Table of Contents

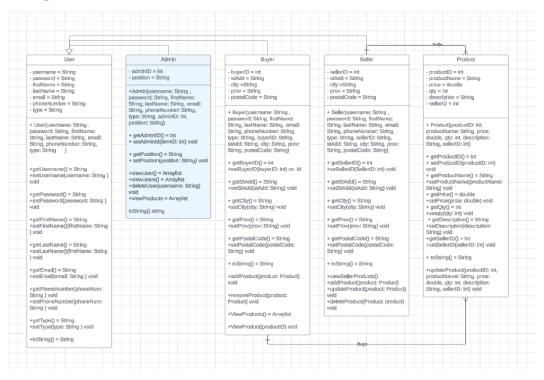
| Overview | 2 |
|---|----|
| Class Diagram | 3 |
| ER Diagram | 3 |
| Source Code Structure | |
| Development Standards | 4 |
| Installation: | 4 |
| Retrieving the source code from GitHub | 4 |
| Cloning the GitHub repository in VSCode | 5 |
| Adding the required library | 7 |
| Creating the Database | 9 |
| Creating the Tables | |
| Connecting the Database to your application | 12 |
| Running the code in VSCode | 13 |
| Using our App | 14 |
| Admin Operations | 14 |
| Seller Operations | |
| Buyer Operations | 21 |

Overview

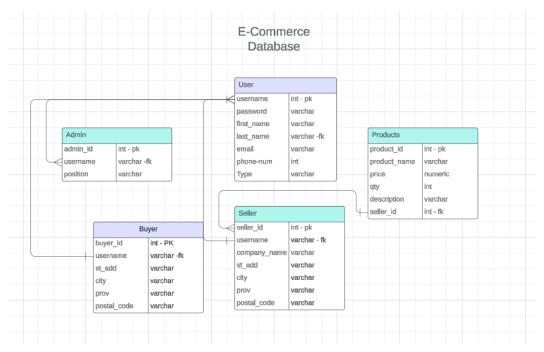
This application serves as an e-commerce system. To make it run optimally, we have created several classes.

- The User class is the parent of Admin, Seller and Buyer classes. It harbours everything that all three of these child classes have in common.
- The User DAO interacts with the database to query and update User data.
- The User Service facilitates interactions between the application and the database.
- The Admin class is extended from the User class and contains Admin-specific data. It allows you to view and delete users and all available products.
- The Admin DAO interacts with the database to query and update Admin data.
- The Admin Service facilitates interactions between the application and the database.
- The Buyer class is extended from the User class and contains Buyer-specific data. It allows you to view all available products or one specific product, and you can add or remove a product from the buyer's list.
- The Buyer DAO interacts with the database to guery and update Buyer data.
- The Buyer Service facilitates interactions between the application and the database.
- The Seller class is extended from the User class and contains Seller-specific data. It allows you to view, add, update or remove a product from the seller's list.
- The Seller DAO interacts with the database to query and update Buyer data.
- The Seller Service facilitates interactions between the application and the database.
- The Product class is the building block for any product in the system and allows you to update a product.
- The Product DAO interacts with the database to query and update Buyer data.
- The Product Service facilitates interactions between the application and the database.
- The Database Connection class allows us to connect to the Postgres database with our application.
- The Demo class serves as the main menu system that combines the whole project together.
- The SQL folder contains the create statements for all database tables.

Class Diagram



ER Diagram



Source Code Structure

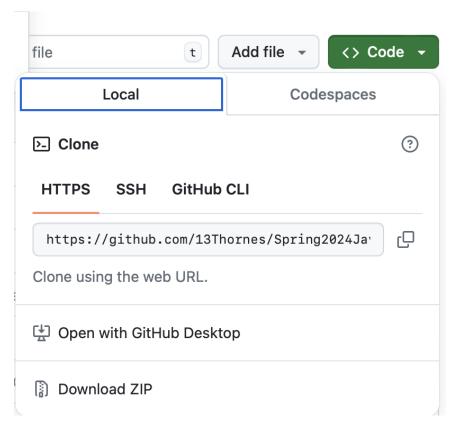
- The main code is all inside the SRC folder of the project.
- The SQL folder inside SRC contains create statements for the database tables.
- The lib folder contains postgres and bcrypt jar files required to run the project.

Development Standards

- We used consistent indentation with our code and kept the lines within a reasonable length.
- We kept our naming conventions simple with Classes being in "PascalCase" and variables and methods in "camelCase".
- We used both traditional and Javadoc comments to explain the code's purposes.
- We organized our code into methods and classes to make it more useable.

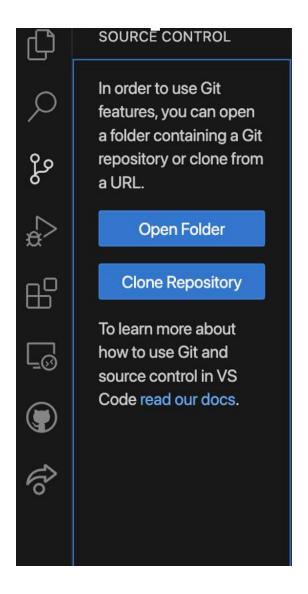
Installation:

Retrieving the source code from GitHub

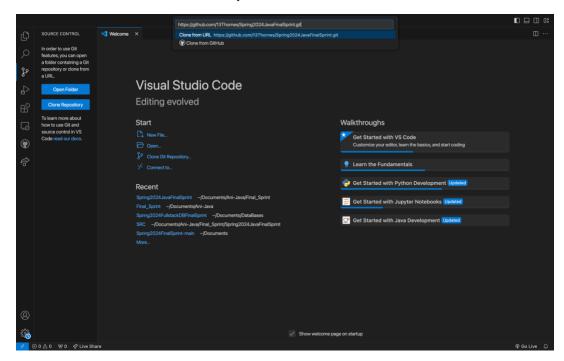


- 1. Go to https://github.com/13Thornes/Spring2024JavaFinalSprint
- 2. Click on the green <> Code dropdown menu
- 3. Copy the https url that appears, you will use it in a moment.

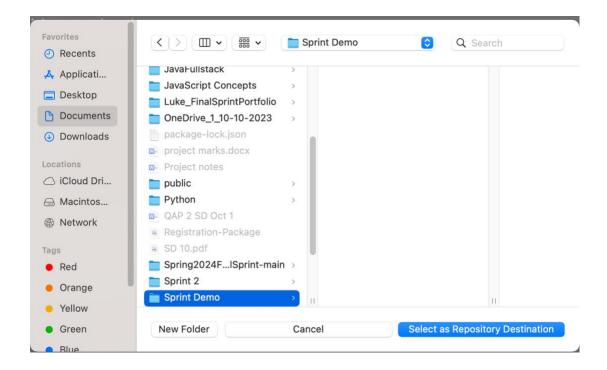
Cloning the GitHub repository in VSCode



- 1. Open a new window in VSCode.
- 2. Select the Source control symbol in the menu on the left.
- 3. Select the clone repository option.



- 4. Paste the GitHub URL you previously copied into the address bar at the top of the VSCode page.
- 5. Select Clone from URL.

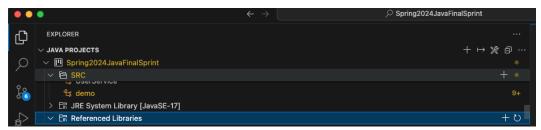


- 6. Select which file you would like the code to be stored in on your local computer.
- 7. Choose Select as Repository Destination.
- 8. Select Open.

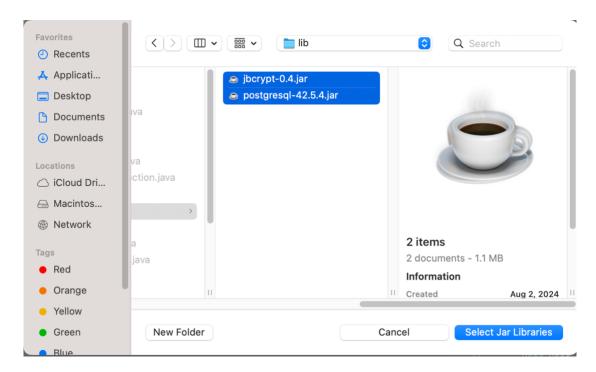
Adding the required library



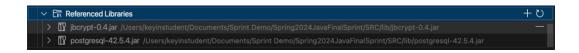
- 1. Select the Explorer tab on the left menu of VS code
- 2. Click on the new folder button at the top of the explorer menu, next to your file name.
- 3. Name your folder lib.



- 4. Locate the JavaProjects option at the bottom the explorer menu.
- 5. Click on the arrow to the left of it to expand the menu.
- 6. Click the plus sign next to Referenced Libraries option.



- 7. Select both the jbcrypt-0.4.jar and postgresql-42.5.4.jar files.
- 8. Click on Select Jar Libaries.

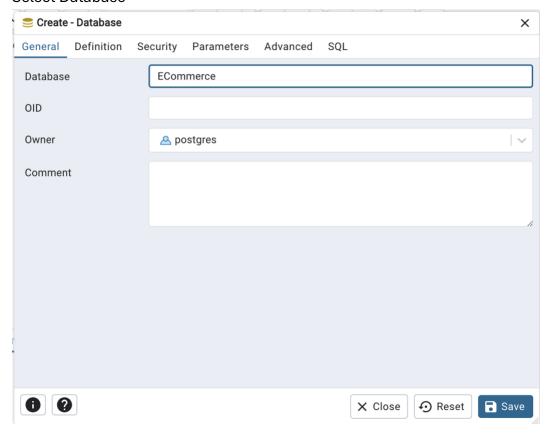


- 9. If you click on the arrow next to Referenced Libraries you should now see the jbcrypt and postgres files in white text.
- 10. If the filenames are in grey text, repeat steps 4 through 9 until they are displayed in white text.

Creating the Database

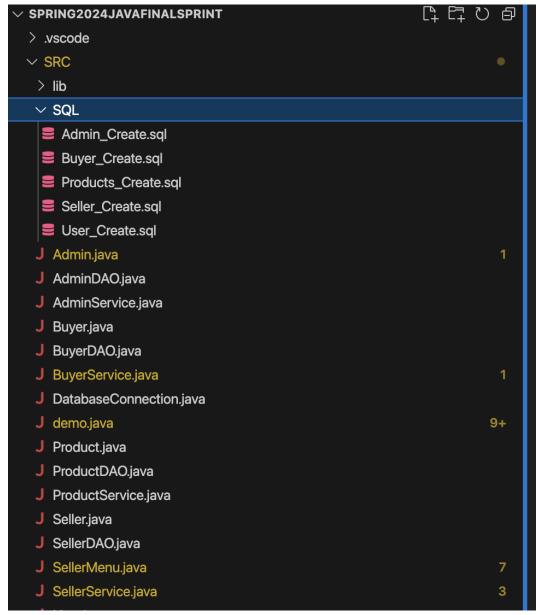


- 1. Go into PGAdmin
- 2. Sign into your account if needed.
- 3. Right click on Databases
- 4. Hover over Create
- 5. Select Database



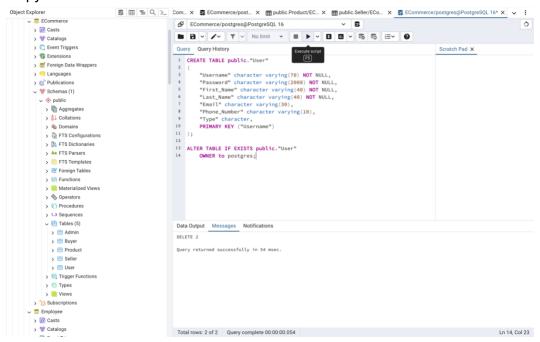
6. Name the Database "Ecommerce" and click save

Creating the Tables



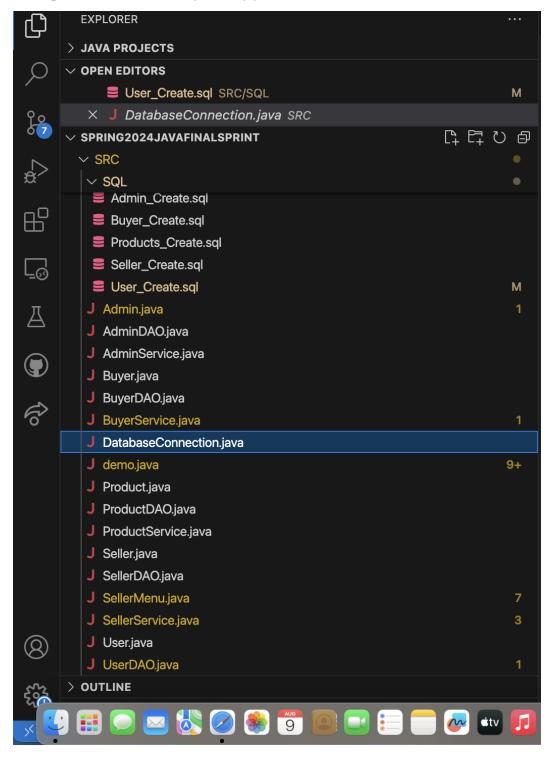
- 1. Switch to VSCode
- 2. Ensure you're in the explorer menu
- 3. Click on the SRC folder
- 4. Click on the SQL folder

- 5. Click on User_Create.sql
- 6. Copy the code in this file



- 7. Switch to PGAdmin
- 8. Open a new query window
- 9. Paste the code you copied from VSCode
- 10. Click on the triangle play symbol above your pasted text to run it
- 11. Repeat steps 5-10 for each file in the SQL folder

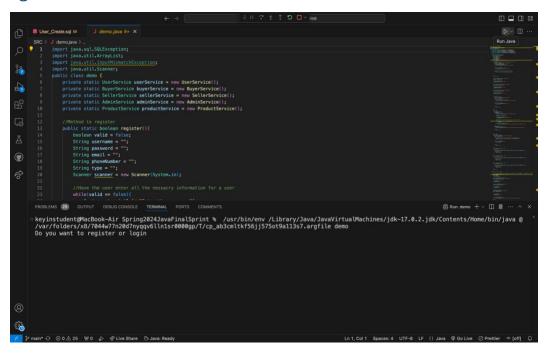
Connecting the Database to your application



- 1. Switch to VSCode
- 2. Click to DatabaseConnection.java in the explorer menu

- 3. Replace the field USER and PASSWORD with the username and password you use to sign into PGAdmin.
- 4. Save the file.

Running the code in VSCode



- 1. Ensure you are in the explorer option on the left menu.
- 2. Select the demo.java file from the left menu.
- 3. Select the triangle play symbol in the upper right corner. This will open the terminal and run the program.

Using our App

Admin Operations

Registering an Admin

```
Do you want to register or login
Enter the username
Mike
Enter the password
Mike
Enter Your first name
Mike
Enter your last name
Davis
Enter your email
md@gmail.com
Please enter your phone number
0987654321
Enter the type of account
Enter the Admin postion
Manger
User Created
```

- 1. Type in "R" and press enter
- 2. Type in the username you would like to use and press enter
- 3. Type in your desired password and press enter
- 4. Type in your first name and press enter
- 5. Type your last name and press enter
- 6. Type in your email and press enter
- 7. Type in your phone number and press enter
- 8. Type in "A" for an admin account and press enter
- 9. Type in the adminposition and press enter
- 10. The program will state that the User and Admin has been created
- 11. The welcome menu will be displayed

Logging in as a seller

```
Do you want to register or login
L
Enter your username
Hike
Enter your password
Hole come to the Admin Menu
1. Viser Users
3. List Products
4. Search Products
5. exit
Poster Search Sea
```

- 1. Type in "L" and press enter
- 2. Type in your username and press enter
- 3. Type in your password and press enter
- 4. The welcome menu will display

Viewing Users

```
Welcome to the Admin Menu
1. View Users
2. Delete Users
4. Search Products
5. exit
Please select option 1-5
1.
Name:Like Peddle
Username:Like, Email p@gmail.com, Phone number1234567890
Username:Like Peddle
Username:Bolly567, Email bp@gmail.com, Phone number1234567890
Type: A
Name:Dob Saith
Username:Bolly567, Email bsmitth@gmail.com, Phone number1234567890
Type: S
Name:Dob Saith
Username:Dob Saith
Username:Dob Saith
Username:Dob Saith
Username:Down, Phone number987654321
Type: S
Name:Down Lingwood
Username:Down, Email de@gmail.com, Phone number987654321
Type: S
Name:Down Lingwood
Username:Down, Email de@gmail.com, Phone number987654321
Type: A
Name:Down Email Saith
Username:Down, Email de@gmail.com, Phone number987654321
Type: A
Name:Down Email Saith
Username:Downy, Email de@gmail.com, Phone number987654321
Type: A
Name:Down Email Saith
Username:Bolly12, Email de@gmail.com, Phone number987654321
Type: A
Name:Down Email Saith
Username:Bolly12, Email de@gmail.com, Phone number987654321
Type: A
Name:Down Email Saith
Username:Somny45, Email de@gmail.com, Phone number987654321
Type: A
Name:Down Email Saith
Username:Som Memail Sa
```

- 1. Type in the number 1 and press enter
- 2. A list of all users will be displayed along with their seller information

Deleting Users

```
1. View Users
2. Delete Users
3. List Products
4. Search Products
5. exit
Please select option 1-5
Sam
Are you sure you wish to delete
Are you sure you wish to delete this user? This will also delete their product listings. Y/N
Y
Product Deleted
Seleter Deleted
Seleter option to the user you wish to delete their product listings. Y/N
Y
User and their product listings have been deleted.
```

- 1. Type in the number 3 and press enter
- 2. Type in the username of the User you want to delete
- 3. A message will display to ensure you want to delete the user
- 4. Type in Y for yes and press enter
- 5. The user and any associated products, if any will be deleted

Viewing all products

```
1. View Ubers
2. Delete Users
3. List Products
4. Search Products
5. osti
Remains select option 1-5
Remains select option 1-5
Remains Price: 9.0 GTY: 18
Name:Price: 9.0 GTY: 18
Name:Bob Smith
Name:Bob Smith
Ubername:Bob23, Email bsmith@gmail.com, Phone number1234567890
Address:sdfsdfv, Bob, NL, jSk3n2
```

- 1. Type in the letter 3 and press enter
- 2. A list of all products will be displayed

Searching a Product

```
1. View Users
2. Delete Users
3. List Products
4. Search Products
5. exit
Please select option 1-5
4
Enter the product Name
Hommer
Former
Former
Former
Frice: 9.8 QTY: 10
Name:Bob 25 mith
Username:Bob23, Entit bsmitth@gmail.com, Phone number1234567890
Address:sdfsdfv, Bob, NL, j5k3nZ
```

- 1. Type in the number 4 and press enter
- 2. Enter the name of the product you wish to search and press enter
- 3. The product will display

Seller Operations

Registering a Seller

```
Do you want to register or login
Enter the username
Billy12
Enter the password
Enter Your first name
Bill
Enter your last name
Smith
Enter your email bs@gmil.com
Please enter your phone number
0987654321
Enter the type of account
Enter the company name
Billy's Toy Store
Enter the street address
adawdfa sefasf
Enter the city
awefaf
Enter the provice
Please enter the postal code
S3G4S4
User Created
Seller Created
Welcome to the Seller Menu
1. View Seller Products
2. Add Product
3. Update Product
4. Delete Product
```

- 1. Type in "R" and press enter
- 2. Type in the username you would like to use and press enter
- 3. Type in your desired password and press enter
- 4. Type in your first name and press enter
- 5. Type your last name and press enter
- 6. Type in your email and press enter
- 7. Type in your phone number and press enter
- 8. Type in "S" for a seller account and press enter

- 9. Type in the company name and press enter
- 10. Type in your street address and press enter
- 11. Type in your email and press enter
- 12. Type in your province and press enter
- 13. Type in your postal code and press enter
- 14. The program will state that the User and Seller has been created
- 15. The welcome menu will be displayed

Logging in as a Seller

```
Do you want to register or login
L
Enter your username
Sammy23
Enter your password
Sam
Welcome to the Seller Menu
1. View Seller Products
2. Add Product
3. Update Product
4. Delete Product
Please select option 1-4
```

- 1. Type in "L" and press enter.
- 2. Enter your username and press enter
- 3. Enter your password and press enter
- 4. You will then see the welcome menu

Viewing seller products

```
Welcome to the Seller Menu
1. View Seller Products
2. Add Product
3. Update Product
4. Delete Product
Please select option 1-4
Pipe
Description: A Pipe
Price: 11.0 QTY: 10
Red Ball
Description: A red ball
Price: 6.0 QTY: 17
Hook
Description: A Hook
Price: 4.0 QTY: 3
Apple
Description: An Apple
Price: 5.0 QTY: 7
```

- 1. To view the seller's Products, type in the number 1 and press enter
- 2. A list of the seller's products will appear

Adding a product

```
1. View Seller Products
2. Add Product
3. Update Product
4. Delete Product
Please select option 1-4
2
Enter the product name
Nail
Enter the product description
A Nail
Enter the product price
5.99
Enter the product quantity
200
Product Created
```

- 1. When the Seller menu is displayed, type in the number "2" and press enter
- 2. Enter the product name and press enter
- 3. Enter the product description and press enter
- 4. Enter the product price and press enter
- 5. Enter the product quantity and press enter
- 6. The application will tell you a product has been created

Updating a product

```
Product Created
1. View Seller Products
2. Add Product
3. Update Product
4. Delete Product
Please select option 1-4
3
Enter the name of the product you wish to update
Nail

Enter the product name
Box of Nails
Enter the product description
A Box of Nails
Enter the product price
9.99
Enter the product quantity
30
Product Updated
```

- 1. When the Seller menu displays, type in the number "4" and press enter
- 2. Type in the name of the product you wish to update and press enter
- 3. Type in the new product name and press enter
- 4. Type in the new product description and press enter
- 5. Type in the new product price and press enter
- 6. Type in the new product quantity and press enter
- 7. The application will tell you that the product has been updated

Buyer Operations

Registering a Buyer

```
Do you want to register or login
Enter the username
David56
Enter the password
David
Enter Your first name
David
Enter your last name
Wright
Enter your email
dw@gmail.com
Please enter your phone number
1234567890
Enter the type of account
Enter the street address
asfaesfa
Enter the city
asaefaaf
Enter the provice
Please enter the postal code
D3S7G6
User Created
Buyer Created
```

- 12. Type in "R" and press enter
- 13. Type in the username you would like to use and press enter
- 14. Type in your desired password and press enter
- 15. Type in your first name and press enter
- 16. Type your last name and press enter
- 17. Type in your email and press enter
- 18. Type in your phone number and press enter
- 19. Type in "B" for a buyer account and press enter
- 20. Type in your street address and press enter

- 21. Type in your email and press enter
- 22. Type in your province and press enter
- 23. Type in your postal code and press enter
- 24. The program will state that the User and Buyer has been created

Logging in as a Buyer

```
Do you want to register or login
Enter your username
Luke12
Enter your password
Luke5341
The User Does Not Exist!
Do you want to register or login
Lukenl12
Invalid input, Please re-enter
Do you want to register or login
Enter your username
Lukenl12
Enter your password
Luke5341
Welcome Lukenl12
1: Veiw All Products
2: Product Search
3.Exit
```

- 5. Type in "L" and press enter.
- 6. Enter your username and press enter
- 7. Enter your password and press enter
- 8. You will then see the welcome menu

Note: If your user is not in the system, the program will tell you that the User does not exist. If the password is incorrect the program will tell you there's an invalid input. Please ensure you have created a User under this username and your password is correct before trying again

To view all products

```
Welcome David56
1: Veiw All Products
2: Product Search
3.Exit
```

3. After logging in you'll see the buyer menu appear

```
Welcome Lukenl12
1: Veiw All Products
2: Product Search
3.Exit
Pipe
Description: A Pipe
Price: 11.0 QTY: 10
Hammer
Description: A Hammer
Price: 9.0 QTY: 10
Red Ball
Description: A red ball
Price: 6.0 QTY: 17
Hook
Description: A Hook
Price: 4.0 QTY: 3
Apple
Description: An Apple
Price: 5.0 QTY: 7
1: Veiw All Products
2: Product Search
3.Exit
```

- 4. To view all Products, type in the number 1 and press enter
- 5. A list of all available products will appear

Searching a product

```
1: Veiw All Products
2: Product Search
3.Exit
2
Enter the product Name
Hammer
Hammer
Description: A Hammer
Price: 9.0 QTY: 10
1: Veiw All Products
2: Product Search
3.Exit
```

- 1. Once you log in, the welcome menu will appear
- 2. To search for a product, type in the number 2 and press enter
- 3. If the product exists, it will then display the product information

Exiting to the main menu

- 1. While the welcome menu is displayed, type in the number 3 and press enter
- 2. You will be directed to the main menu

Our team thanks you for using our E-commerce app. We appreciate your patronage.