International Information Technologies University



**Coursework №7-8**

Relational Algebra

Topic: “Fargo”

E-Shop Database

Submitted by:

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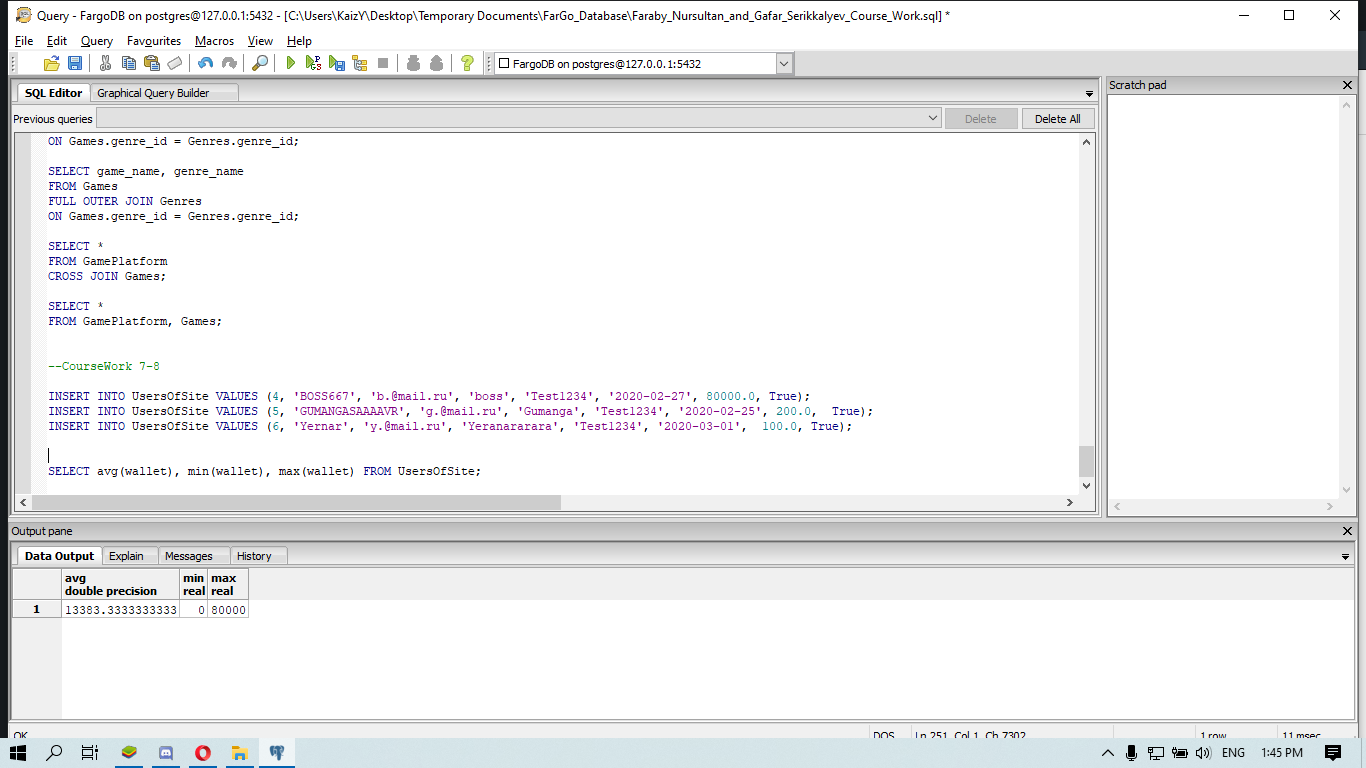
Group: CSSE-1804K

Submitted to: Kozina L.A.

2020, Almaty

**1. Making a query with following functions: max(), min(), avg(), sum(), to use on Users of site.**

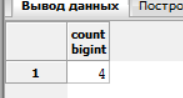
SELECT avg(wallet), min(wallet), max(wallet) FROM UsersOfSite;



**2. Making a query with count() function, counting how many entities we have in Games table**

SELECT count(\*)

FROM Games;



**3. Use of GROUP BY to sum games which have particular genre\_ids:**

SELECT genre\_id, count(\*)

FROM Games

GROUP BY genre\_id;



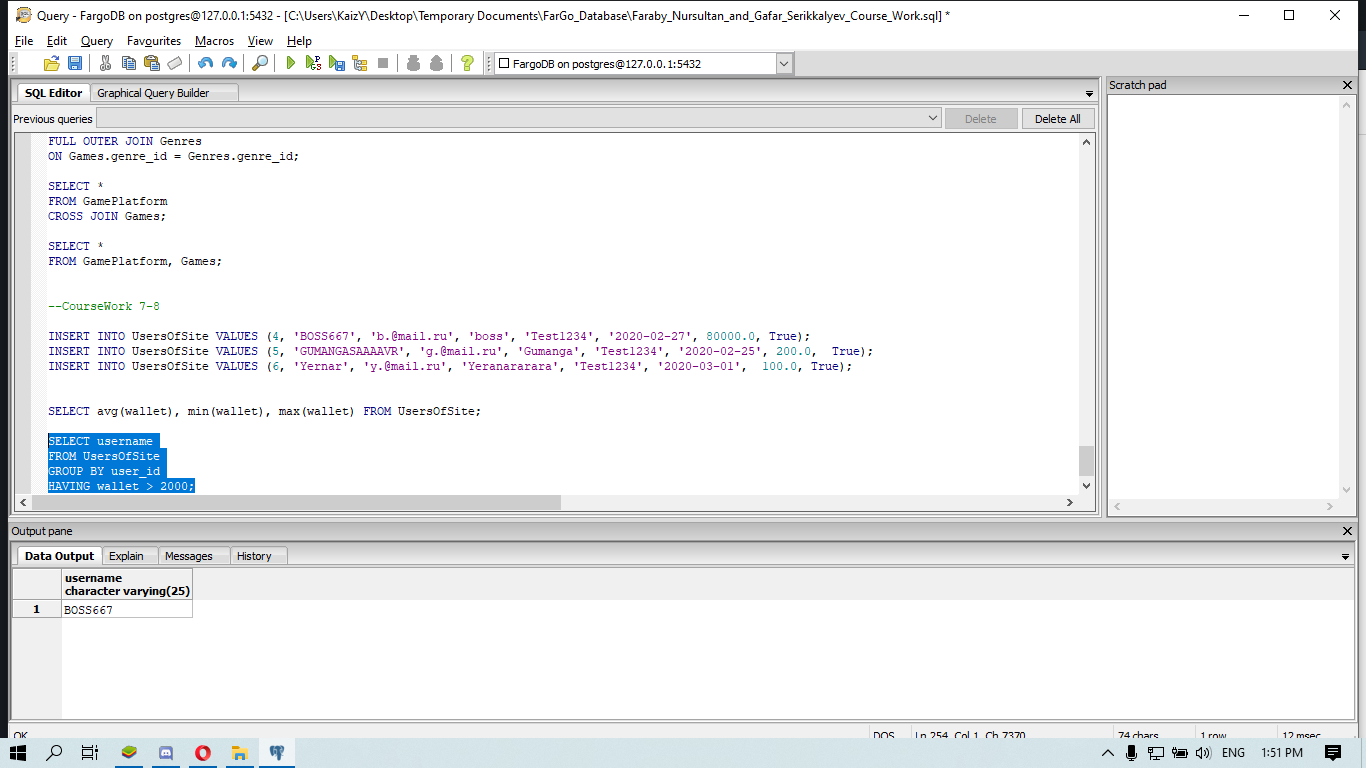
**4. Query with HAVING keyword to Users of Site.**

SELECT username

FROM UsersOfSite

GROUP BY user\_id

HAVING wallet > 2000;

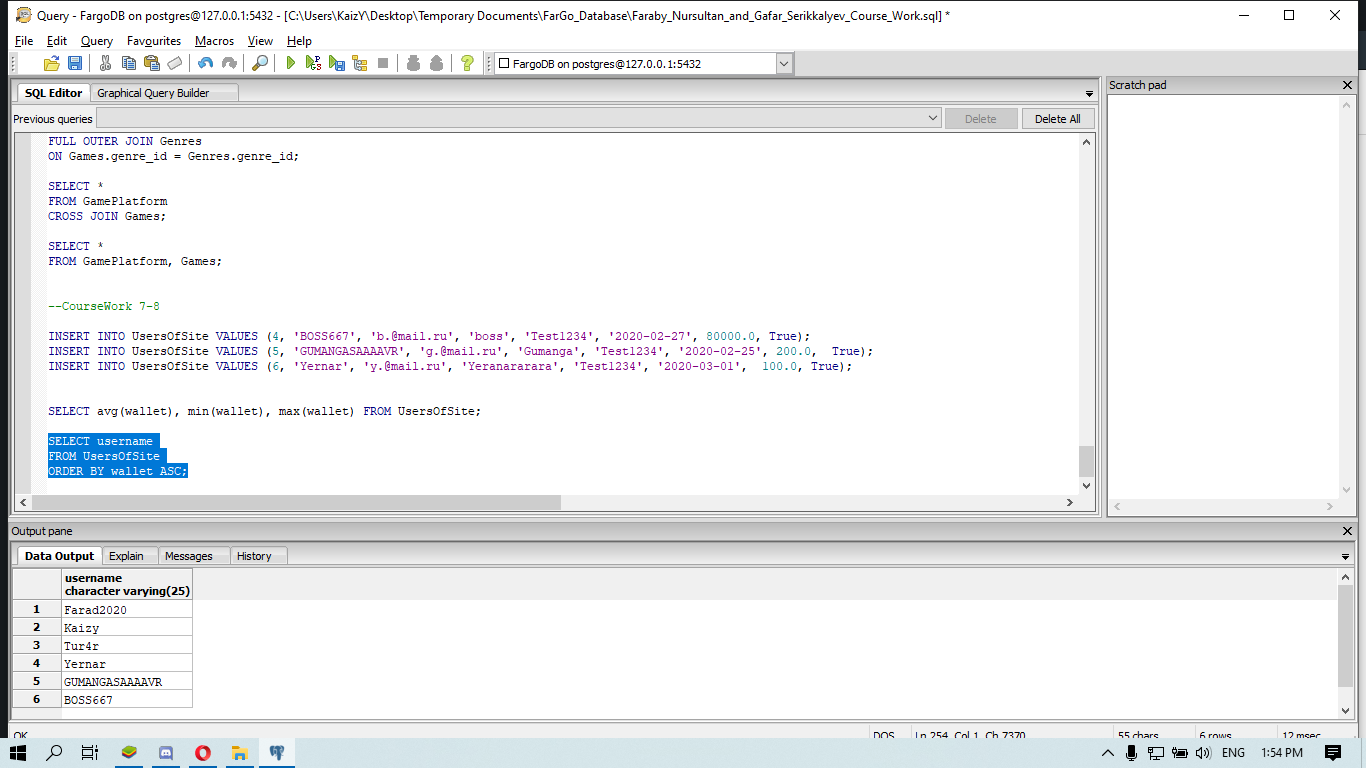


**5.** **Use SELECT statement with sorting results in ascending order**

SELECT username

FROM UsersOfSite

ORDER BY wallet ASC;

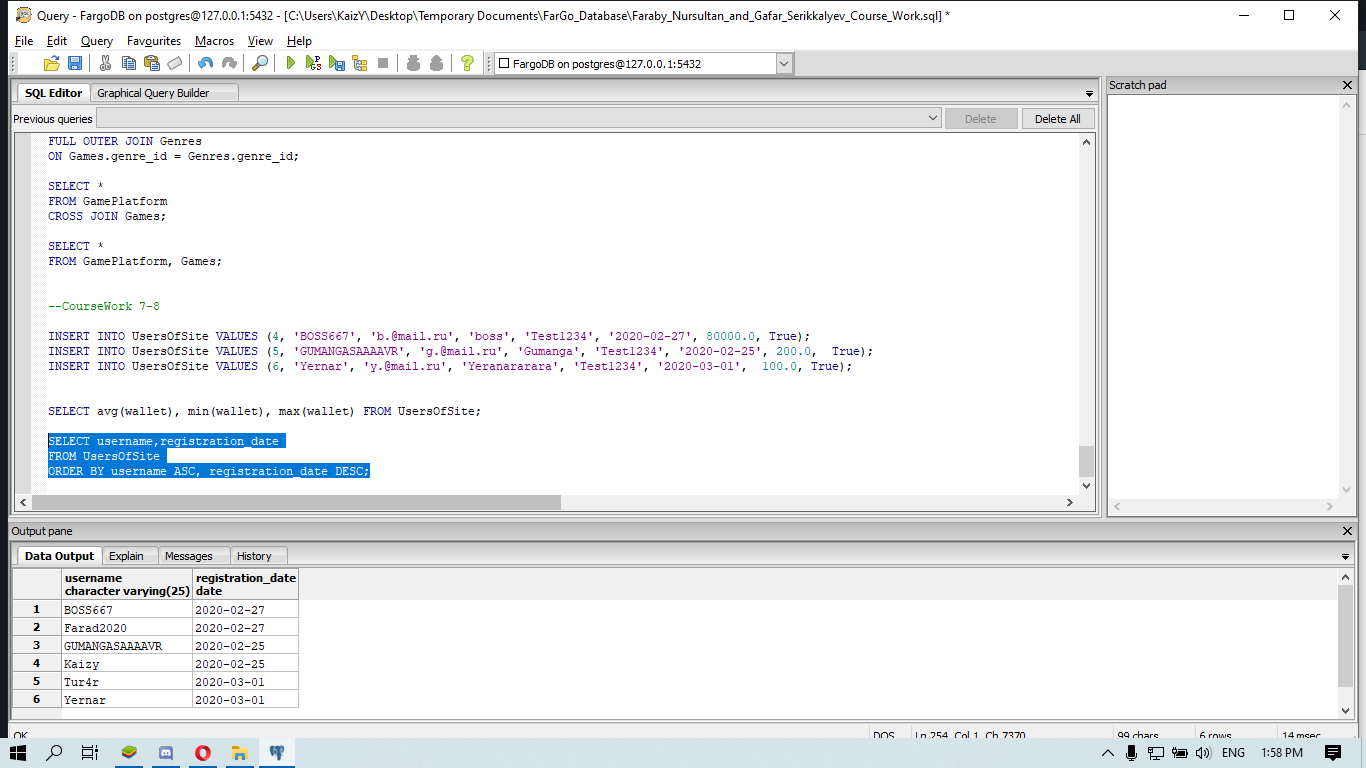


**6. Writing query with two different types of ordering for different attributes**

SELECT username,registration\_date

FROM UsersOfSite

ORDER BY username ASC, registration\_date DESC;

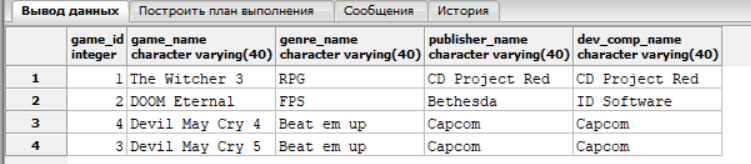


**7. Showing how we can get games, and related information, which lies in different tables:**

SELECT game.game\_id, game.game\_name, genre.genre\_name, pub.publisher\_name, devs.dev\_comp\_name

FROM Games game, Genres genre, GamePublishers pub, GameDeveloperCompanies devs

Where genre.genre\_id = game.genre\_id and game.publisher\_id = pub.publisher\_id and game.dev\_comp\_id = devs.dev\_comp\_id;

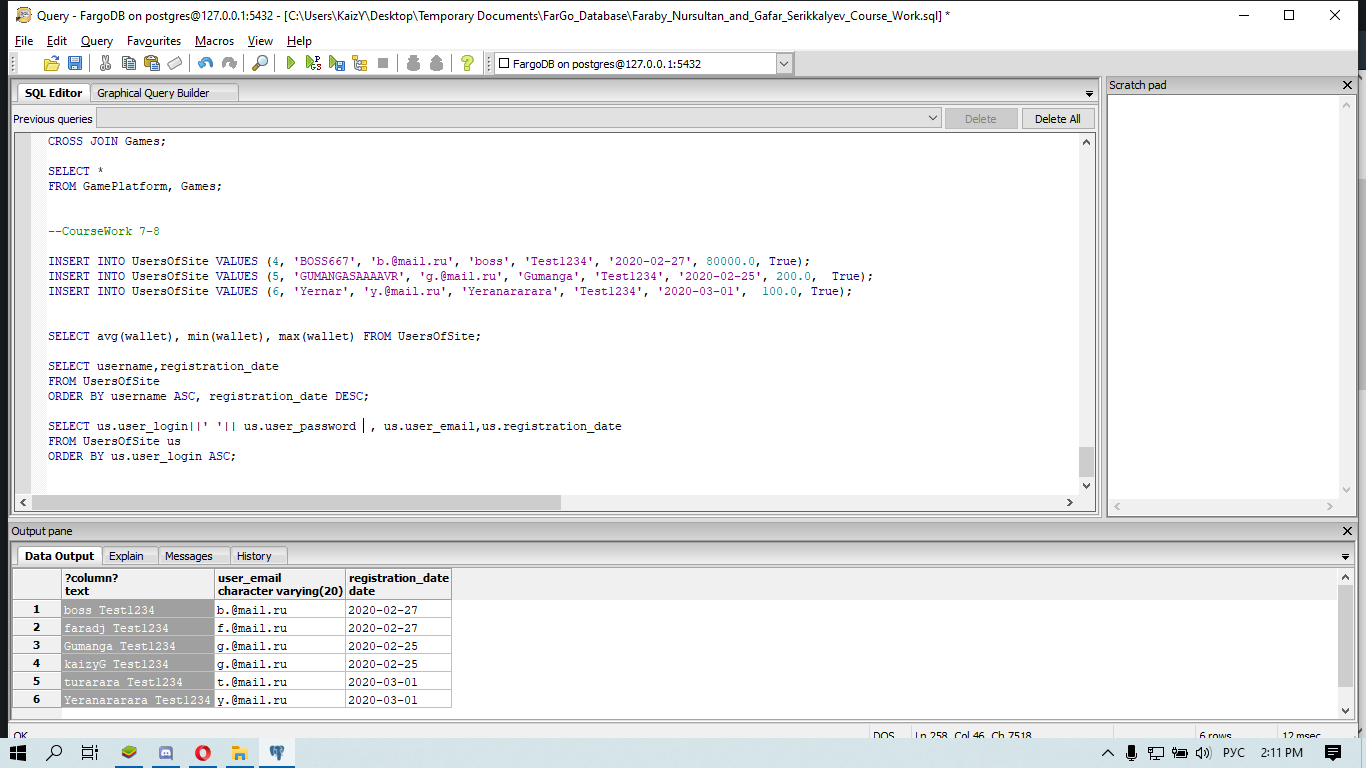


**8**. **We are showing you query from users: Login, Username conjuncted in one column, and other attributes**

SELECT us.user\_login||' '|| us.user\_password , us.user\_email,us.registration\_date

FROM UsersOfSite us

ORDER BY us.user\_login AS**C;**

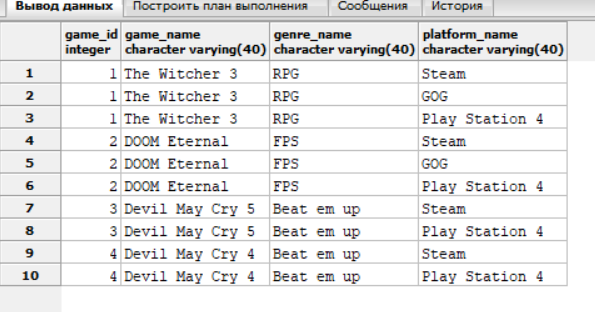
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**9. Getting info about Games and their platforms through PlatformRelations table:**

SELECT game.game\_id, game.game\_name, genre.genre\_name, platform.platform\_name

FROM Games game, GamePlatform platform, Genres genre, PlatformRelation rel

Where rel.game\_id = game.game\_id and rel.platform\_id = platform.platform\_id and genre.genre\_id = game.genre\_id;



10.  **Here we show you sum of all transactions off all users who bought game for price between 10000 and 30000(We have 3 transaction history with :20000,7000,20000 transaction costs).**

**So sum of all except 7000 due to condition = 40000**

SELECT sum(transaction\_cost) FROM TransactionHistory

WHERE transaction\_cost BETWEEN 10000 AND 30000;

