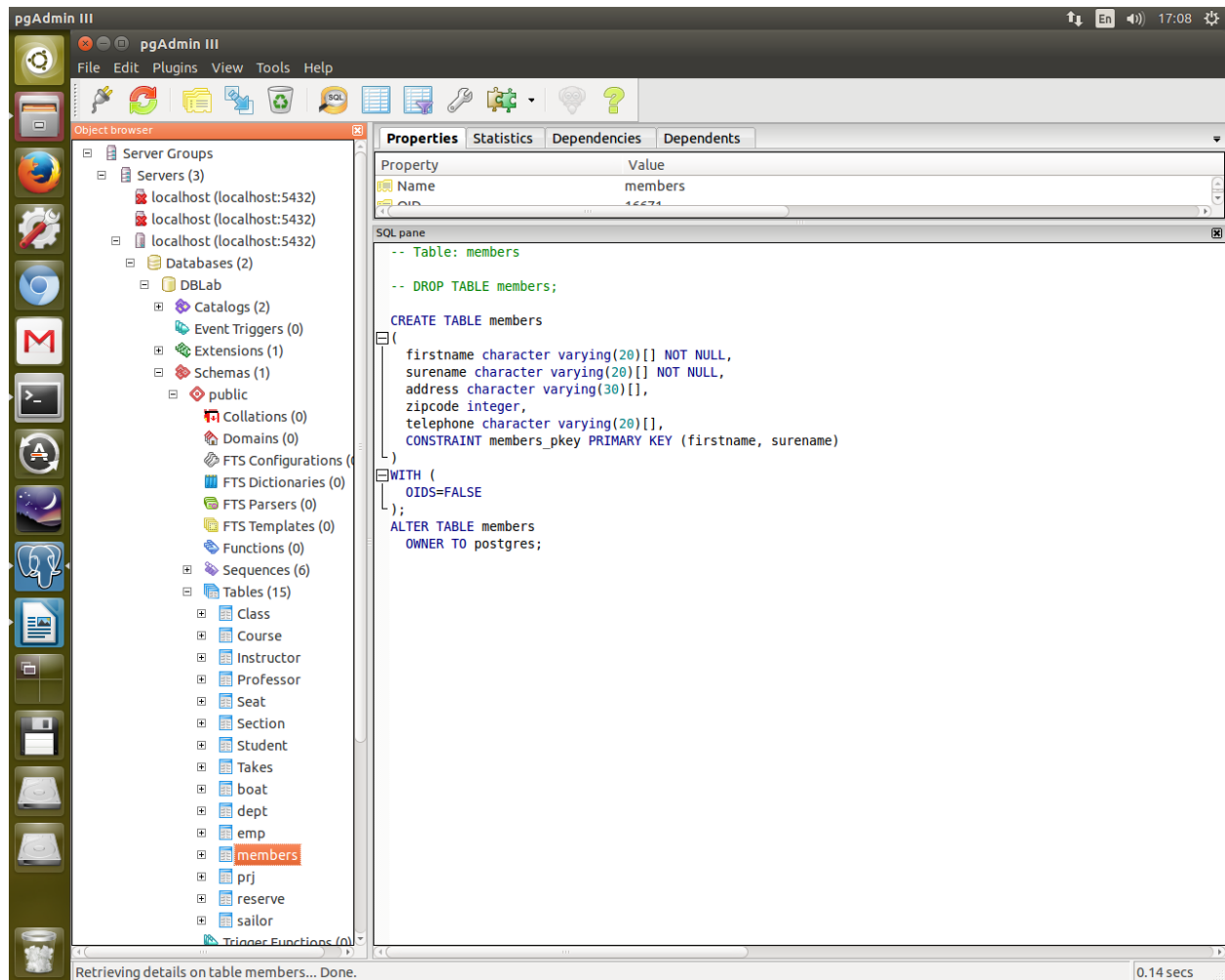
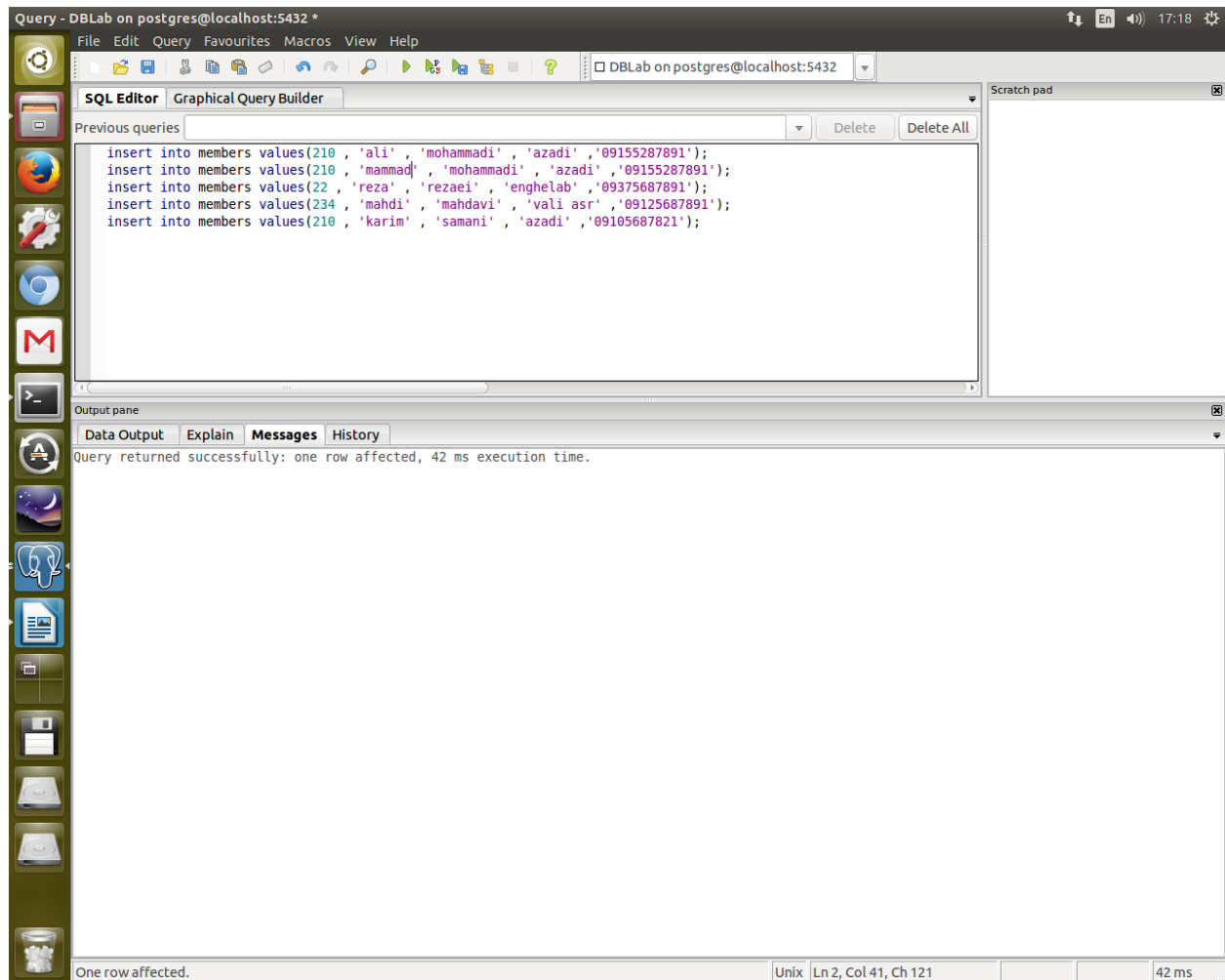


به نام خدا

محمد مهدی آقاجانی

گزارش چهارم

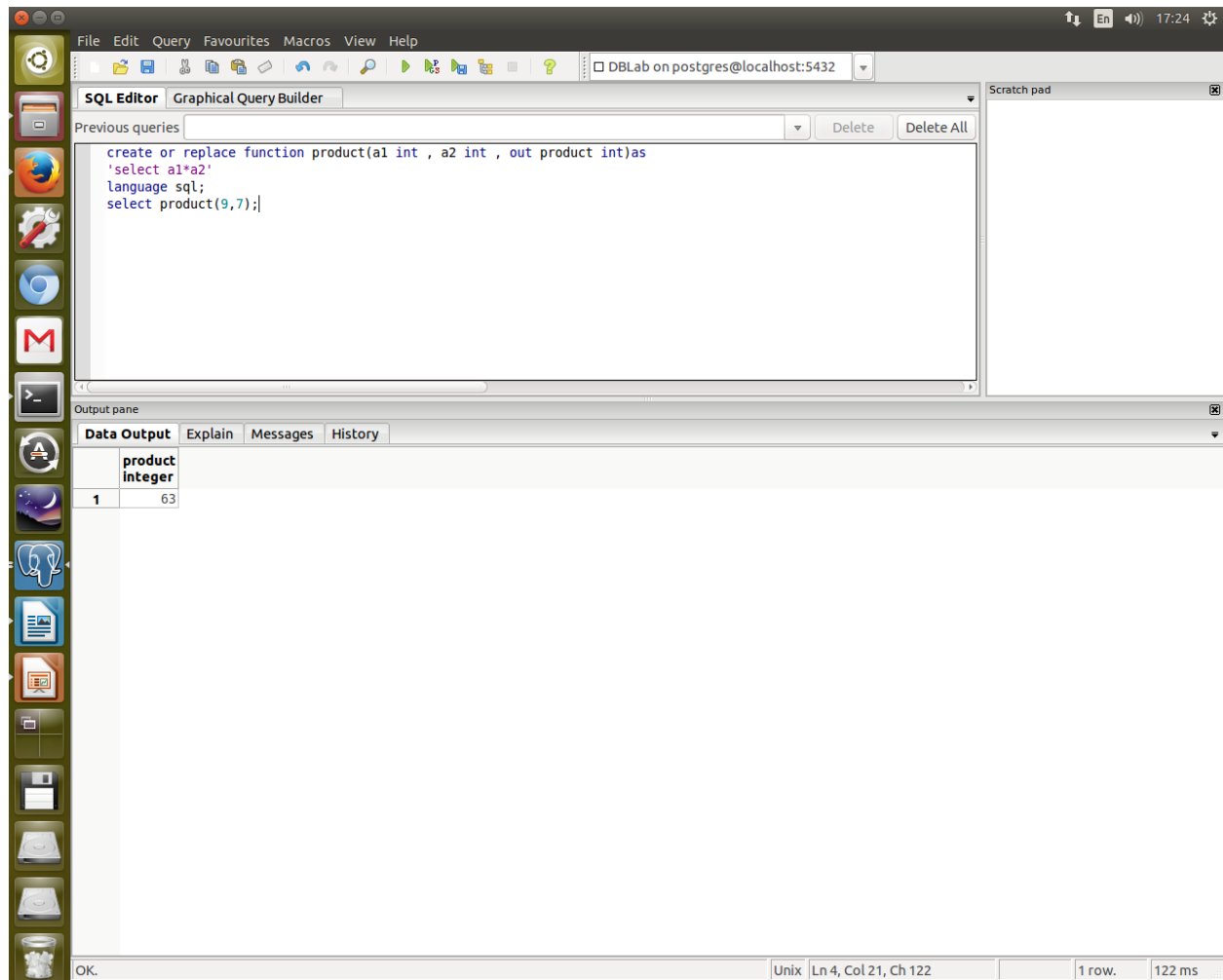


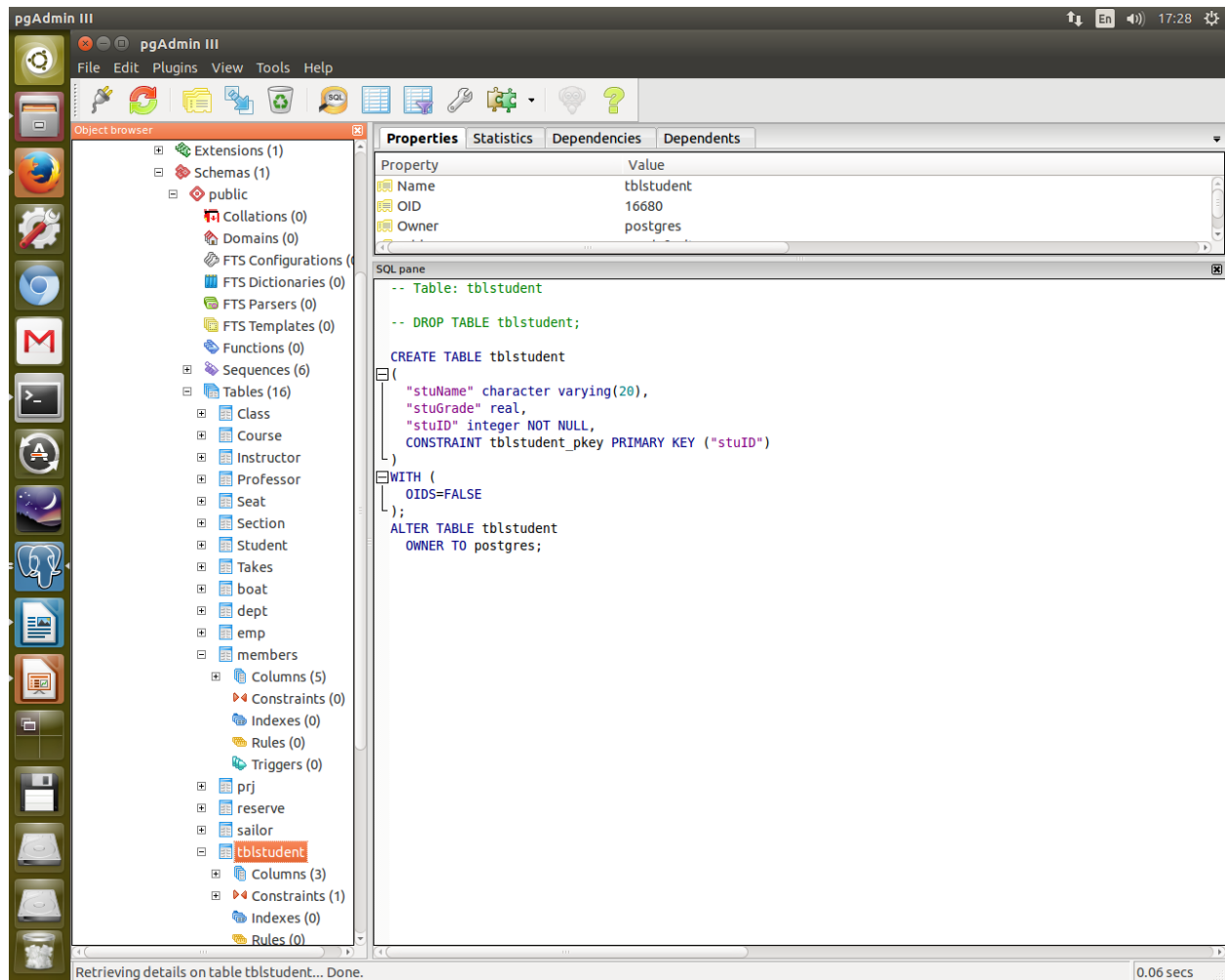


The screenshot shows the DDLab SQL Editor interface. The title bar reads "Query - DDLab on postgres@localhost:5432 \*". The menu bar includes "File", "Edit", "Query", "Favourites", "Macros", "View", and "Help". The toolbar contains various icons for file operations, editing, and execution. The "SQL Editor" tab is active, displaying the query: `select distinct surname from members order by surname ASC limit 3;`. The "Previous queries" list is empty. The "Output pane" at the bottom shows the "Data Output" tab with the following results:

|   | surname<br>character varying(20) |
|---|----------------------------------|
| 1 | mahdavi                          |
| 2 | mohammadi                        |
| 3 | rezaei                           |

The status bar at the bottom indicates "OK.", "Unix", "Ln 1, Col 68, Ch 68", "3 rows.", and "3 ms".





Query - DBLab on postgres@localhost:5432 \*

File Edit Query Favourites Macros View Help

SQL Editor Graphical Query Builder

Previous queries [v] Delete Delete All

```

create or replace function insert_data(name character varying(20),ID integer , grade real) returns void as $$
insert into tblstudent values( name , grade , ID);
$$ language SQL;

select insert_data( 'ali' , 31058 , 19.5);
select insert_data( 'gholi' , 31059 , 15.5);
select insert_data( 'rahim' , 31057 , 16.5);
select insert_data( 'reza' , 31056 , 17.5);
select insert_data( 'karim' , 31055 , 18.5);

select * from tblstudent;

```

Scratch pad

Output pane

Data Output Explain Messages History

|   | stuName<br>character varying(20) | stuGrade<br>real | stuID<br>integer |
|---|----------------------------------|------------------|------------------|
| 1 | ali                              | 19.5             | 31058            |
| 2 | gholi                            | 15.5             | 31059            |
| 3 | rahim                            | 16.5             | 31057            |
| 4 | reza                             | 17.5             | 31056            |
| 5 | karim                            | 18.5             | 31055            |

OK. Unix Ln 11, Col 26, Ch 429 5 rows. 21 ms

The screenshot displays the DDLab SQL Editor interface. The main window shows a PostgreSQL query in the SQL Editor tab. The query is as follows:

```
create or replace function get_status() returns character varying(20) as $status$  
declare status character varying(20);  
declare num integer;  
begin  
    select count(*) from tblstudent where tblstudent.stuGrade < 10 into num;  
    if num < 2 then  
        status := 'Good';  
    elsif num = 2 or num = 3 then  
        status := 'Normal';  
    else  
        status := 'Bad';  
    end if;  
    return status;  
end  
$status$ language plpgsql;  
  
select get_status();
```

The Output pane at the bottom shows the result of the query. It displays a table with one row and one column, where the column is named 'get\_status' and the value is 'Good'.

| get_status<br>character varying |
|---------------------------------|
| 1 Good                          |

The status bar at the bottom indicates the current position in the file: Unix | Ln 5, Col 58, Ch 198. It also shows the execution time: 1 row, 23 ms.



pgAdmin III

File Edit Plugins View Tools Help

Object browser

Databases (2)

- DBLab
  - Catalogs (2)
  - Event Triggers (0)
  - Extensions (1)
  - Schemas (1)
    - public
      - Collations (0)
      - Domains (0)
      - FTS Configurations (0)
      - FTS Dictionaries (0)
      - FTS Parsers (0)
      - FTS Templates (0)
      - Functions (0)
      - Sequences (6)
      - Tables (16)
        - Class
        - Course
        - Instructor
        - Professor
        - Seat
        - Section
        - Student
        - Takes
        - boat
        - dept
        - emp
        - members
        - Columns (5)
          - Constraints (0)
          - Indexes (0)
          - Rules (0)
          - Triggers (0)
        - prj
        - reserve
        - sailor
        - tblstudent

Properties Statistics Dependencies Dependents

Property Value

Name tblstudent

OID 16680

Owner postgres

Tablespace pg\_default

ACL

Edit Data - localhost (localhost:5432) - DBLab - tblstudent

File Edit View Tools Help

No limit

|   | stuname               | stugrade | stuid        |
|---|-----------------------|----------|--------------|
|   | character varying(20) | real     | [PK] integer |
| 1 | karim                 | 18.5     | 31055        |
| 2 | reza                  | 9        | 31056        |
| 3 | rahim                 | 9.5      | 31057        |
| 4 | ali                   | 10.5     | 31058        |
| 5 | gholi                 | 15.5     | 31059        |
| * |                       |          |              |

Scratch pad

5 rows.

```
CREATE TABLE tblstudent
(
  stuname character varying(20),
  stugrade real,
  stuid integer NOT NULL,
  CONSTRAINT tblstudent_pkey PRIMARY KEY (stuid)
)
WITH (
  OIDS=FALSE
);
ALTER TABLE tblstudent
```

Refreshing table tblstudent... Done.

0.09 secs

Query - DDLab on postgres@localhost:5432 \*

File Edit Query Favourites Macros View Help

SQL Editor Graphical Query Builder

Previous queries [v] Delete Delete All

```

create or replace function change( num int) returns void as $$
declare number10 integer;
begin
    select count(*) from tblstudent where tblstudent.stuGrade < 10 into number10;
    if number10 < num then
        update tblstudent set stuGrade = stuGrade +1 where stuGrade < 10 and stuGrade > 9;
    else
        update tblstudent set stuGrade = stuGrade +2 where stuGrade < 11 and stuGrade > 10;
    end if;
end
$$ language plpgsql;

select change(10);
select * from tblstudent ;|
    
```

Scratch pad

Output pane

Data Output Explain Messages History

|   | stuname               | stuGrade | stuid   |
|---|-----------------------|----------|---------|
|   | character varying(20) | real     | integer |
| 1 | gholi                 | 15.5     | 31059   |
| 2 | karim                 | 18.5     | 31055   |
| 3 | reza                  | 9        | 31056   |
| 4 | ali                   | 10.5     | 31058   |
| 5 | rahim                 | 10.5     | 31057   |

OK. Unix Ln 14, Col 27, Ch 454 5 rows. 25 ms

The screenshot displays the DDLab SQL Editor window, titled "Query - DDLab on postgres@localhost:5432 \*". The interface includes a menu bar (File, Edit, Query, Favourites, Macros, View, Help), a toolbar, and a sidebar with various icons. The main SQL Editor pane contains the following SQL code:

```
create or replace function get_grade( name character varying(20)) returns real as $grades$
declare grade real;
begin
    select stugrade from tblstudent where stuname = name into grade;
    return grade;
end
$grades$ language plpgsql;

select get_grade('ali');|
```

Below the SQL Editor is the "Output pane" with tabs for "Data Output", "Explain", "Messages", and "History". The "Data Output" tab is active, showing a table with the following data:

|   | get_grade | real |
|---|-----------|------|
| 1 |           | 14   |

The status bar at the bottom indicates "OK.", "Unix", "Ln 9, Col 25, Ch 253", "1 row.", and "49 ms".