
GO
```

```sql
EXECUTE avgEarthquake @province = 'khorasan Razavi';
GO
```
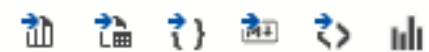
	name	avg_metrage
1	Mashhad	200
2	Sabzevar	150

```sql
CREATE PROCEDURE updateInsurance
    @period INT
AS
UPDATE Life_inq
SET payment_way = 6
FROM Life_inq
WHERE contract_period < @period;
GO
```

```sql
SELECT * FROM Life_inq;
EXECUTE updateInsurance @period = 20;
SELECT * FROM Life_inq;
GO
```

	id	inq_id	birth_date	contract_period	payment_way	monthly_payment	premiums_increase	capital_increase	death_coefficient
1	101	101	1400-10-10	5	3	70000	25	10	20
2	102	102	1360-01-01	10	3	100000	25	10	20
3	103	103	1375-03-10	20	12	100000	25	10	20
4	104	104	1399-07-06	15	12	100000	25	10	20
5	105	105	1401-02-26	30	3	100000	25	10	20
6	151	151	1400-10-10	5	3	50000	25	10	20

	id	inq_id	birth_date	contract_period	payment_way	monthly_payment	premiums_increase	capital_increase	death_coefficient
1	101	101	1400-10-10	5	6	70000	25	10	20
2	102	102	1360-01-01	10	6	100000	25	10	20
3	103	103	1375-03-10	20	12	100000	25	10	20
4	104	104	1399-07-06	15	6	100000	25	10	20
5	105	105	1401-02-26	30	3	100000	25	10	20
6	151	151	1400-10-10	5	6	50000	25	10	20

```
CREATE PROCEDURE DeleteInsurance
    @X BIGINT,
    @Y BIGINT,
    @Z BIGINT
AS
DELETE Inqury
FROM [Buy] b
    INNER JOIN [Insurance] ins ON (b.ins_id = ins.id)
    INNER JOIN [Life_insurance] lins ON (ins.id = lins.ins_id)
    INNER JOIN [inqury] inq ON (b.inq_id = inq.id)
    INNER JOIN [Life_inq] linq ON (linq.inq_id = inq.id)
WHERE
linq.contract_period = 5 AND
linq.monthly_payment BETWEEN @X AND @Y AND
lins.redemption_value < @Z;
GO
```

```
SELECT * FROM Buy;
EXECUTE DeleteInsurance @X = 50000, @Y = 100000, @Z = 30000000;
SELECT * FROM Buy;
GO
```

	id	user_id	ins_id	inq_id	final_price	discount_code
1	111	11	101	101	1500000	NULL
2	112	11	201	201	1500000	NULL
3	113	11	401	401	1500000	NULL
4	121	12	102	102	1500000	NULL

Deleted

	id	user_id	ins_id	inq_id	final_price	discount_code
1	112	11	201	201	1500000	NULL
2	113	11	401	401	1500000	NULL
3	121	12	102	102	1500000	NULL
4	122	12	301	301	1500000	NULL

```sql
CREATE PROCEDURE fireInsurance
AS
SELECT *
FROM [User_] u
WHERE NOT EXISTS (
    SELECT *
    FROM StructureType st
    WHERE NOT EXISTS (
        SELECT *
        FROM [Buy] b
            INNER JOIN [inqury] inq ON (b.inq_id = inq.id)
            INNER JOIN [Property_inq] pinq ON (pinq.inq_id = inq.id)
        WHERE inq.inq_type = (SELECT id FROM [Type] WHERE [type] = 'Fire')
        AND b.user_id = u.id
        AND pinq.structure_type = st.id
    )
)
UNION
SELECT u.*
FROM [Buy] b
    INNER JOIN [User_] u ON (b.user_id = u.id)
    INNER JOIN [inqury] inq ON (b.inq_id = inq.id)
    INNER JOIN [Property_inq] pinq ON (pinq.inq_id = inq.id)
WHERE inq.inq_type = (SELECT id FROM [Type] WHERE [type] = 'Fire')
AND pinq.structure_type = (SELECT id FROM StructureType WHERE [type] =  'aparteman ya mojtama')
AND pinq.uinit_count > 10
AND NOT EXISTS (
    SELECT *
    FROM [Buy] b2
        INNER JOIN [inqury] inq2 ON (b2.inq_id = inq2.id)
    WHERE inq2.inq_type = (SELECT id FROM [Type] WHERE [type] = 'Fire')
    AND b2.user_id = u.id
    AND b2.id <> b.id
);
GO
```

```sql
EXECUTE fireInsurance;
GO
```

	id	phone	code	fname	lname	pass	invatation	is_logged_in
1	12	09018110650	ygupw435	Mohammad	Amiri	pass	8	1
2	15	09025807894	13czlwwg	Helma	Akhgar	pass	4	1
3	16	09374787030	pye761w9	Roqaye	Azizi	pass	7	1