

API Project: Shopaholic

1. Bank Interface

The screenshot shows a web browser window with the URL `localhost:3001/register/redirect=`. The page is titled "Sust Bank" and features a "Sign Up" form. The form includes input fields for "Name" (filled with "Humayun Ahmed"), "Email Address" (filled with "nuhashpolli@gmail.com"), "Password" (masked with dots), and "Confirm Password" (also masked with dots). A "Register" button is located below the form. At the bottom of the form, there is a link: "Have an Account? [Login](#)". The footer of the page reads "Copyright © Bank".

Figure 1: Users, E-commerce admin, and Supplier must have a Bank account for transactions

The screenshot shows the "Your Transactions" page for the user "Humayun Ahmed". The page features a table with the following columns: "Transaction Id", "Sender", "Receiver", "Amount", and "Timestamp". The table is currently empty. The footer of the page reads "Copyright © Bank".

Transaction Id	Sender	Receiver	Amount	Timestamp
----------------	--------	----------	--------	-----------

Figure 2: User named "Humayun Ahmed" created an account. Home screen shows all the transactions made by that user. As the user has no transactions yet, that's why Transaction table is empty

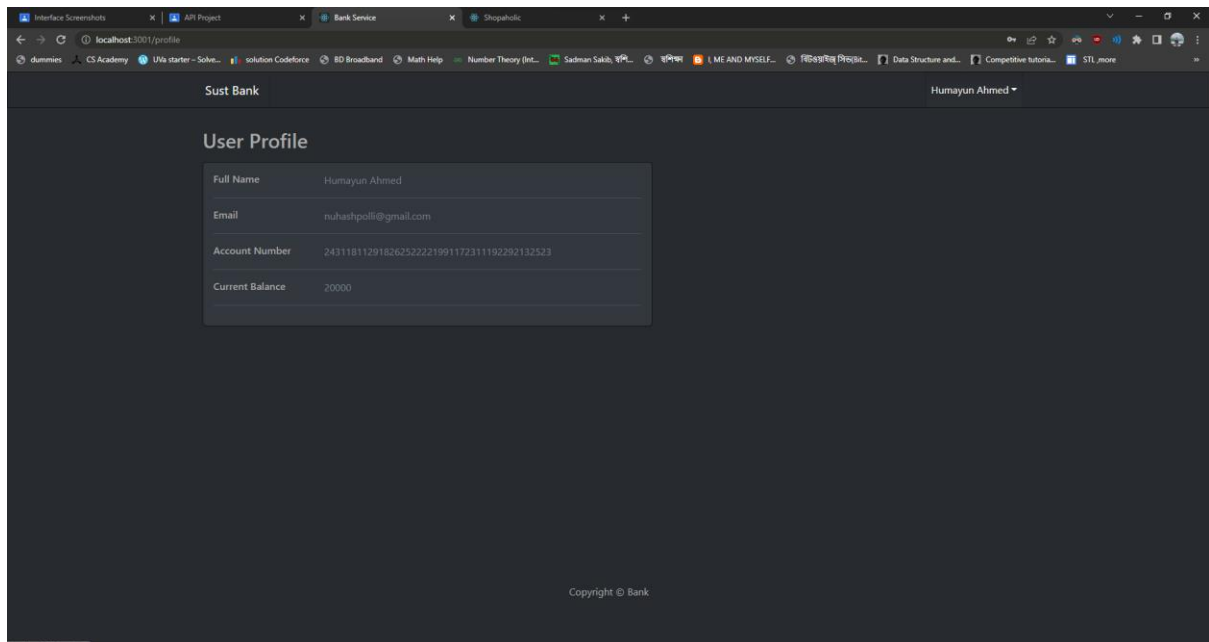


Figure 3: User profile shows all the details such as Full Name, Email, Account Number, and Current Balance. User will use the Account number later to Register in the E-Commerce with Bank account. Initially, A new user is deposited with \$20000.

2. E-Commerce Interface

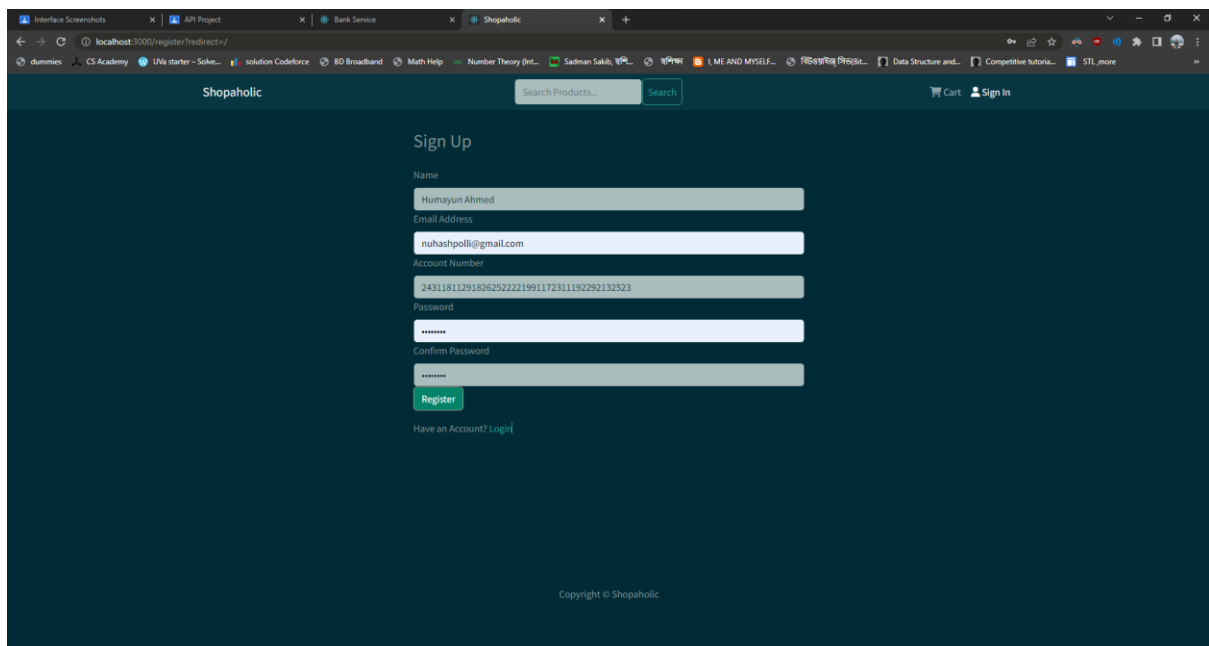


Figure 4: User has to create an account to the E-Commerce using bank account number which he/she is provided after creating an account in the bank

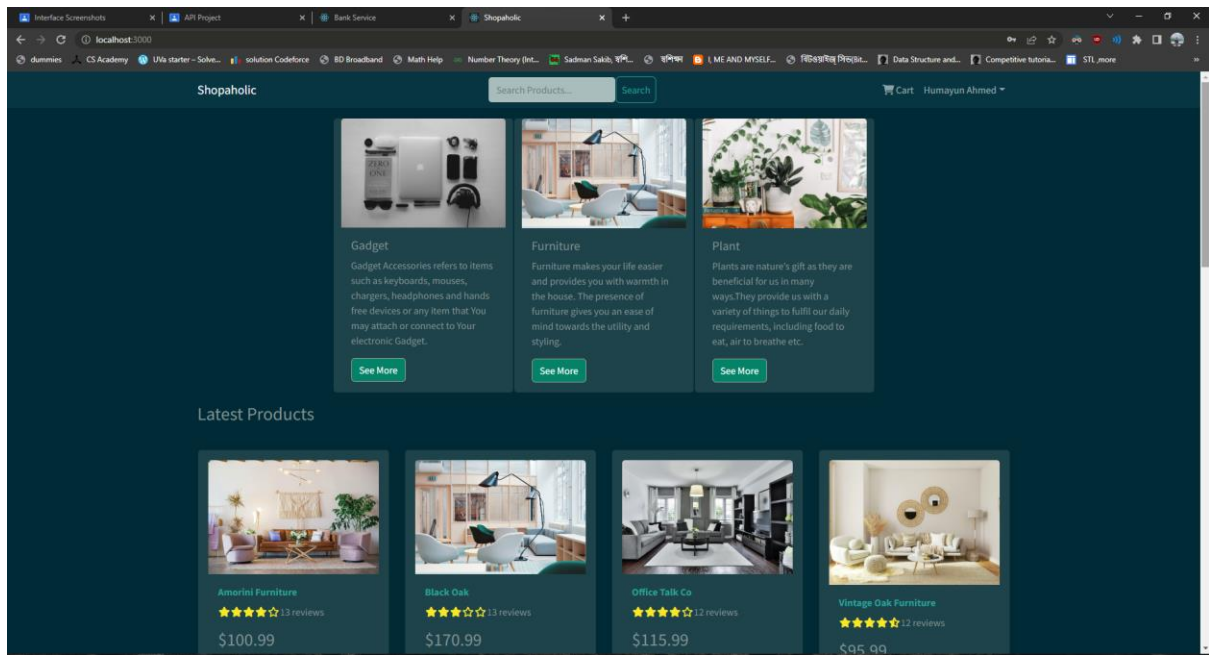


Figure 5: In Home screen, user can see all the products and there are products of 3 categories: Gadget, Furniture, Plant. To see product of a particular category, user have to click on the see more button.

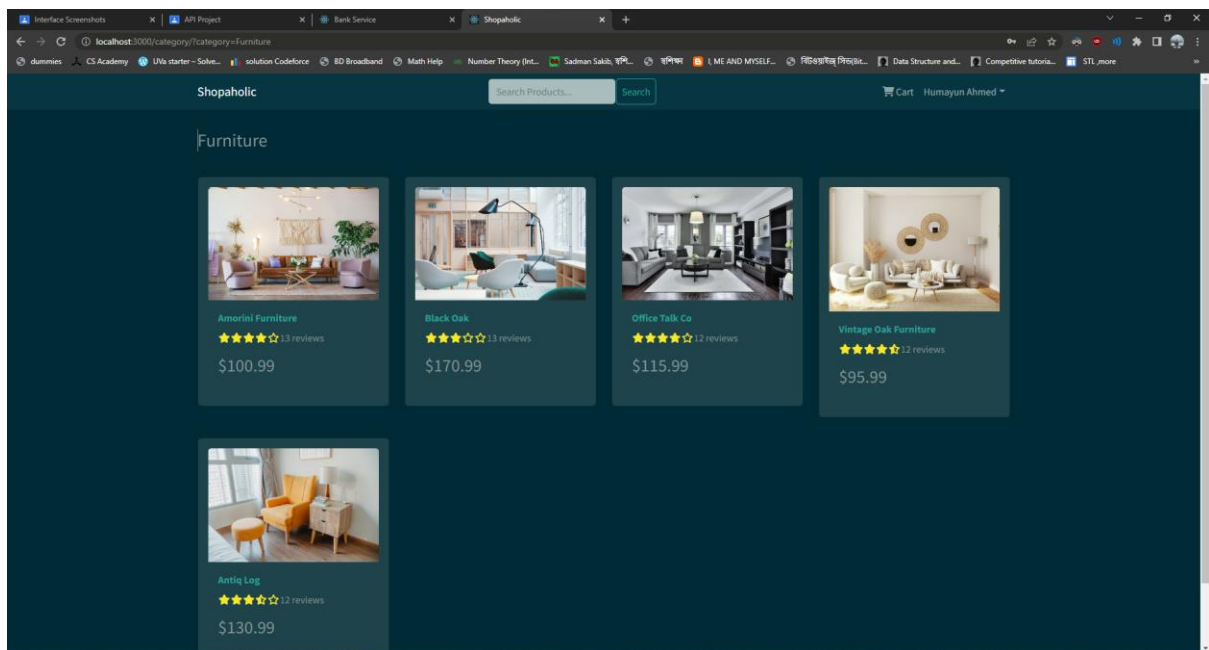


Figure 6: If the user selects the see more button of Furniture category, he can see all the products of this category. If he chooses another category, he can see the corresponding product of this category.

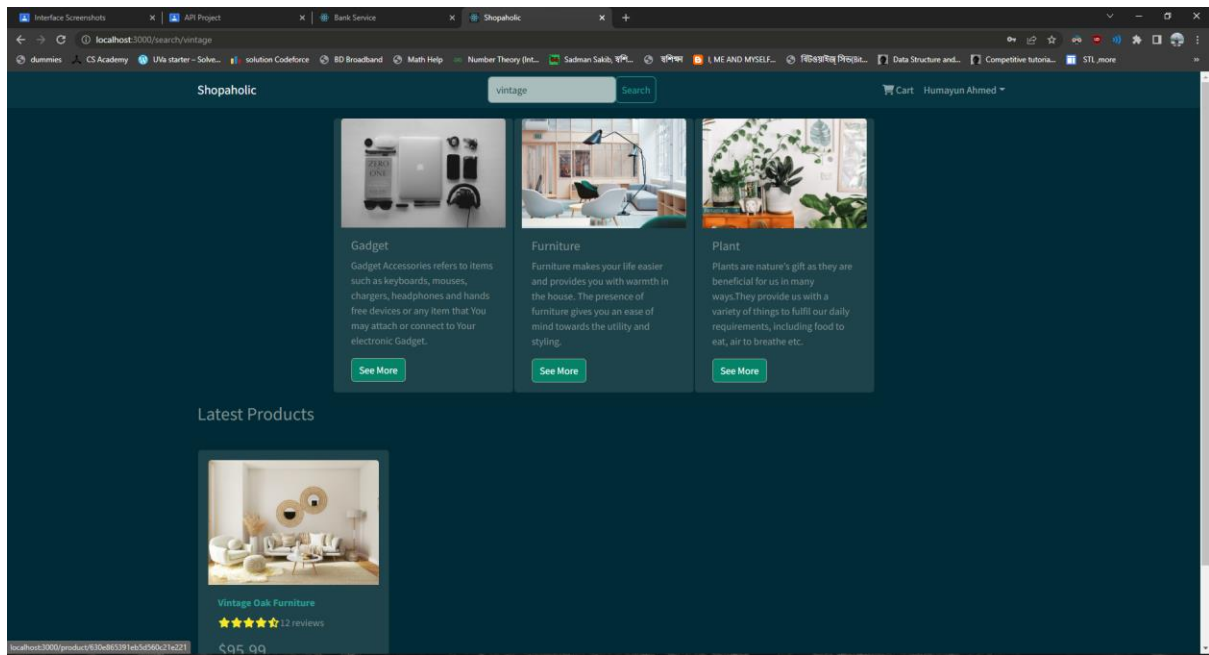


Figure 7: User can search a product. For example, here we have searched with the keyword "vintage" and we have found the product whose name contains the keyword "vintage"

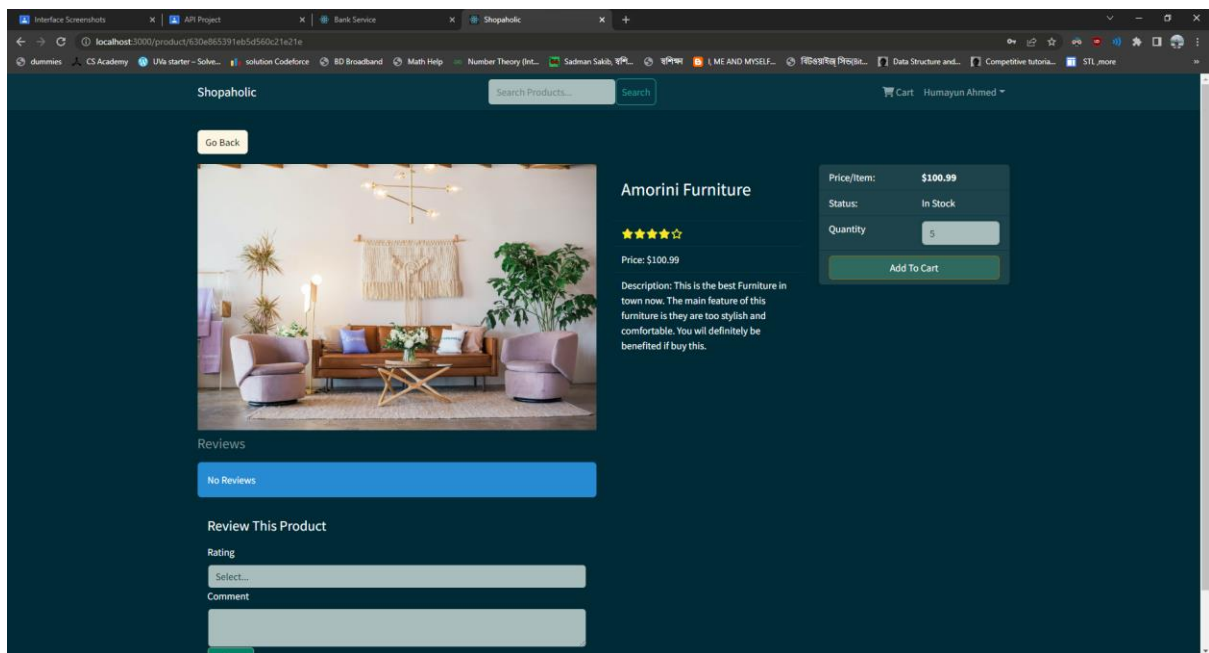


Figure 8: After clicking on a product, we can see the product details and we can add this product to the cart.

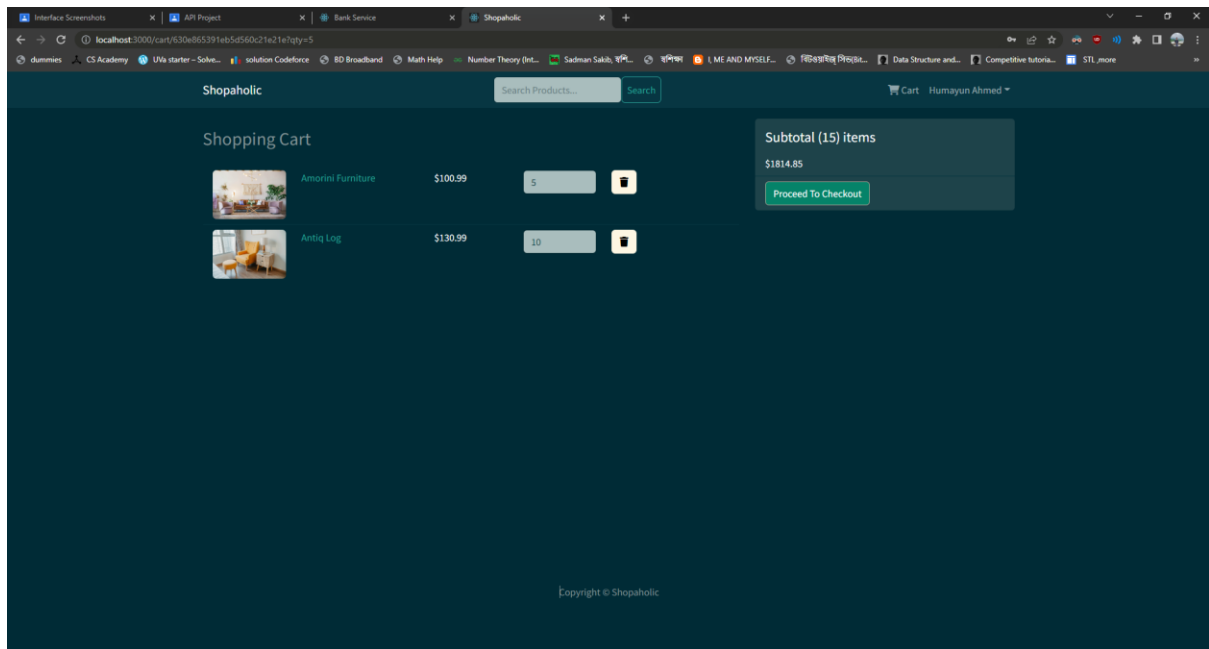


Figure 9: We have added two products to the cart. Now we can proceed to checkout.

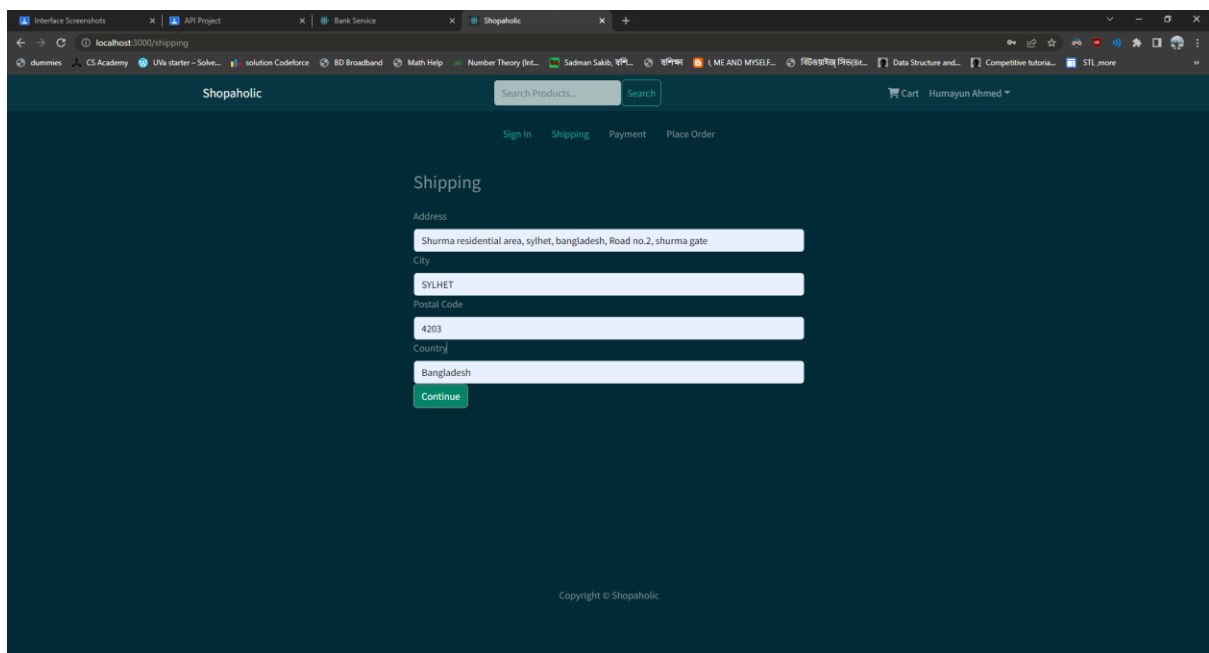


Figure 10: After proceeding to checkout, we have given shipping address.

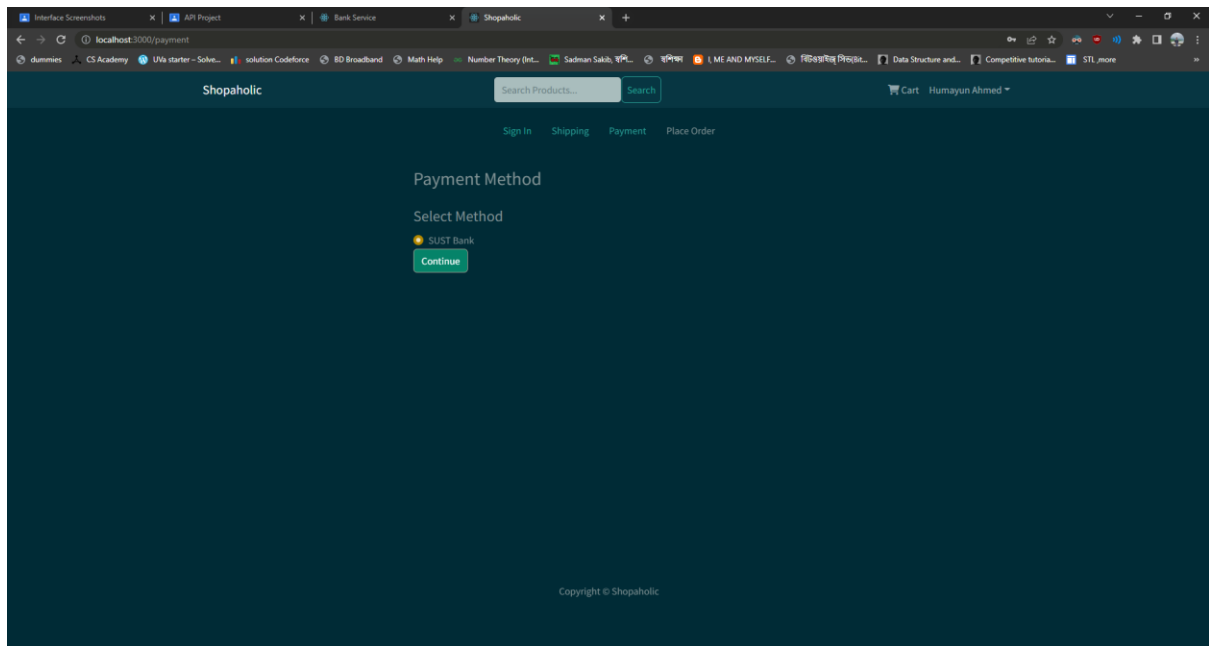


Figure 11: Now we have to select payment method. We pay through the bank API named SUST Bank.

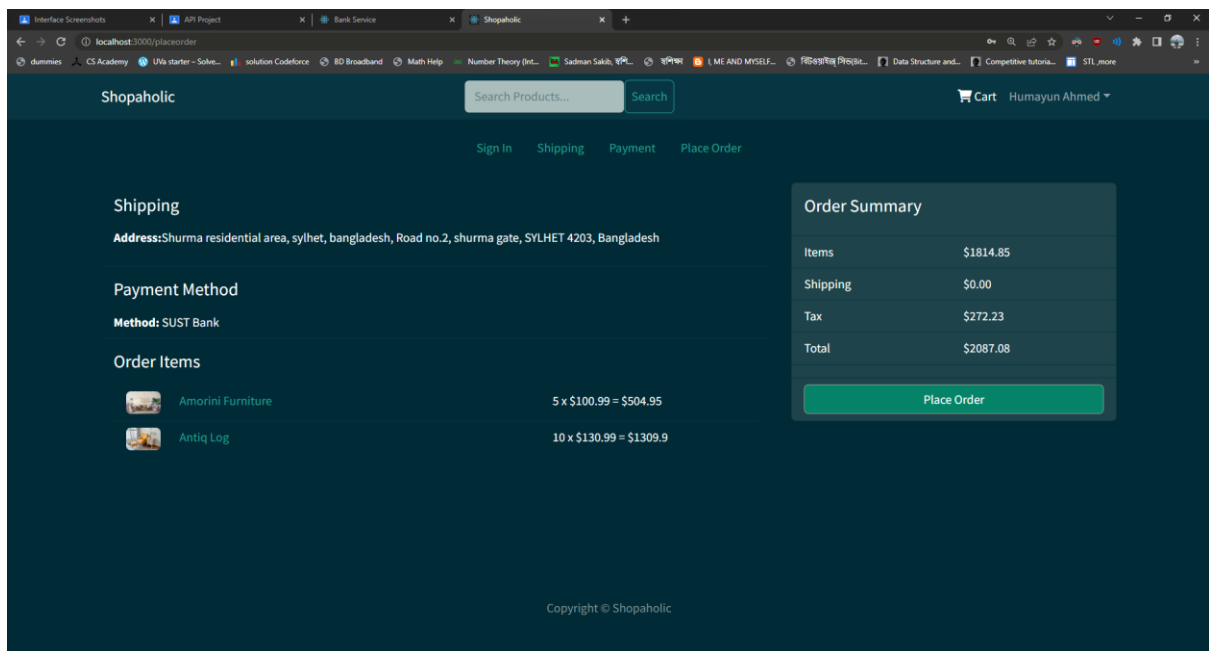


Figure 12: We can see the order summary here and total amount is calculated, and user can place an order here.

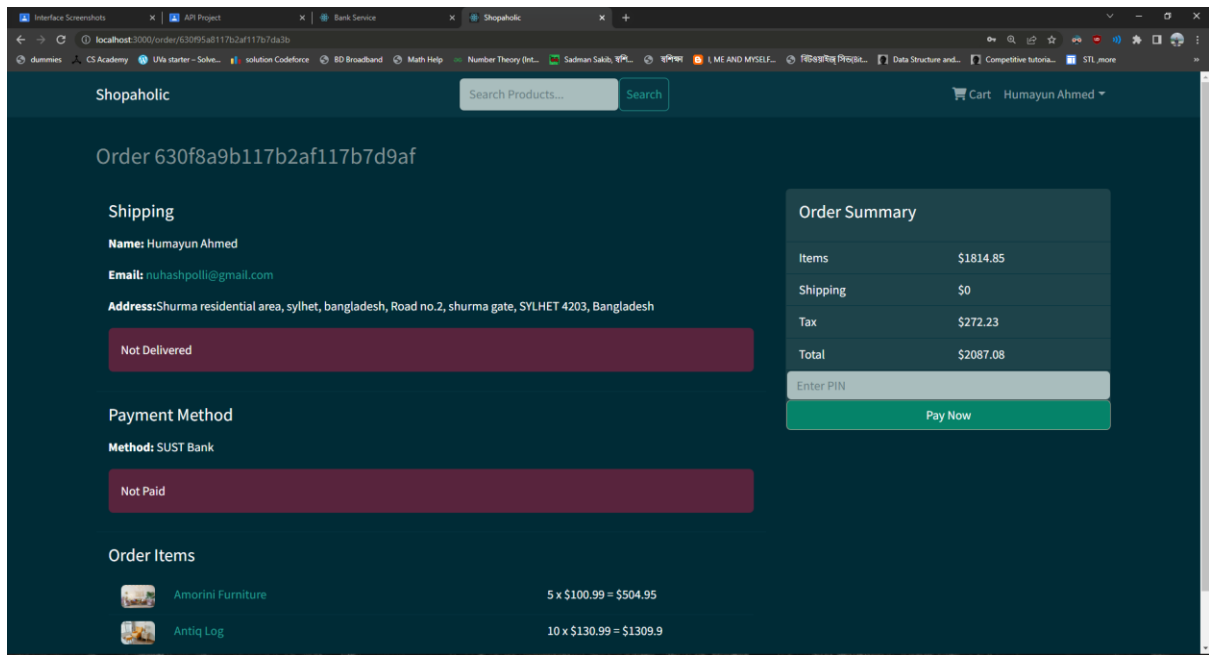


Figure 13: As we have not paid yet, so it's showing 'not paid' and 'not delivered'. We must give a valid pin to make a successful payment.

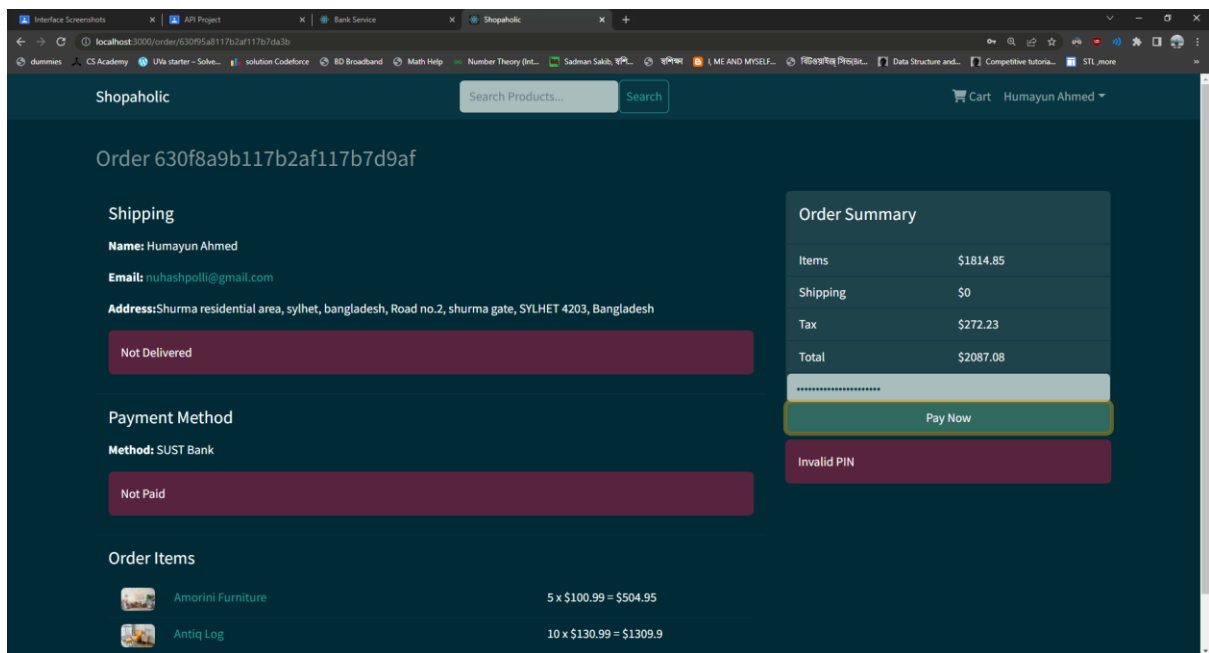


Figure 14: As we have not given a valid pin, so bank API responses with an error message.

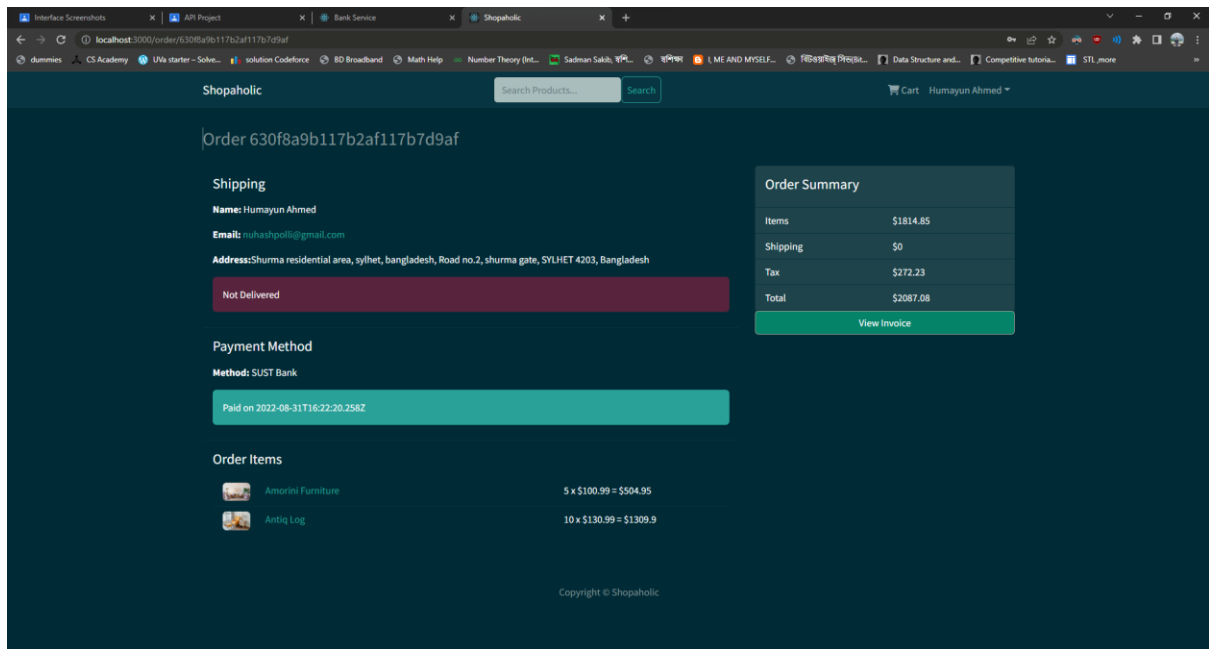


Figure 15: After giving a valid pin, user will pay to E-Commerce through bank API. Bank API will check if the transaction is possible by checking the sender's current balance and if it's possible, the bank API accepts the transaction and responses with a transaction id to the E-Commerce. The E-Commerce then uses this transaction id to create an invoice. By clicking on the "View Invoice" button, we can see the invoice which was generated after a successful transaction.

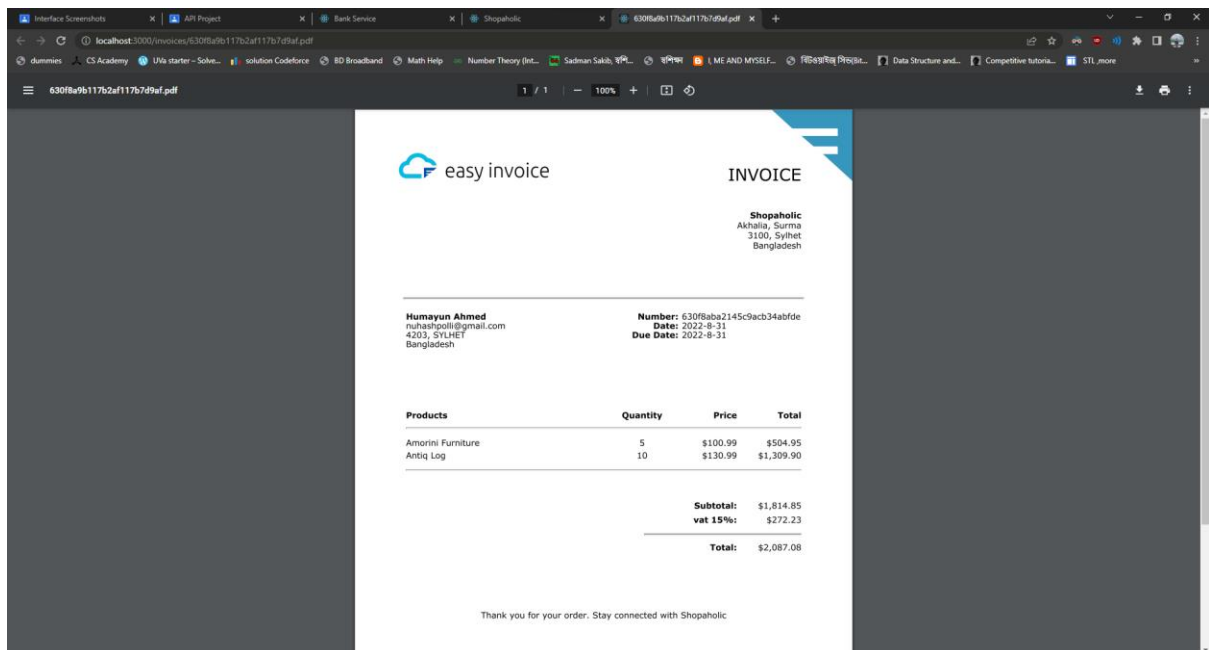


Figure 16: We can download the invoice also.

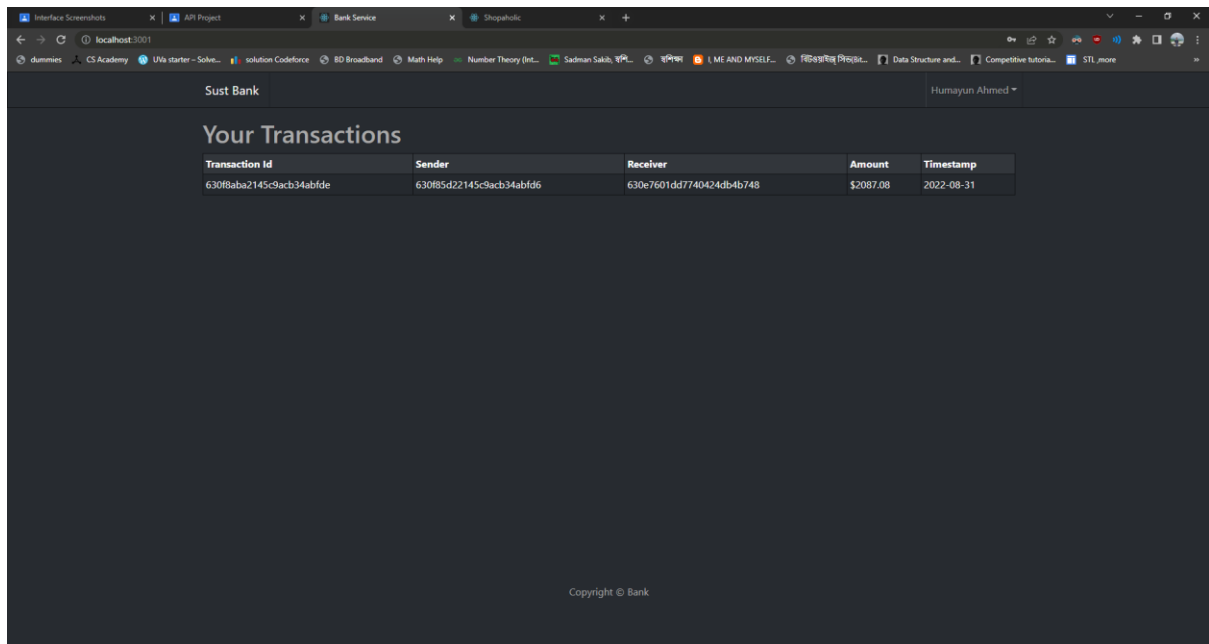


Figure 17: We can see the transaction details here.

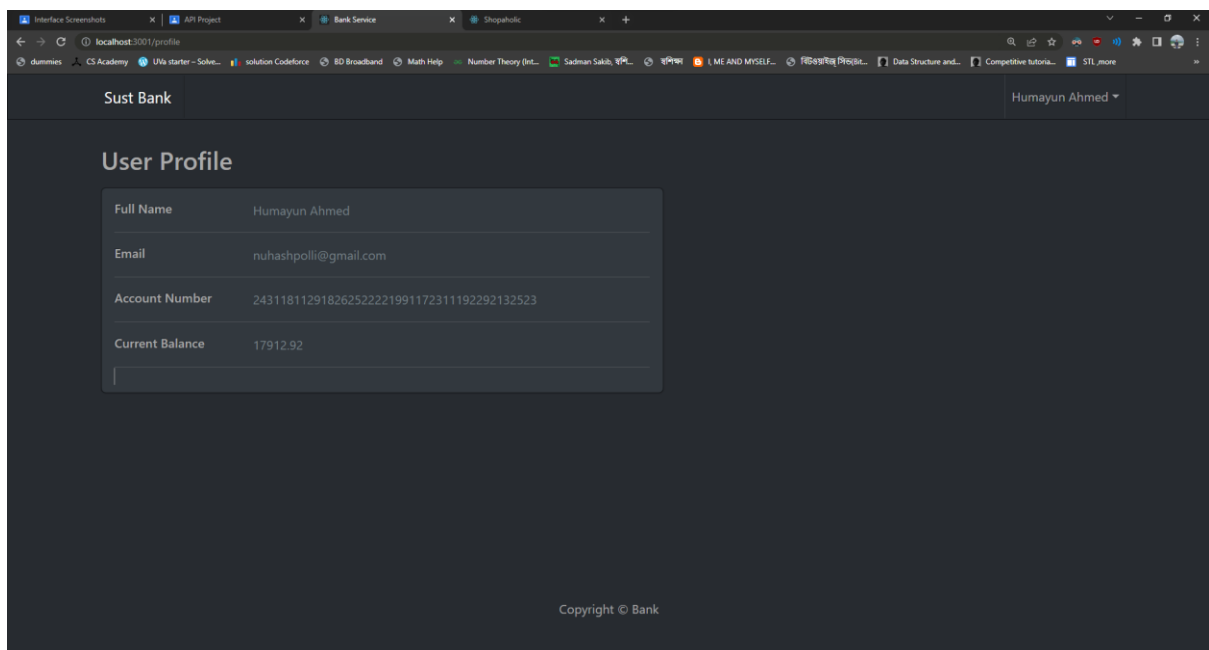


Figure 18: Now we can see after the transaction, the user balance is deducted.

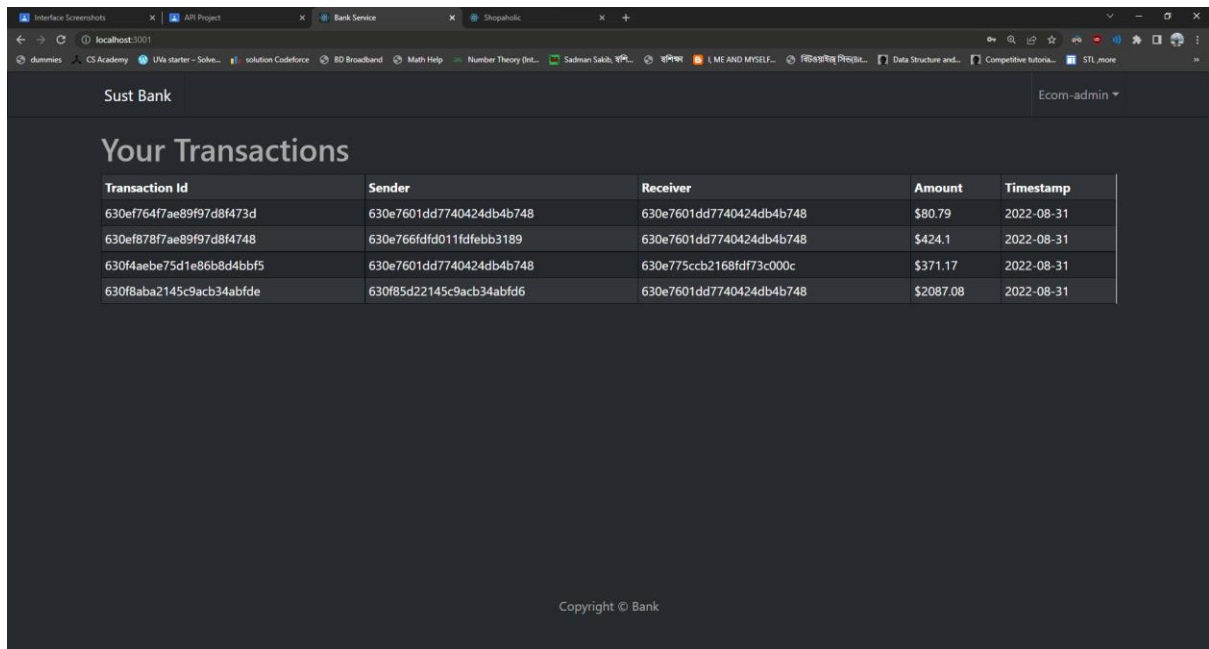


Figure 19: We can see the E-Commerce admin's transactions here. The last transaction is the transaction which we have made few seconds earlier.

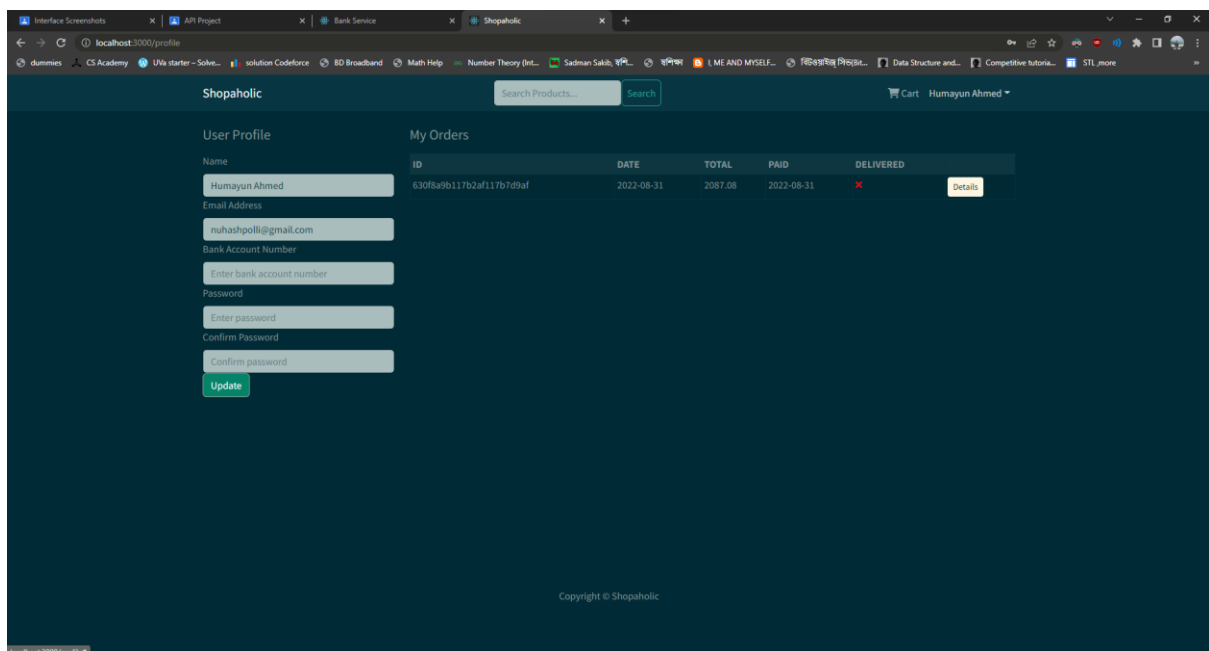


Figure 20: As we have made a successful transaction, the paid status is updated but delivered status is not updated yet because E-Commerce still didn't pay to the supplier and the supplier still didn't deliver the product. We can also update a user profile from here.

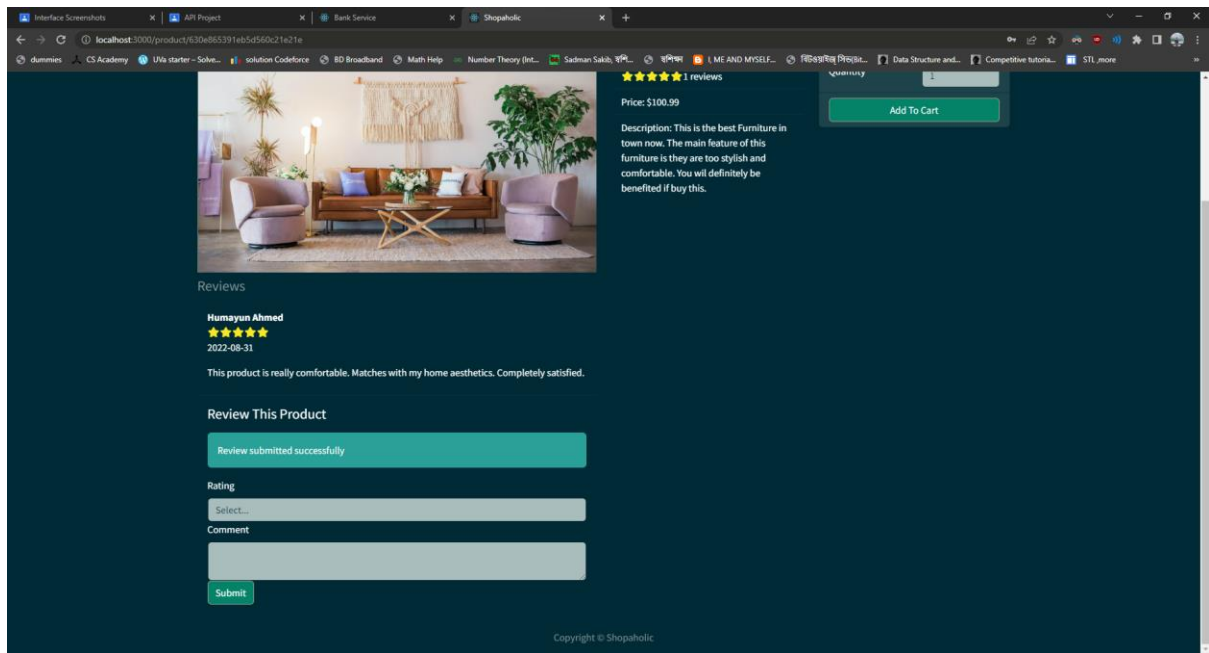


Figure 21: A user can write a review of a product and give a rating to the product which is labelled from 1 to 5.

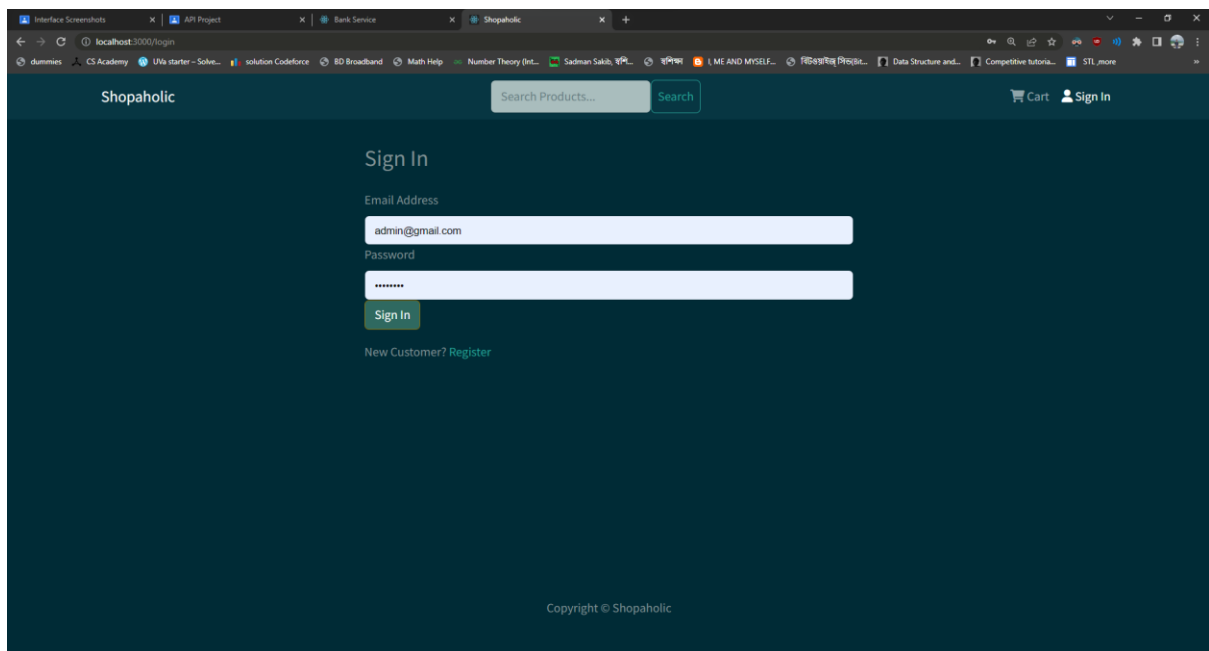


Figure 22: Now we are logging into 'E-Commerce admin' account because only admin can pay to the supplier.

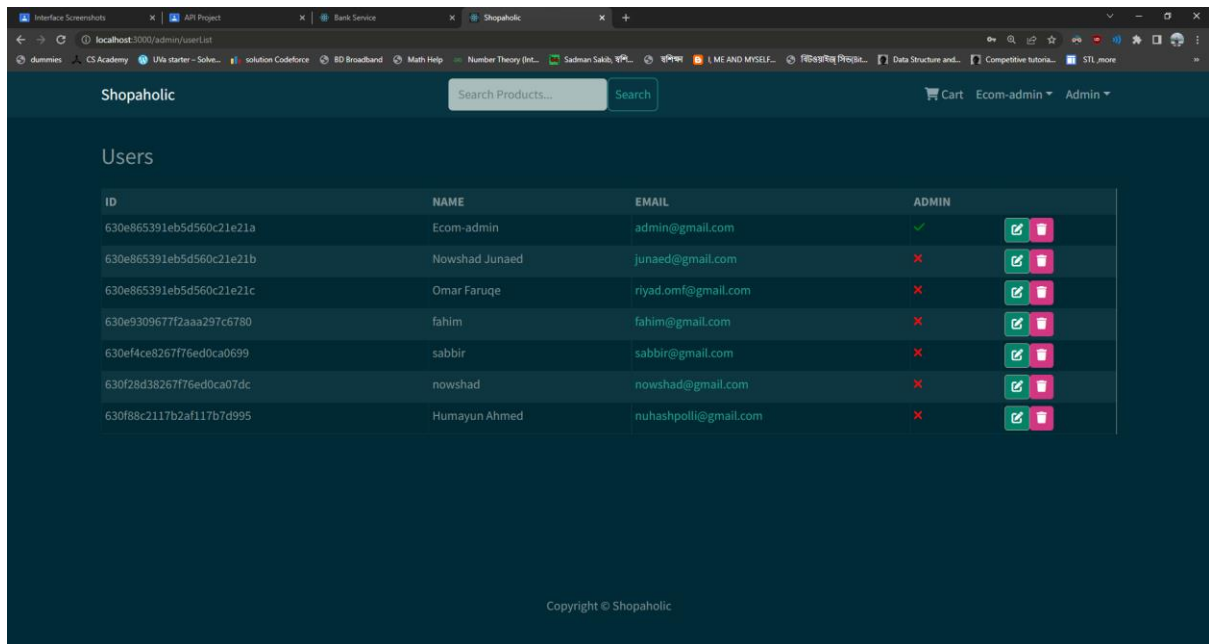


Figure 23: An admin can see all the user list and can update and delete a user if the user breaks E-Commerce policy.

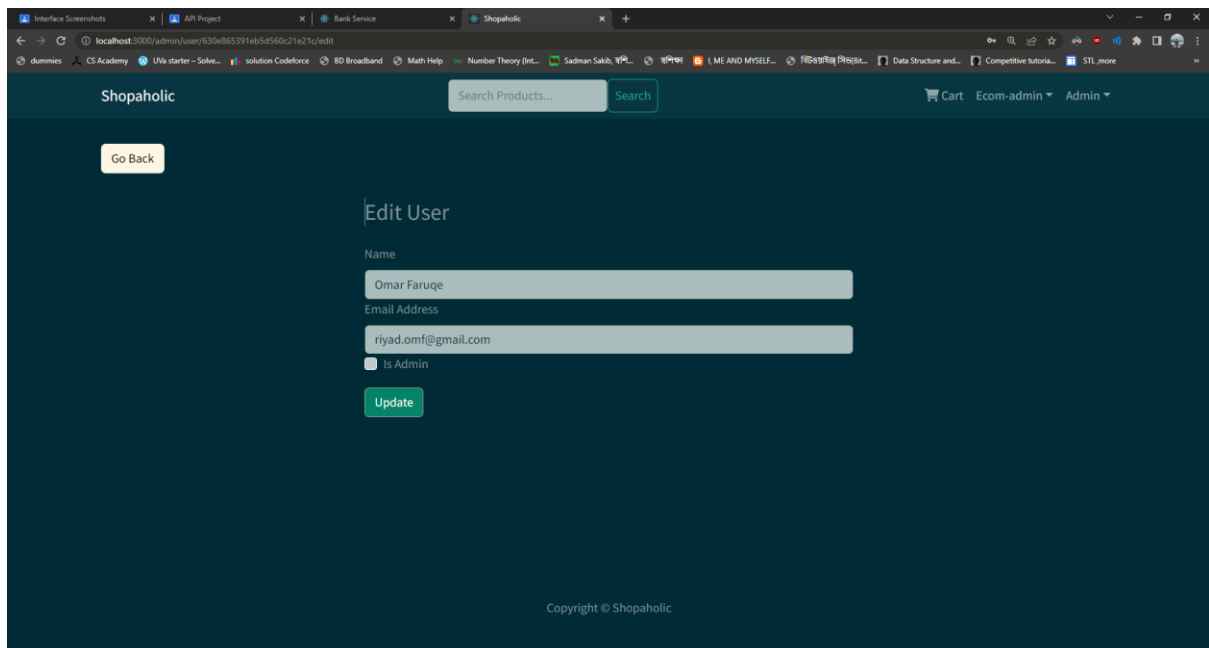


Figure 24: Admin can make another user 'admin'.

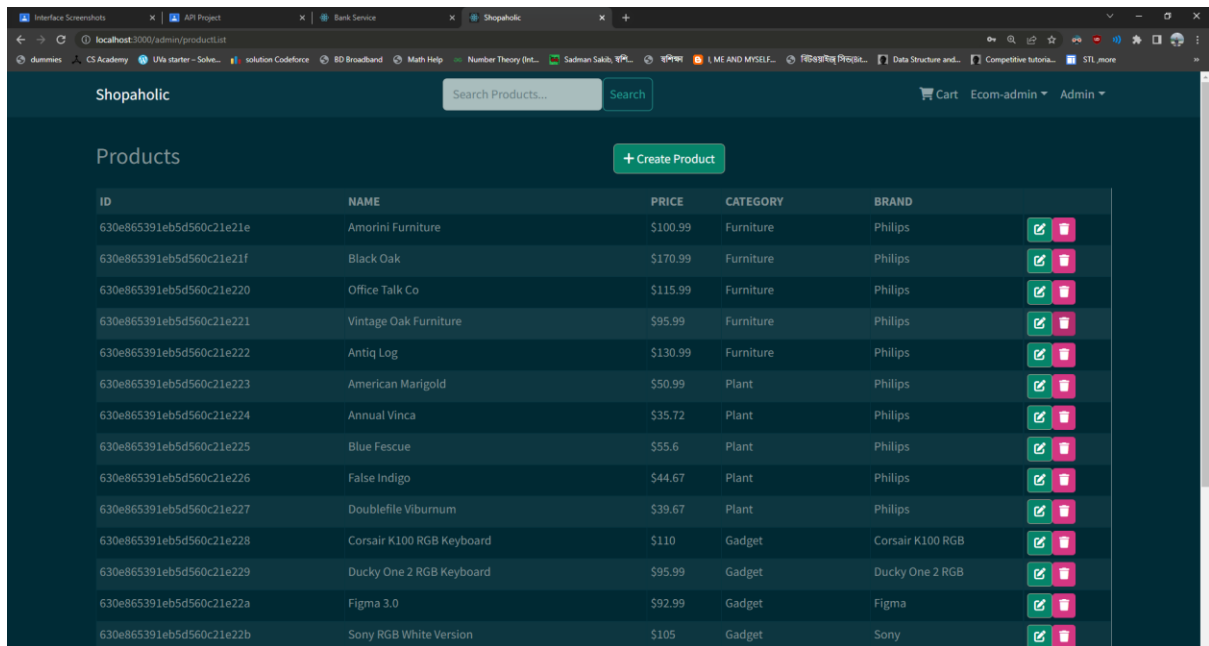


Figure 25: Admin can see the product list here and can update, delete, and create products.

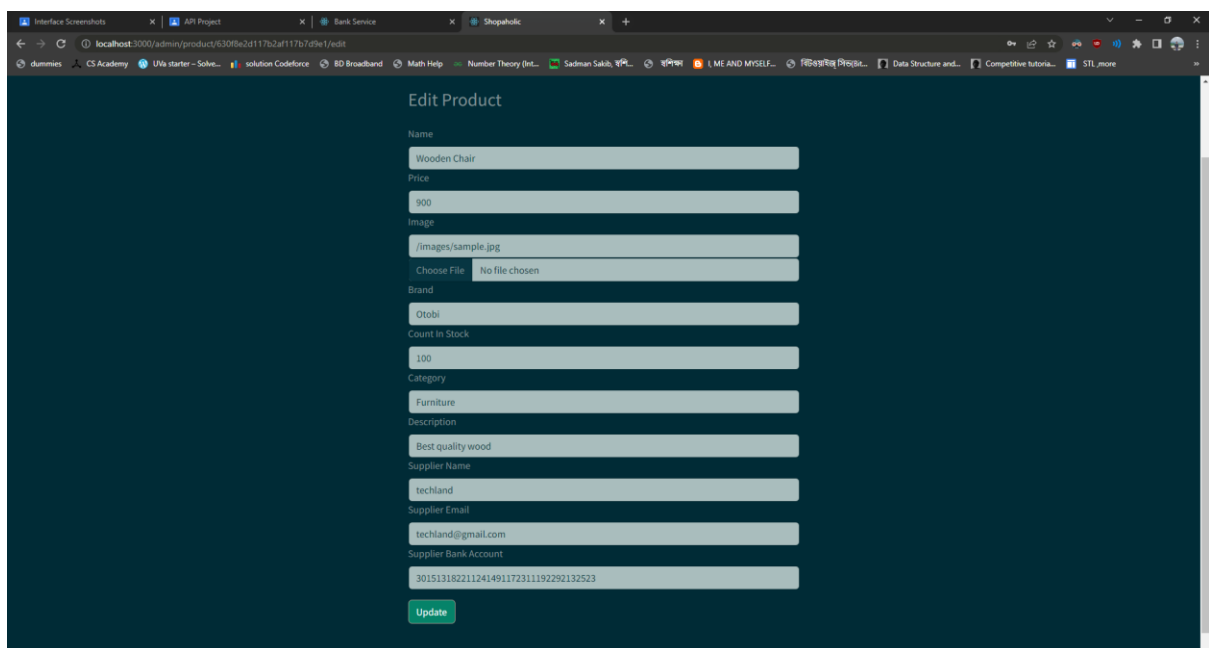


Figure 26: Admin can create a product by giving necessary information.

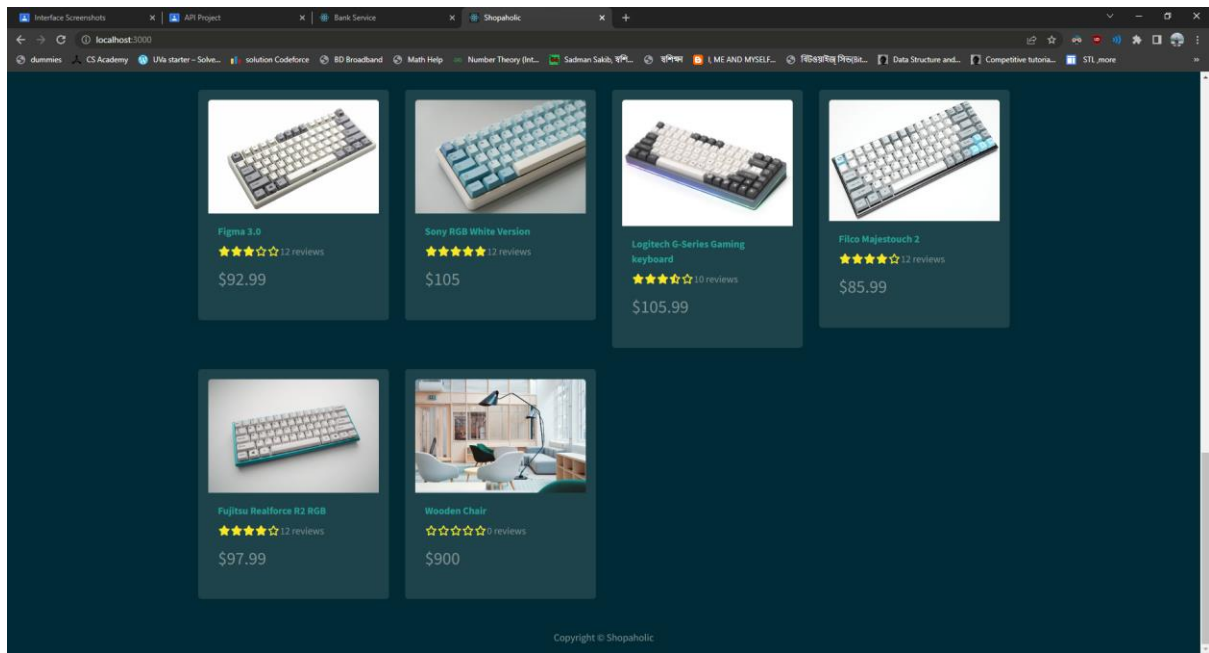


Figure 27: The product has been created, and we can see the product named "Wooden Chair" which admin has created just now.

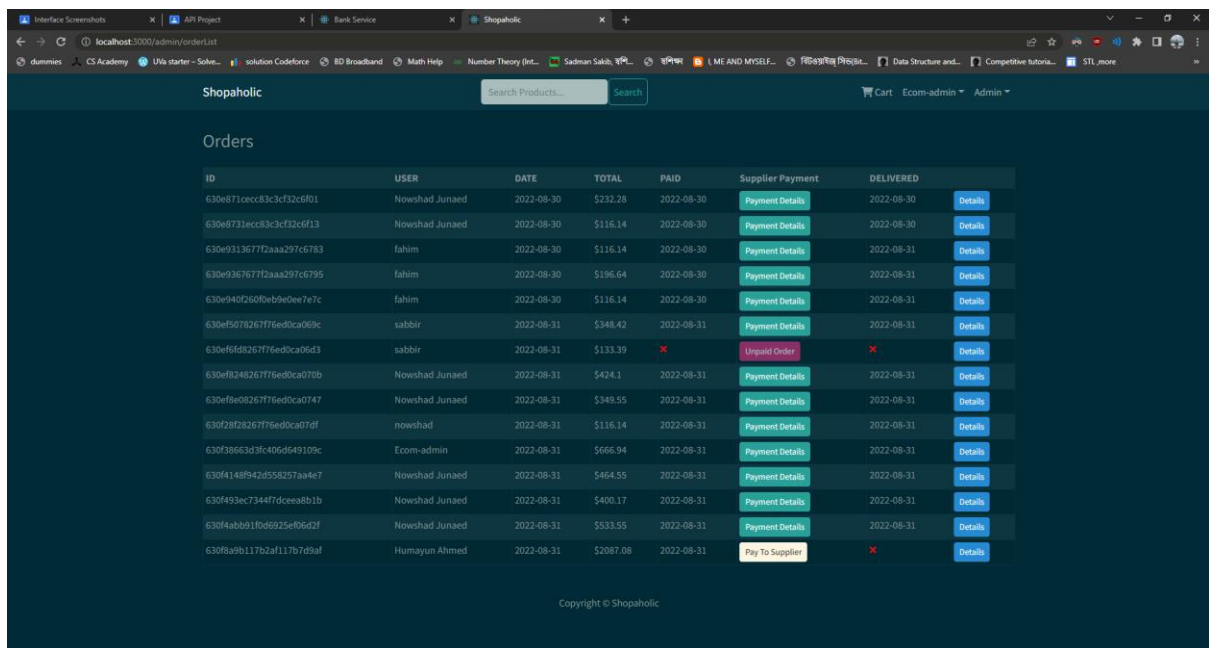


Figure 28: Admin can see the order list here and by clicking on details admin can see the order details. Admin must pay the supplier to deliver the product to the user. To pay supplier admin has to click on "Pay to Supplier" button. "Unpaid Order" text means user has not still paid for the order. And "Payment Details" button means admin has already paid the supplier and supplier has delivered the product to the user.

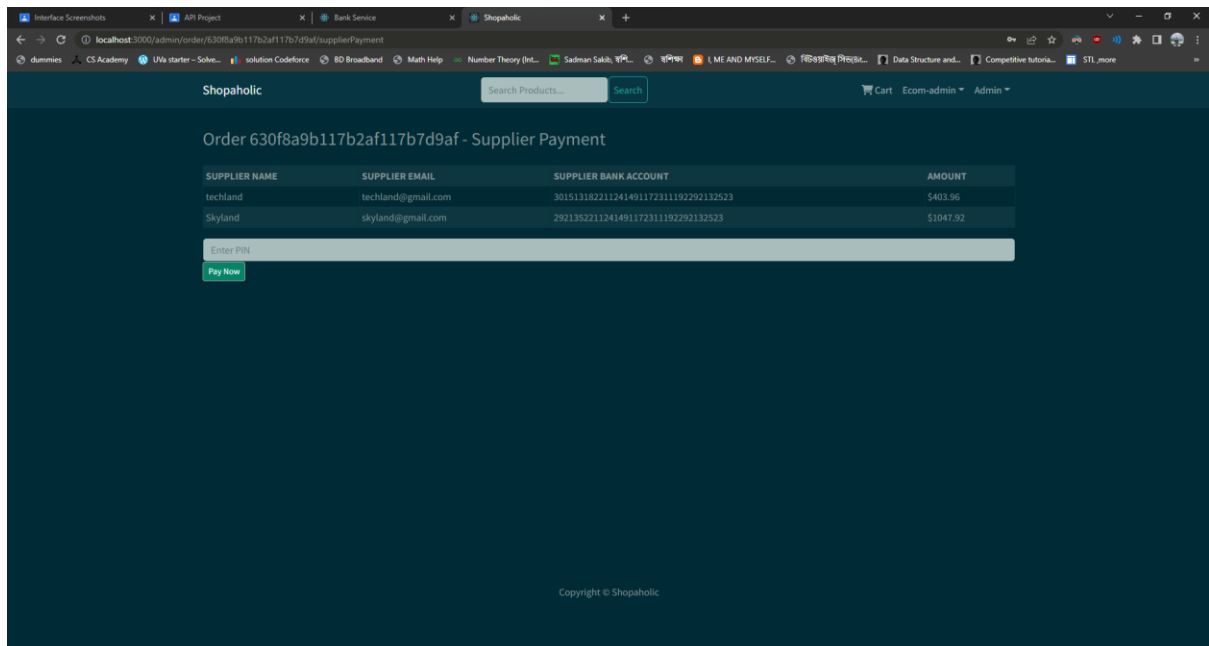


Figure 29: After clicking on "Pay To Supplier", admin will land to this page and has to give pin number to pay all the supplier for a particular order. Here after giving valid pin, admin will pay to supplier through bank API. If the transaction is successful, then bank API will send transaction id to the E-Commerce API. Then E-Commerce API will send delivery request with the transaction id and ordered items to the supplier through supplier API. Then supplier API will check whether the transaction is valid or not through bank API. If the transaction is valid, supplier will deliver the product to the user and send a success response to the E-Commerce API and then deliver status of this order will be updated.

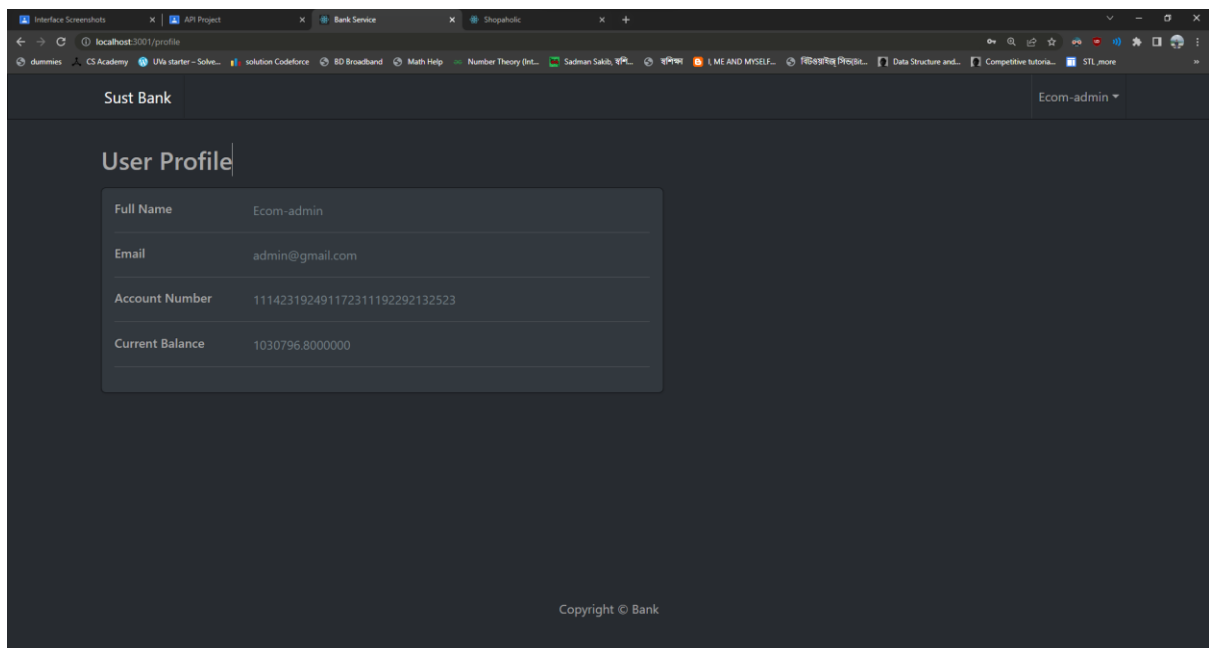


Figure 30: This is the initial balance of admin.

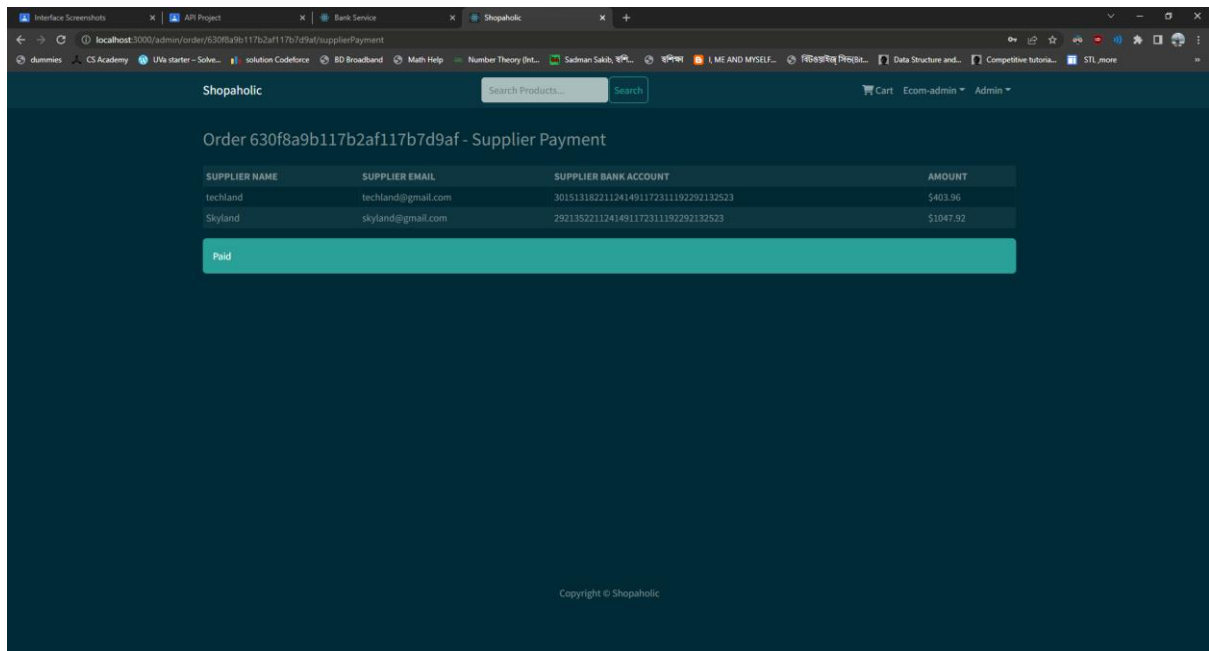


Figure 31: Admin has paid supplier with a valid pin

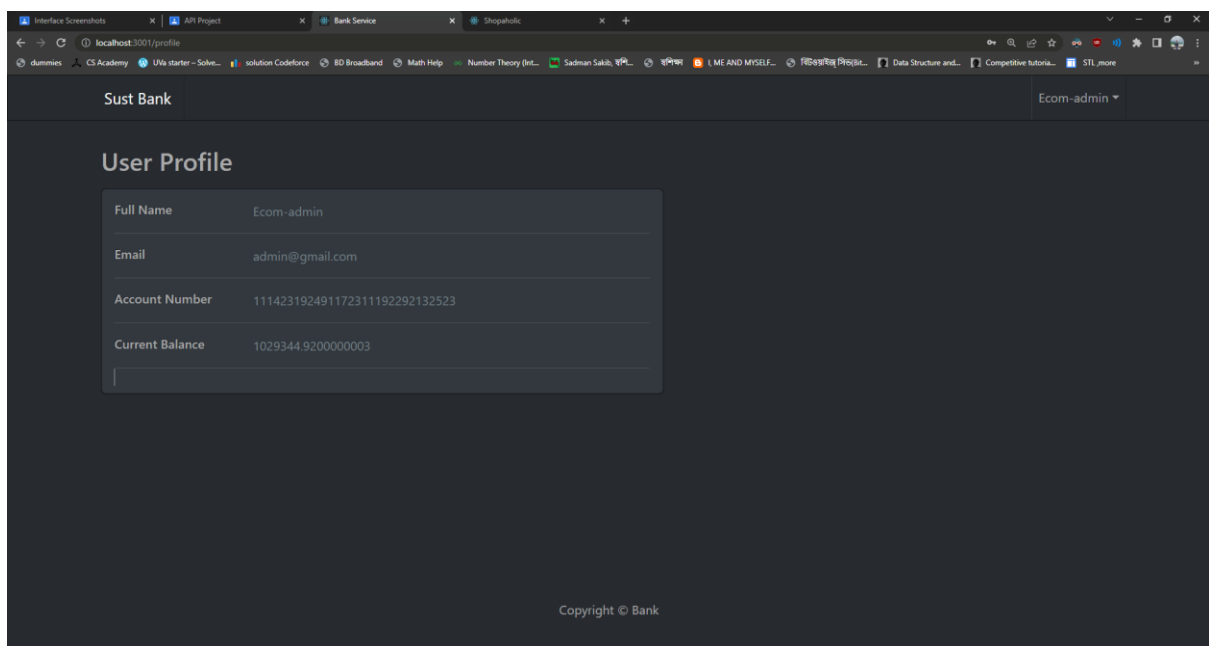


Figure 32: After paying the supplier, the bank balance of the admin is deducted.

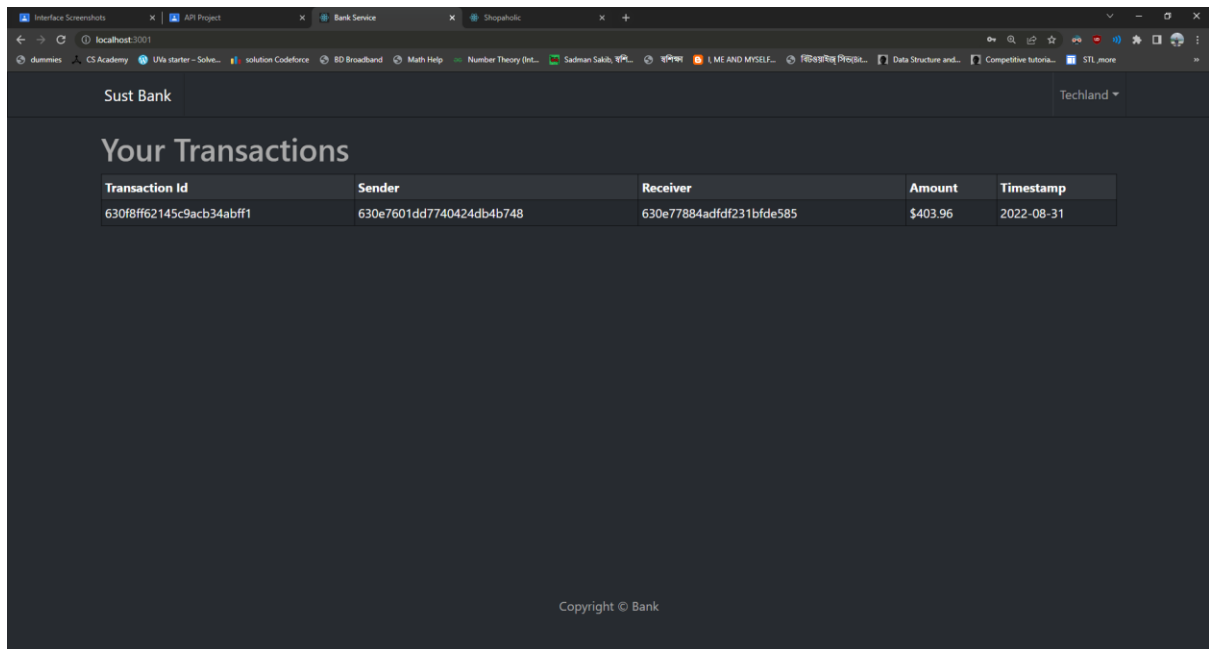


Figure 33: Now we logged in to the supplier bank account and can see the transaction that admin pays to this supplier.

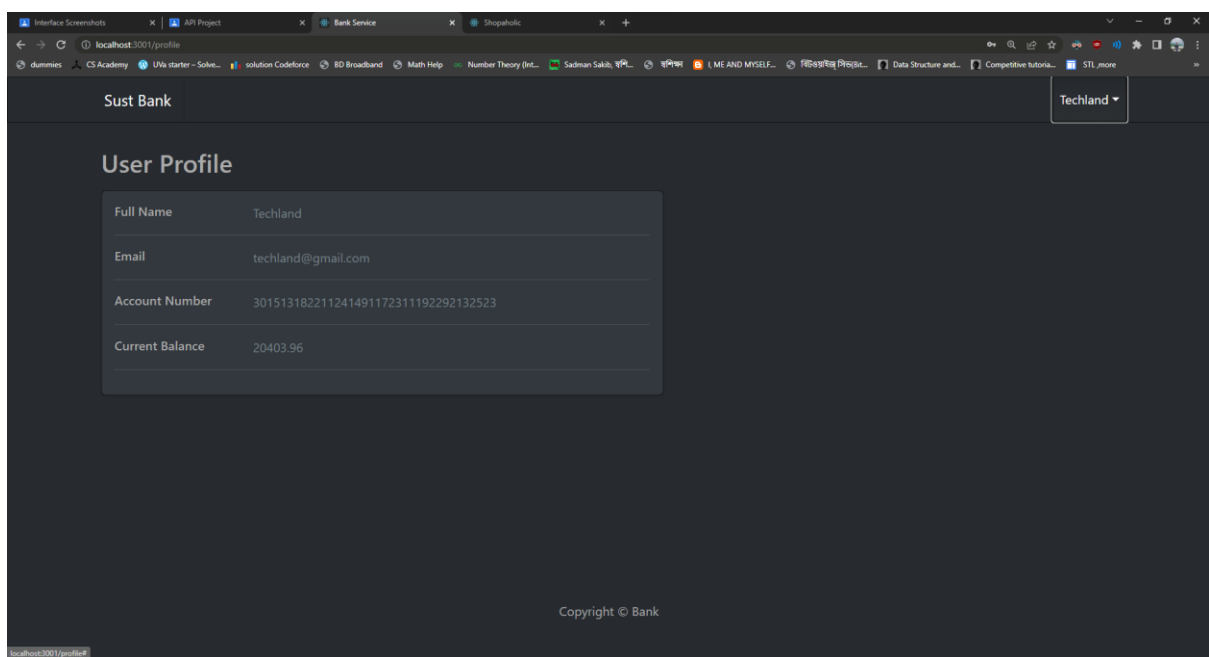


Figure 34: The supplier bank balance was initially 20000 and now we can see it has increased.

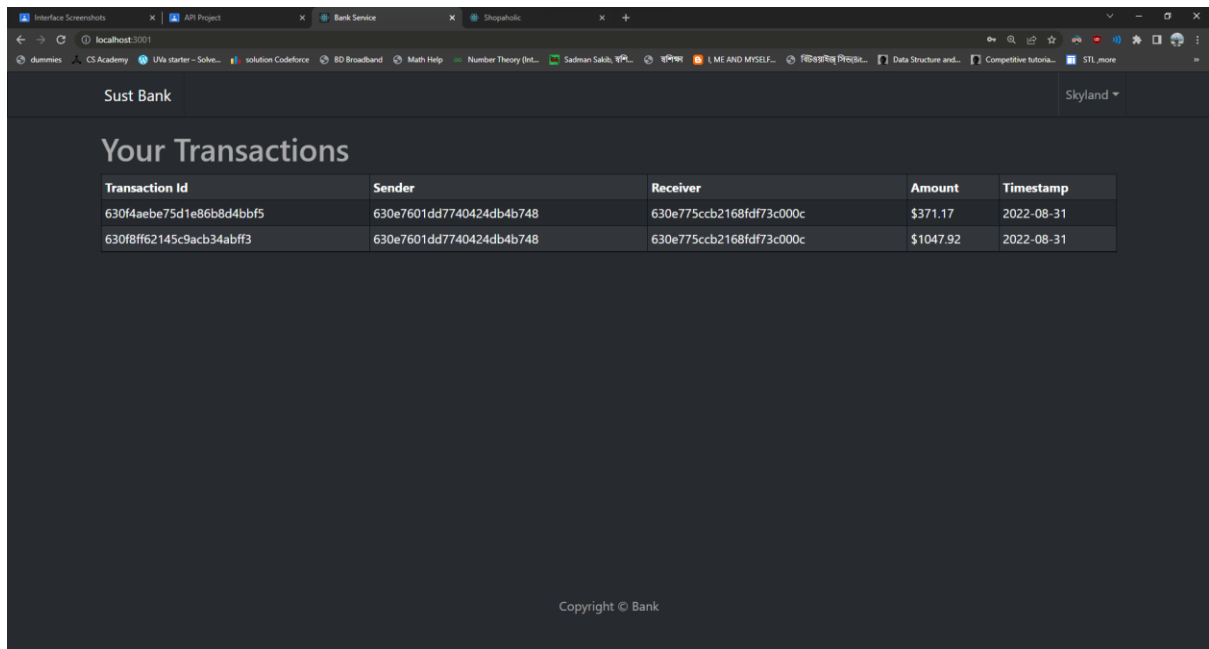


Figure 35: Then we login to another supplier bank account and can see his transaction and the last one is the one that admin paid.

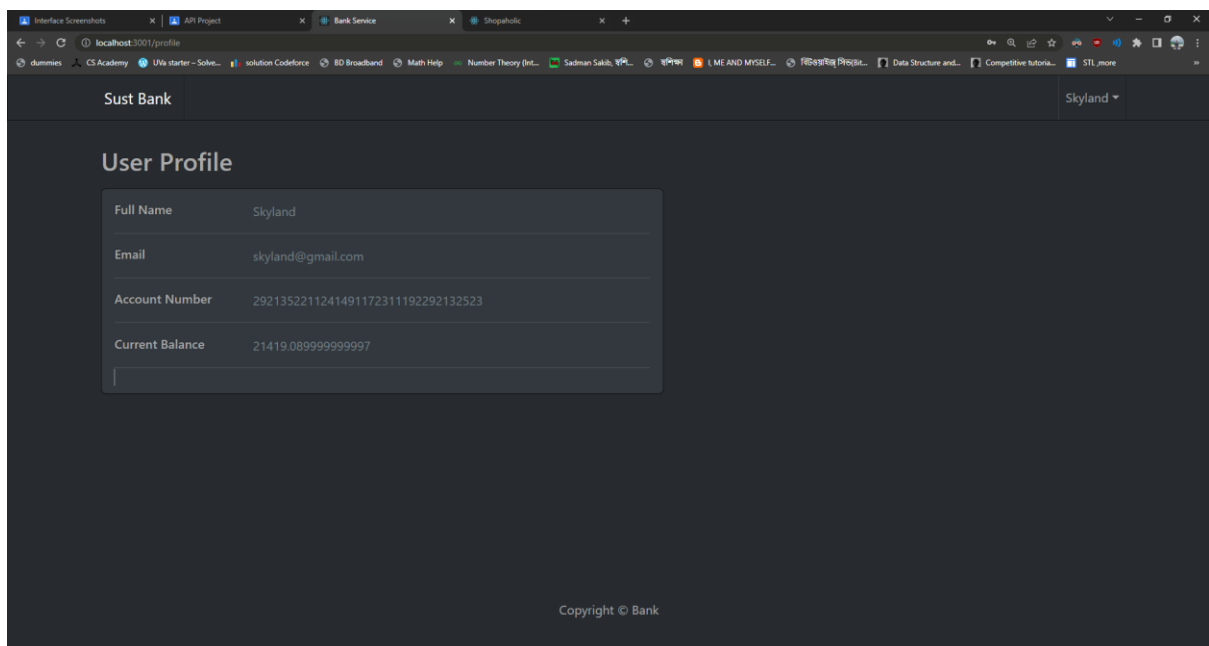
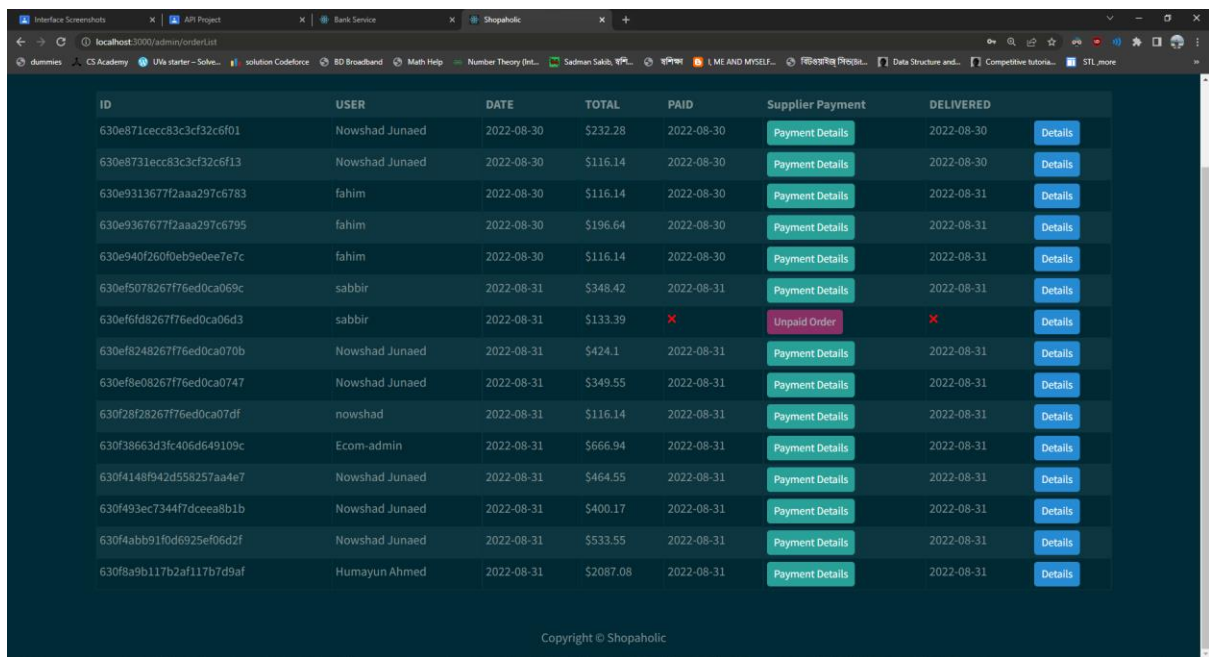


Figure 36: Similarly, we can see the other supplier's bank balance has also increased.

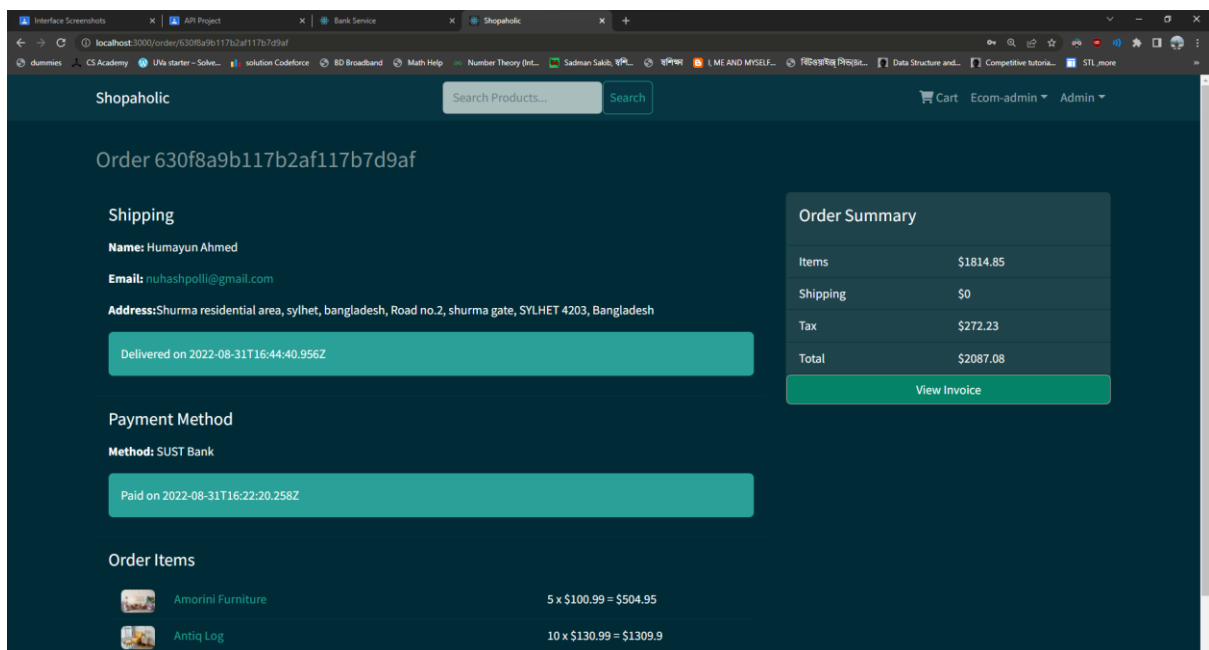


The screenshot shows a web browser window with the Shopaholic admin interface. The URL is localhost:3000/admin/orderList. The table displays a list of orders with columns for ID, USER, DATE, TOTAL, PAID, Supplier Payment, and DELIVERED. The 'PAID' column shows timestamps for most orders, indicating they have been paid. The 'Supplier Payment' column has buttons for 'Payment Details' or 'Unpaid Order'. The 'DELIVERED' column shows timestamps for most orders, indicating they have been delivered. The 'Unpaid Order' row for ID 630ef6d8267f76ed0ca06d3 shows a red 'X' in the 'PAID' column and a red 'X' in the 'DELIVERED' column.

ID	USER	DATE	TOTAL	PAID	Supplier Payment	DELIVERED
630e871cecc83c3cf32c6f01	Nowshad Junaed	2022-08-30	\$232.28	2022-08-30	Payment Details	2022-08-30
630e8731ecc83c3cf32c6f13	Nowshad Junaed	2022-08-30	\$116.14	2022-08-30	Payment Details	2022-08-30
630e9313677f2aaa297c6783	fahim	2022-08-30	\$116.14	2022-08-30	Payment Details	2022-08-31
630e9367677f2aaa297c6795	fahim	2022-08-30	\$196.64	2022-08-30	Payment Details	2022-08-31
630e940f260f0eb9e0ee7e7c	fahim	2022-08-30	\$116.14	2022-08-30	Payment Details	2022-08-31
630ef5078267f76ed0ca069c	sabbir	2022-08-31	\$348.42	2022-08-31	Payment Details	2022-08-31
630ef6d8267f76ed0ca06d3	sabbir	2022-08-31	\$133.39	×	Unpaid Order	×
630ef8248267f76ed0ca070b	Nowshad Junaed	2022-08-31	\$424.1	2022-08-31	Payment Details	2022-08-31
630ef8e08267f76ed0ca0747	Nowshad Junaed	2022-08-31	\$349.55	2022-08-31	Payment Details	2022-08-31
630f28f28267f76ed0ca07df	nowshad	2022-08-31	\$116.14	2022-08-31	Payment Details	2022-08-31
630f38663d3fc406d649109c	Ecom-admin	2022-08-31	\$666.94	2022-08-31	Payment Details	2022-08-31
630f4148942d55825aa4e7	Nowshad Junaed	2022-08-31	\$464.55	2022-08-31	Payment Details	2022-08-31
630f493ec7344f7dcea8b1b	Nowshad Junaed	2022-08-31	\$400.17	2022-08-31	Payment Details	2022-08-31
630f4abb91f0d6925ef06d2f	Nowshad Junaed	2022-08-31	\$533.55	2022-08-31	Payment Details	2022-08-31
630f8a9b117b2af117b7d9af	Humayun Ahmed	2022-08-31	\$2087.08	2022-08-31	Payment Details	2022-08-31

Copyright © Shopaholic

Figure 37: After admin pays the supplier, the delivery status changes into a timestamp which indicates the payment time. The 'Pay To Supplier' button turns into 'Payment Details' button.



The screenshot shows the Shopaholic order details page for Order 630f8a9b117b2af117b7d9af. The page is divided into several sections: Shipping, Payment Method, Order Items, and Order Summary. The Shipping section shows the customer's name, email, and address, along with a delivery timestamp. The Payment Method section shows the payment method (SUST Bank) and a payment timestamp. The Order Items section lists the items ordered: Amorini Furniture (5 x \$100.99 = \$504.95) and Antiq Log (10 x \$130.99 = \$1309.9). The Order Summary section shows the total amount (\$2087.08) and a 'View Invoice' button.

Shopaholic

Search Products... Search

Cart Ecom-admin Admin

Order 630f8a9b117b2af117b7d9af

Shipping

Name: Humayun Ahmed
Email: nuhashpolli@gmail.com
Address: Shurma residential area, sylhet, bangladesh, Road no.2, shurma gate, SYLHET 4203, Bangladesh

Delivered on 2022-08-31T16:44:40.956Z

Payment Method

Method: SUST Bank

Paid on 2022-08-31T16:22:20.258Z

Order Items

Amorini Furniture 5 x \$100.99 = \$504.95
 Antiq Log 10 x \$130.99 = \$1309.9

Order Summary

Items	\$1814.85
Shipping	\$0
Tax	\$272.23
Total	\$2087.08

View Invoice

Figure 38: Now if we go to the order details page, we can see the order is delivered

3. Supplier Backend

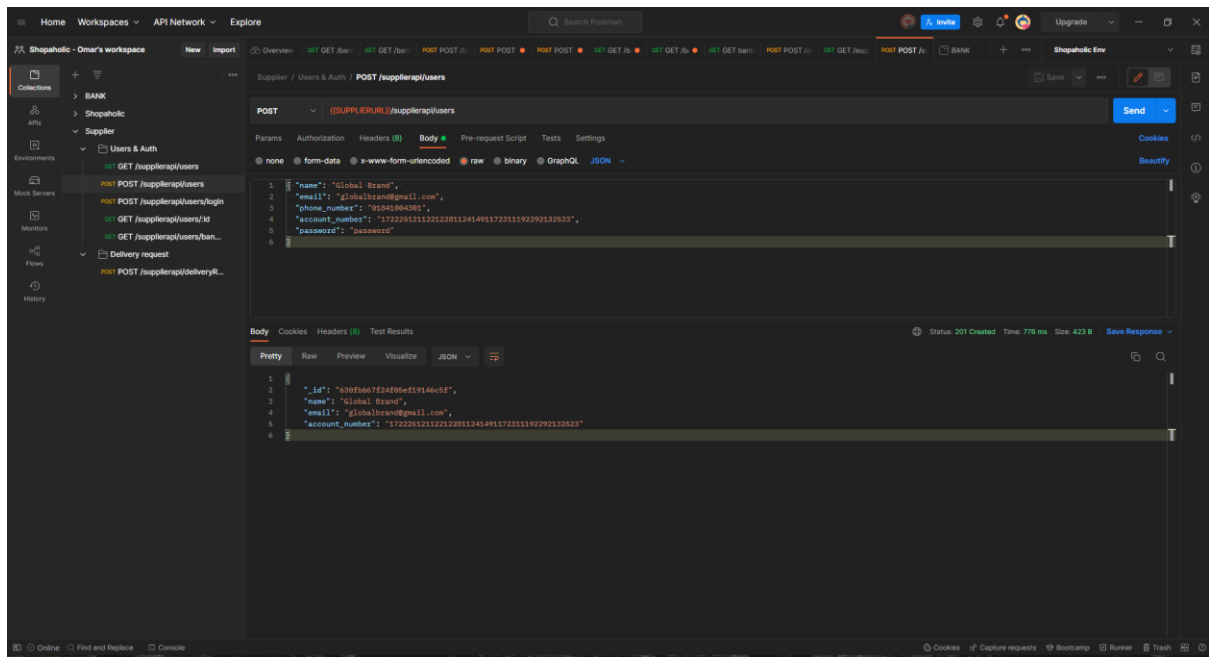


Figure 39: Create a supplier

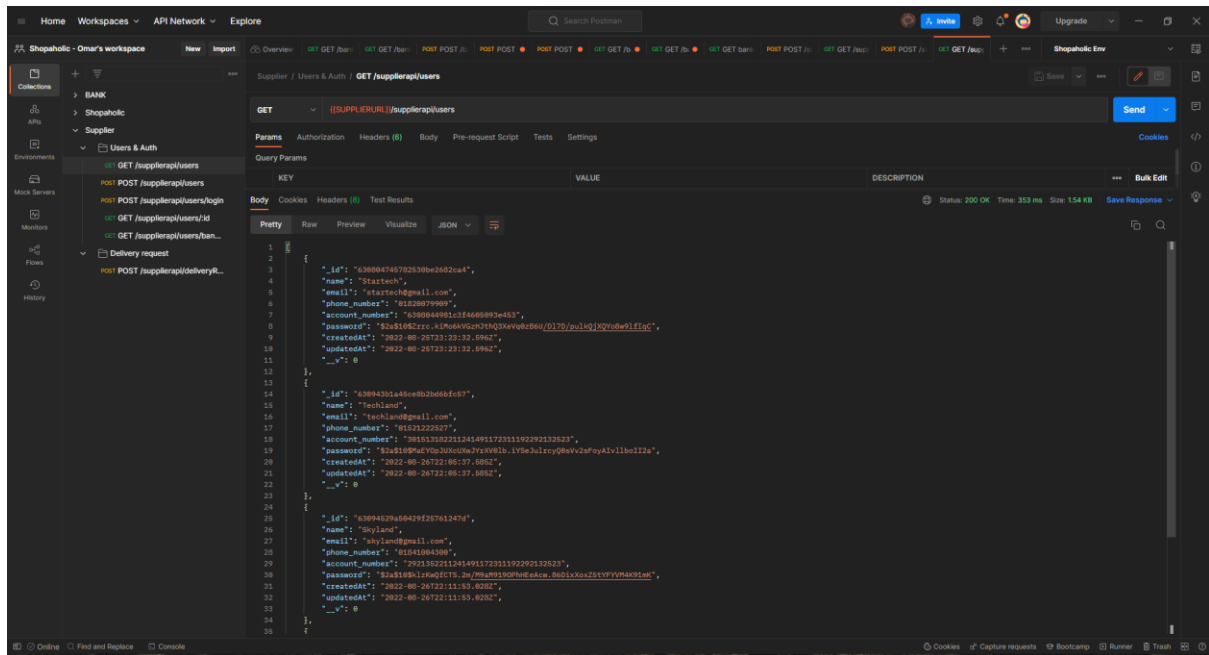


Figure 40: GET all the suppliers

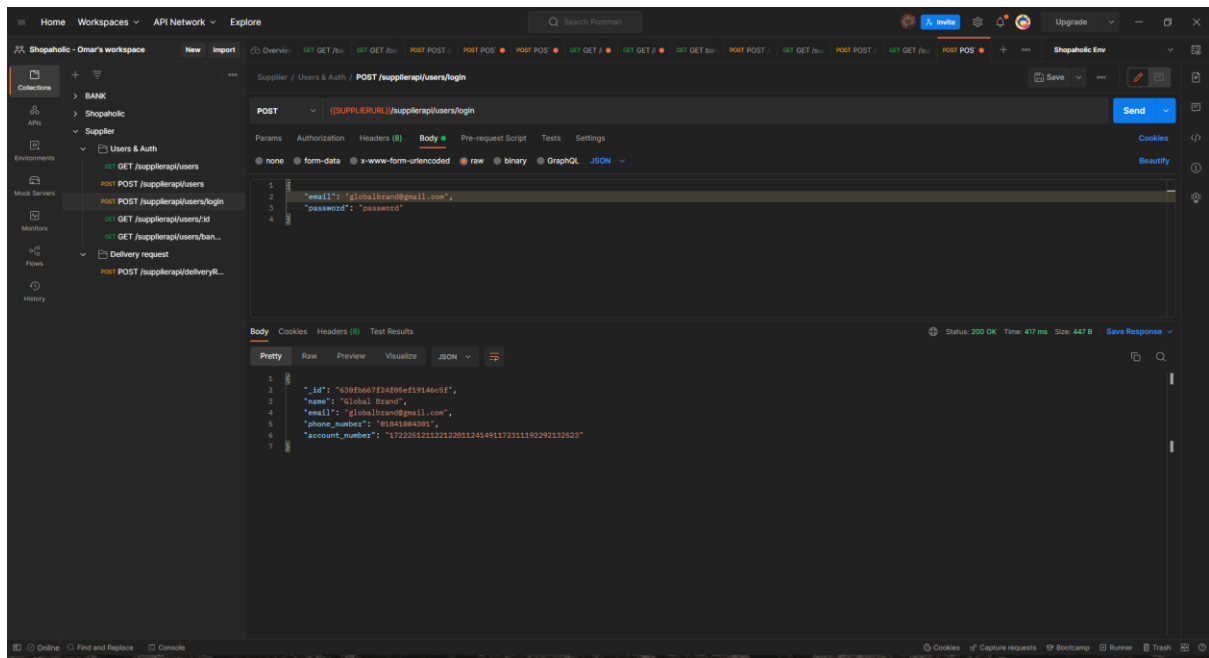


Figure 41: Supplier Login

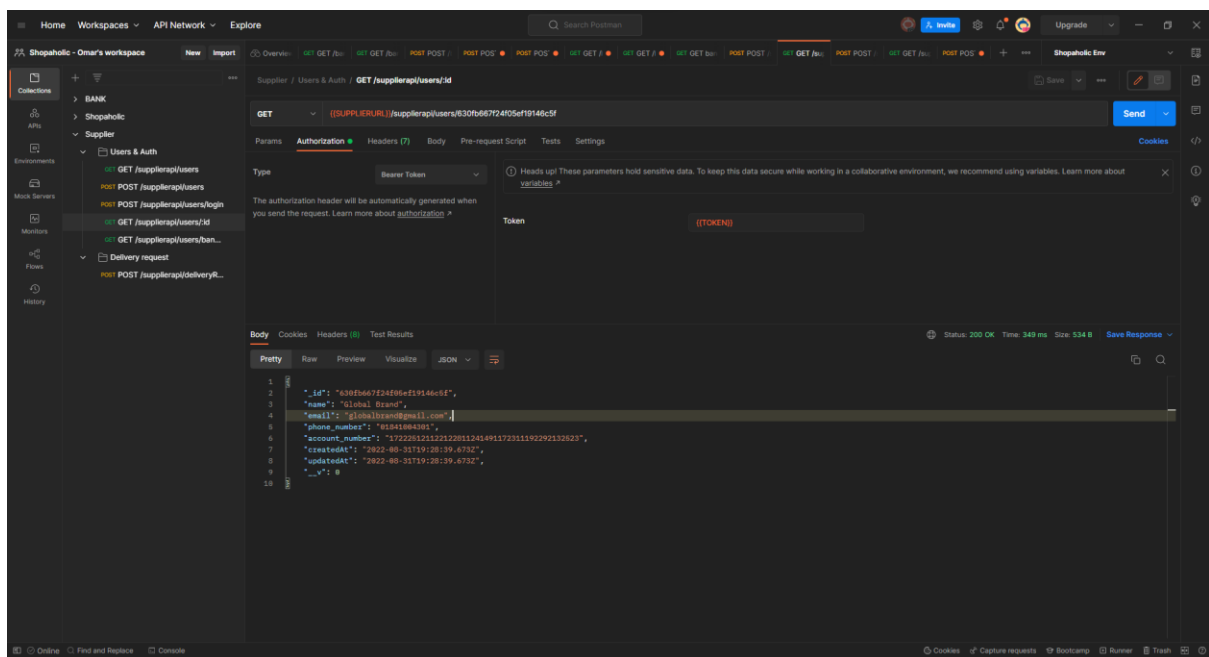


Figure 42: GET supplier by its ID

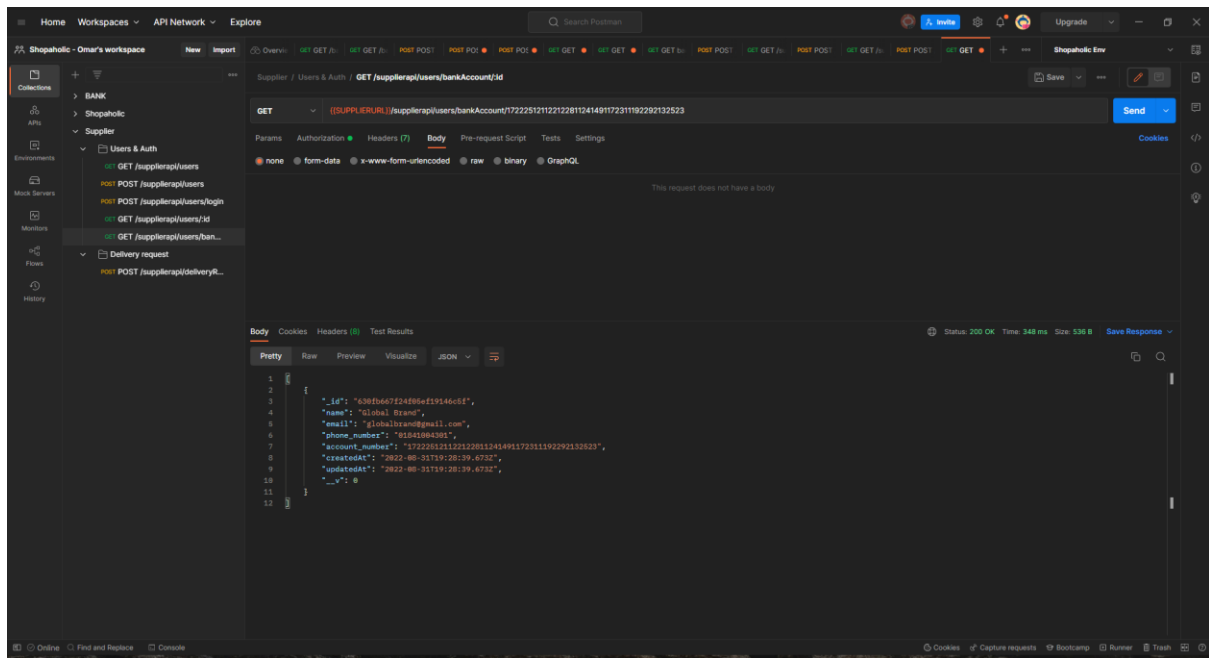
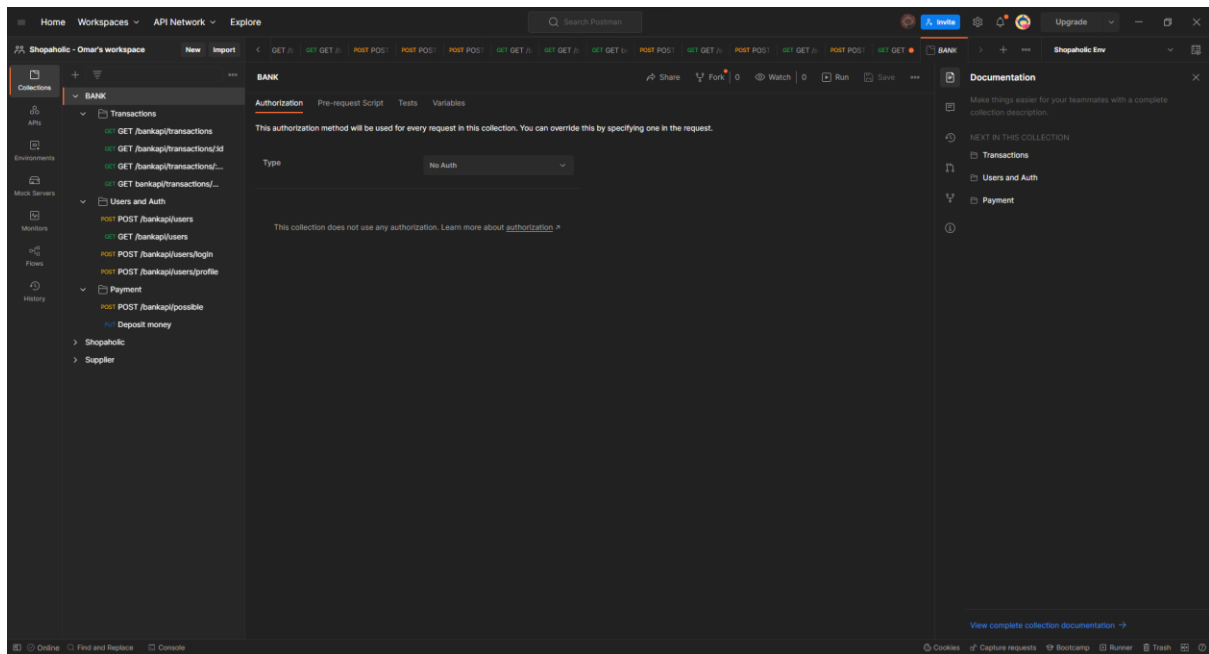


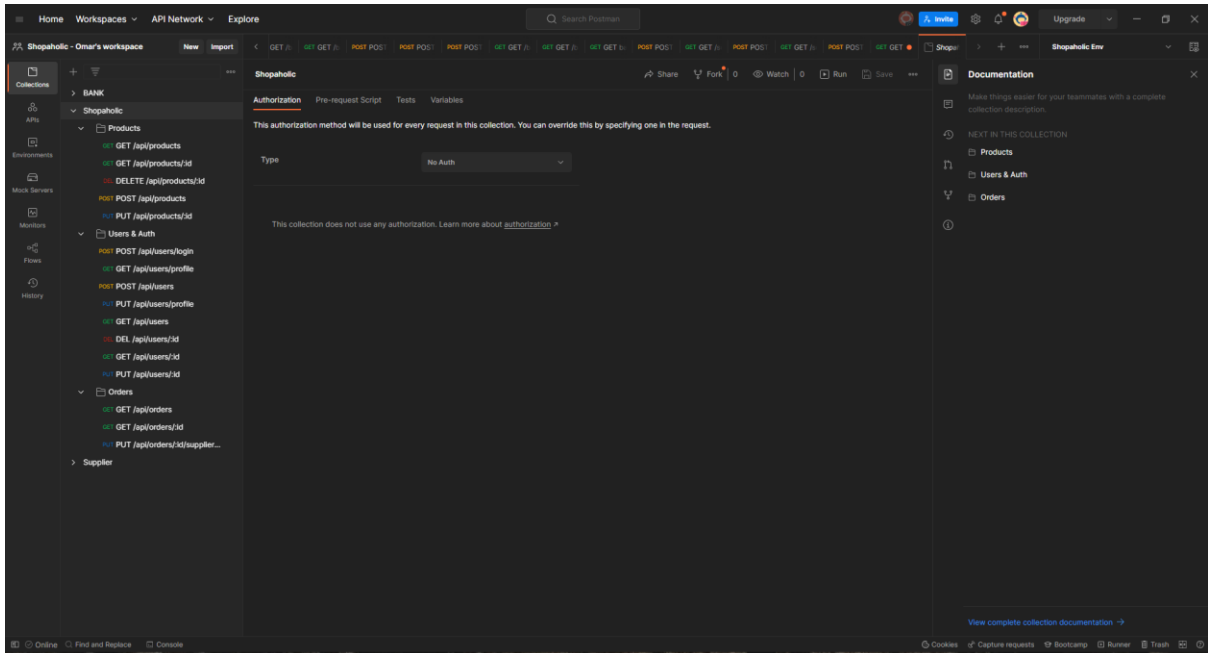
Figure 43: GET supplier through its Bank Account

4. All the API's

- Bank API's



- Shopaholic E-Commerce API



- Supplier API

