

# **BBM473: Database Laboratory Final Project**

## **Phase-4: Final**

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**Project:** E-Commerce Management System

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# 1- Details of Desktop Database Application

- ✓ **Operating System:** Windows
- ✓ **Database System:** PostgreSQL Server (Version: 14)
- ✓ **Programming Language:** Java
- ✓ **Developed With:** Netbeans Java IDE (Version: 13)
- ✓ **Database Password:** admin123.

## 2- Conditions That Need To Satisfied

**1- User Login Screen:** When you execute application, first of all you should connect to database. In order to provide ease to use, i have already added default values to textboxes. After that, if database connects successfully or fails you'll see different message boxes. If connection is successful, than login screen shows up.

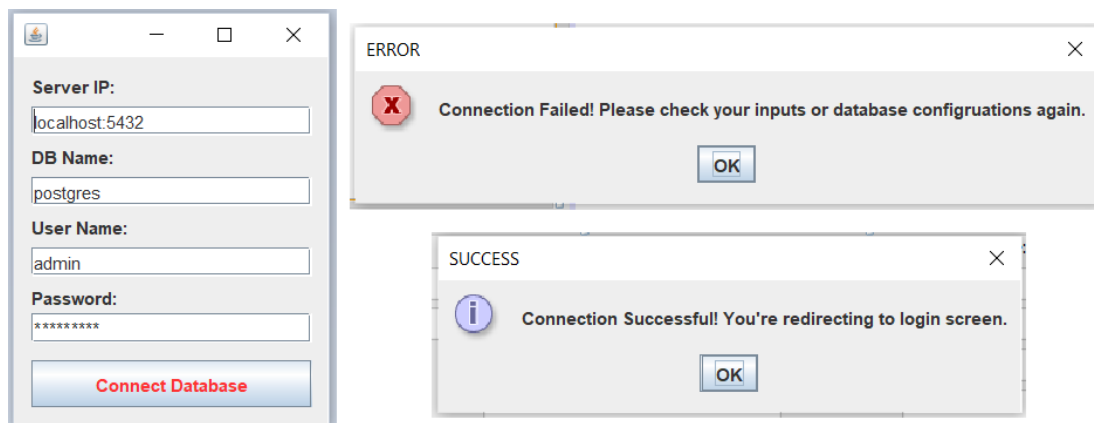
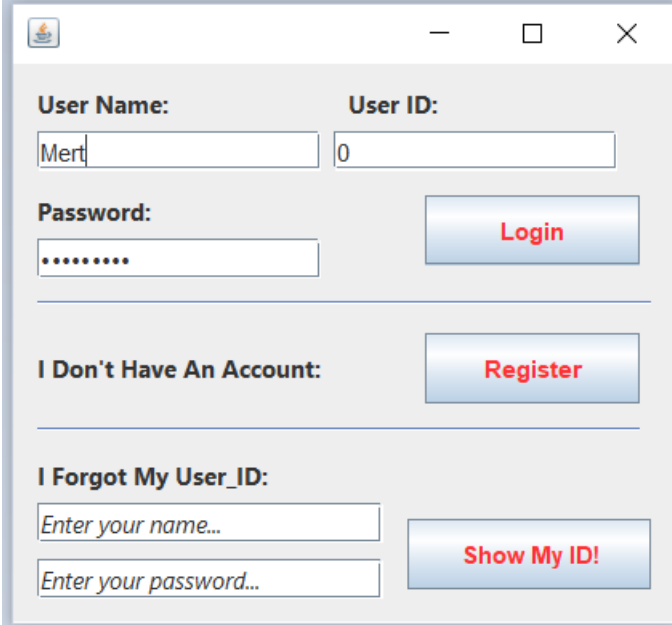


Image-1: Database Connection Screen

- A-** At the login screen, users should fill textboxes about user name, user\_id and passwords.
- B-** If users forgot their user\_id's, then they can learn their user\_id's with using tool at the most bottom of screen.
- C-** Also user can be register with filling a form. User can be registered as standart customer, premium customer or platin customer.
- D-** Moreover, informative message boxes shows when you click login button. (they are similar to message boxes, which are at image at top)



A screenshot of a web application window titled "User Login Screen". The window has a standard Windows-style title bar with a minimize button, a maximize button, and a close button. The main content area is light gray and contains three sections. The first section is for login, with labels "User Name:" and "User ID:" above input fields. The "User Name" field contains the text "Mert" and the "User ID" field contains "0". Below these is a "Password:" label above a masked input field showing seven dots. To the right of the password field is a blue button with the text "Login" in red. The second section is for registration, with the label "I Don't Have An Account:" above a blue button with the text "Register" in red. The third section is for finding a lost user ID, with the label "I Forgot My User\_ID:" above two input fields. The first input field contains the placeholder text "Enter your name..." and the second contains "Enter your password...". To the right of these fields is a blue button with the text "Show My ID!" in red.

User Name: Mert User ID: 0

Password: ..... Login

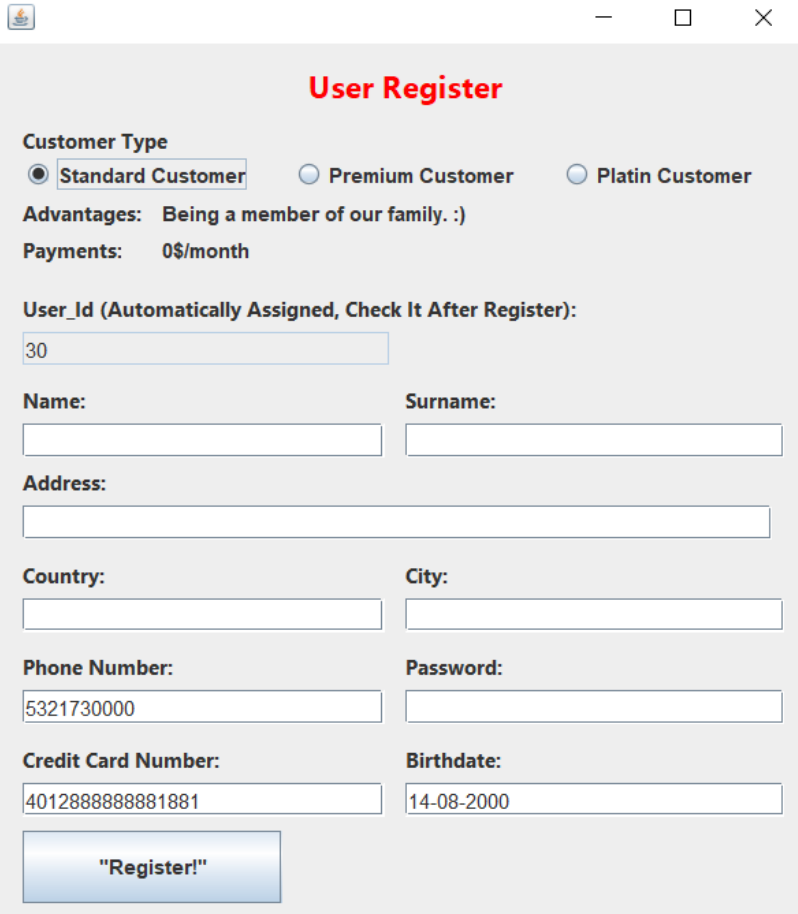
I Don't Have An Account: Register

I Forgot My User\_ID:

Enter your name... Show My ID!

Enter your password...

Image-2: User Login Screen



A screenshot of a web application window titled "User Register". The window has a standard Windows-style title bar with a minimize button, a maximize button, and a close button. The main content area is light gray and contains a registration form. At the top, the title "User Register" is displayed in red. Below the title, there is a section for "Customer Type" with three radio buttons: "Standard Customer" (selected), "Premium Customer", and "Platin Customer". Below this, there is a section for "Advantages:" with the text "Being a member of our family. :)" and a section for "Payments:" with the text "0\$/month". Below these, there is a section for "User\_Id (Automatically Assigned, Check It After Register):" with an input field containing the value "30". Below this, there are two input fields for "Name:" and "Surname:". Below these, there is a single input field for "Address:". Below this, there are two input fields for "Country:" and "City:". Below these, there are two input fields for "Phone Number:" (containing "5321730000") and "Password:". Below these, there are two input fields for "Credit Card Number:" (containing "4012888888881881") and "Birthdate:" (containing "14-08-2000"). At the bottom of the form is a blue button with the text "Register!" in red.

User Register

Customer Type

☒ Standard Customer ☐ Premium Customer ☐ Platin Customer

Advantages: Being a member of our family. :)

Payments: 0\$/month

User\_Id (Automatically Assigned, Check It After Register):

30

Name: Surname:

Address:

Country: City:

Phone Number: Password:

5321730000

Credit Card Number: Birthdate:

4012888888881881 14-08-2000

"Register!"

Image-3: User (Only Customer) Register Screen

-> User\_ID's are automatically assigned  
 -> After registering, not only user table but also tables of subclasses will be added automatically.

**2- Saving Password As Encrypted:** System never stores or uses decrypted passwords. If system will use input passwords, first of all system converts them to encrypted ones and compare it with values at databases.

Data Output		Explain	Messages	Notifications					
	user_id	user_name	surname	address	country	city	phone	user_password	
	[PK] integer	character varying (50)	character varying (50)	character varying (255)	character varying (20)	character varying (50)	character varying (20)	character (50)	
1	0	Mert	Tazeoğlu	Metropark Plus	Turkey	Ankara	5320000000	kp1J/7HDxXmwrjDhv2Eacw==	
2	1	Arzu	Tazeoğlu	Metropark Plus	Turkey	Ankara	[...]	hoBhRVPJbpckuYhsgvElag==	
3	3	Hüseyin	Tazeoğlu			Ankara		4AvFBijwV1iyWdhVPBralw==	
4	4	Engin	Demir		Turkey	Ankara		1y9T3JhMeseXskjyMoQZaw==	
5	5	Fuat	Akal		Turkey	Ankara		oHugqmX0DWAPjgAnuluXkw==	
6	7	Ahmet	Alkılınç		Turkey	Ankara		bQ0hfnakvTsFLyd9KoPd/g==	
7	6	Ali Baran	Taşdemir		Turkey	Ankara		wFhUndQZUBQDFMOhLyn0ZA==	
8	8	Usain	Bolt		Jamaika	Kingston		ZQbykwqmB4IHrlUc8twyrA==	
9	9	Michael	Jackson		USA	Los Angeles		FdilypzL9JhGX6RP2HA9zQ==	
10	10	Vladimir	Putin	Kremlin	Russia	Moscow		SWVvBqWYiw5JKZamBAAs4SQ==	
11	11	Donald	Trump	White House	USA	Washington D.C.		p8ZtpyHOJxYAxYkAsS2i7Q==	
12	12	Jack	Persistent	X. Avenue	USA	Washington D.C.		fwe6emgEJK0c2NxxLBAwjw==	

Image-4: User Table With Encrypted Passwords

**3- Authorization Module:** When you execute application, system checks whether you are an admin or a customer or a supplier. Then system automatically redirects you to correct Java form.

**At login screen in order to:**

**Login As Admin:** (name: Mert) (user\_id: 0) (password: admin123.)

**Login As Supplier:** (name: Alihan) (user\_id: 2) (password: kargaburun)

**Login As Customer:** (name: Smith) (user\_id: 13) (password: nopassson!)

**Note:** You can try another users & passwords too, they'll work.

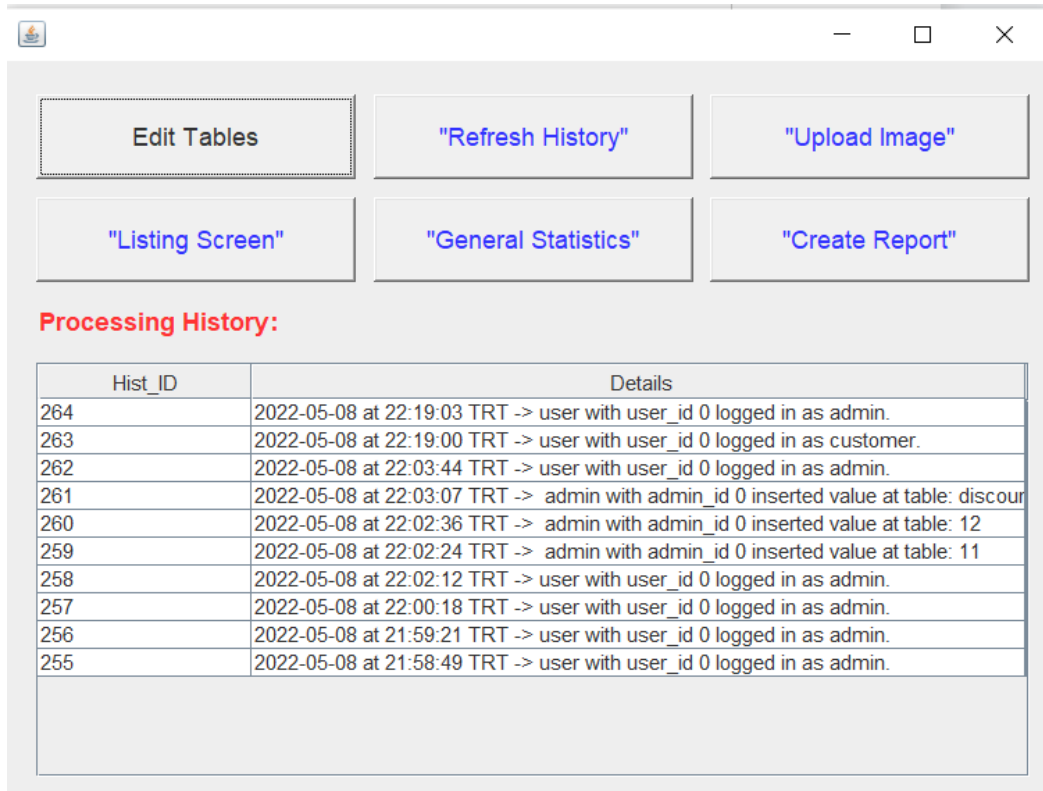


Image-5: Admin Interface

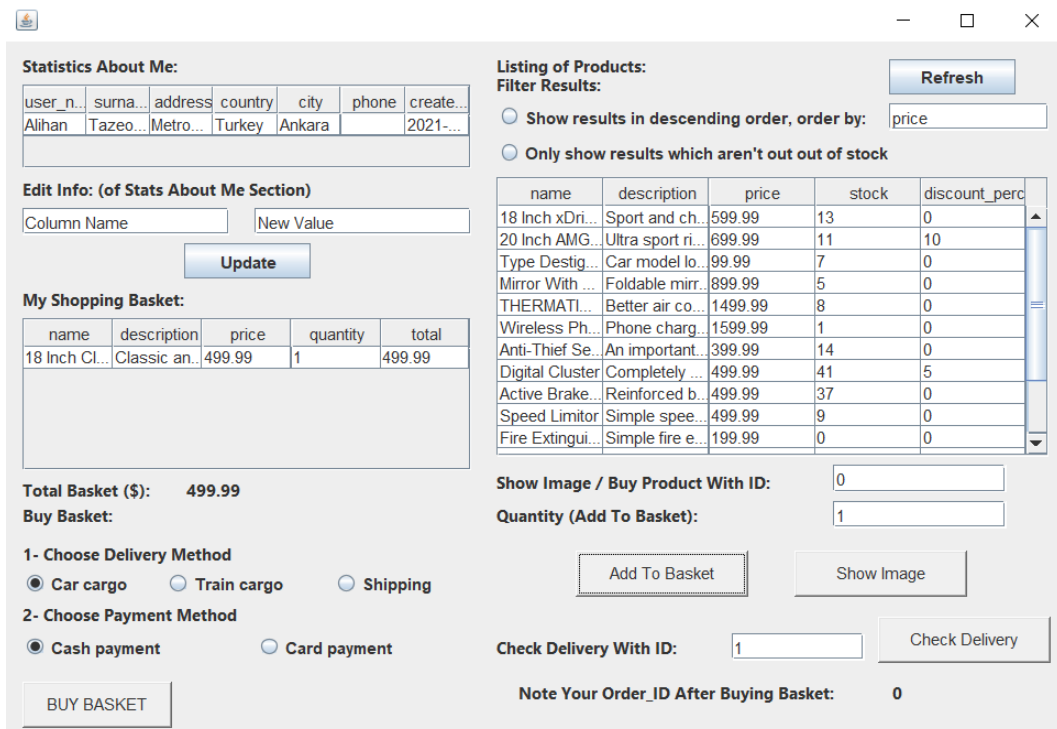


Image-6: User Interface

(Note: This form includes 891 lines of code also it has quite detailed exception handling. For example if you buy (order) items in your basket, then basket will be cleared, also adding to tables of payment, subclass of payment, delivery, delivery status, order will be done.)

**Statistics About My Company:**

id	company_name	category
13	Mercedes-Benz	General

**Update Stocks:**

Product ID:

New Value:

**Statistics About Stocks:**

company_na...	product_id	product_name	stock
Mercedes-B...	0	18 Inch Clas...	17
Mercedes-B...	1	18 Inch xDriv...	13
Mercedes-B...	2	20 Inch AMG...	11
Mercedes-B...	6	THERMATI...	8
Mercedes-B...	8	Anti-Thief Se...	14

**Statistics About Competition of Companies:**

company_name	total_stock
amg	64
bmw	97
M-Drive	64
Mercedes-Benz	97
Oto Line	49
Volkswagen	97
Volvo	97

**Filter Results About Competition:**

☐ Show results in descending order (order by)

☐ Only show results which aren't out of stock

☐ Only show top ... results:

**Update**

**Refresh**

Image-7: Supplier Interface

#### 4- Data Entry and Update Screens For Each Table In Database:

- > **Suppliers:** Can select, insert, update and delete 3-7 tables.
- > **Customers:** Can select, insert, update and delete 7-12 tables.
- > **Admins:** Can select, insert, update and delete ALL OF tables. Admins has got special interface for that (in order to access, click edit tables at admin interface)

**Database Statistics:**

tablename	number_of_records
history	270
cart_item	30
users	30
delivery_status	23
payment	19
delivery	18
product	15
customer	15
shopping_session	14
discount	13
each_payment	11

**List Items of Table:**

Table Name:  **Show Table**

user_id	user...	surna...	addre...	country	city	phone	user...	creat...
0	Mert	Taze...	Metro...	Turkey	Ankara	5320...	kp1J/...	2000...
1	Arzu	Taze...	Metro...	Turkey	Ankara		hoBh...	2020...
3	Hüse...	Taze...			Ankara		4AvF...	2021...
4	Engin	Demir		Turkey	Ankara		1y9T...	2011...
5	Fuat	Akal		Turkey	Ankara		oHug...	2017...
7	Ahmet	Alkılınç		Turkey	Ankara		bQ0h...	2019...
6	Ali Ba...	Taşd...		Turkey	Ankara		wFh...	2018...
8	Usain	Bolt	Jama...	Kings...			ZQby...	2020...

**Insert To Table:**

Table Name:

Parameter List:

Example: 17, 'Mert', 'Tazeoglu'

**Insert**

**Learn Max Value of Primary Key:**

Table Name:

Primary Key Name:

**Learn**

**Update Table:**

Table Name:

Column Name:

New Value:

Identifier Column:

Value of Idntf. Column:

**Update**

**Delete From Table:**

Table Name:

Identifier Column:

Value of Idntf. Column:

**Delete**

Image-8: Admins' Table Editing Interface  
(Manipulating All Tables Only With One Interface)

**5- Photo Entry Screen:** Unfortunately, this feature isn't supported. :(

**6- At Least 3 Listing Pages:**

- 1- At admin interface, processing history logs are listed. :) (image-5)
- 2- Users can list products and their shopping baskets at their interface.  
(image-6)
- 3- Admins can list all of tables with their "editing interface". (image-8)

**7- At Least 3 Reporting Screens:** Unfortunately, this feature isn't supported. :(

**8- At Least 3 Filtered Page:** Unfortunately, two of them are included.

- 1- At user interface, users can filter products. (Order them in ascending & descending order, not showing products which are out of stock etc.)  
(image-6)
- 2- At supplier interface, there is a listing screen about competition between companies. At there, suppliers can filter results. (Order them in ascending & descending order, limiting result number etc.) (image-7)

**9- Statistic Screens (At Least 10 Queries):** When you execute application,

- 1- At admin interface you can see statistics about tables (see image 8)
- 2- At supplier interface, at the left side there are 3 statistical tables from  
(see image 7)
- 3- At user interface, at the left side there are 2 statistical tables from  
(see image 6)
- 4- At admin interface, if you click general statistics there is a special interface about beneficial statistics (see image 9)





- As you can see, last 10 records show up as you wished.
  - Times of actions are recorded.
- Different types of users, user\_ids and different operation types (insert, login, delete etc.) are recorded.
  - You can refresh it “refresh history” button.