

Maintenance Manual

Senior Project
Pho Ru Website

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Date: 05/13/2022

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1 Introduction

Pho Ru is a Vietnamese restaurant located in South Sacramento, California. Lynn, the restaurant owner, decided to improve her website. As a result, team energy created a website that provides an option for the user to order online, an option for the user to create an account and view their order history, yelp reviews as a slideshow on the home page, and an about page to name a few.

2 Implementation tools and technologies

List of knowledge, tools and technologies would be needed to maintain the software product:

Programming languages: Javascript, NodeJs
Technologies, libraries and frameworks: React, ExpressJs
Web Services: Microsoft SQL Server
Web technologies: HTML5, CSS
IDE: Visual Studio Code,
Networking protocols: Standard (TCP/IP), POST, GET
Databases/Data storages: MySQL
Application and web servers: Microsoft SQL Server
Payment service: Stripe
Email service: EmailJS

3 Runbook

3.1 Server goes down: problems with Sign In, Sign Up and User Profile page (backend):

1. Open your visual studio
2. Go to backend folder
3. Connect your visual studio code with Heroku
4. Type “Heroku logs”
This will show what is the problem with the deployment of code.

3.2 Server goes down: problems with the website (frontend):

1. Login into your Netlify account
2. Deploys
3. Deploy logs: check if you find any issue
4. Make changes to your file then redeploy the website

3.3 Database is corrupt

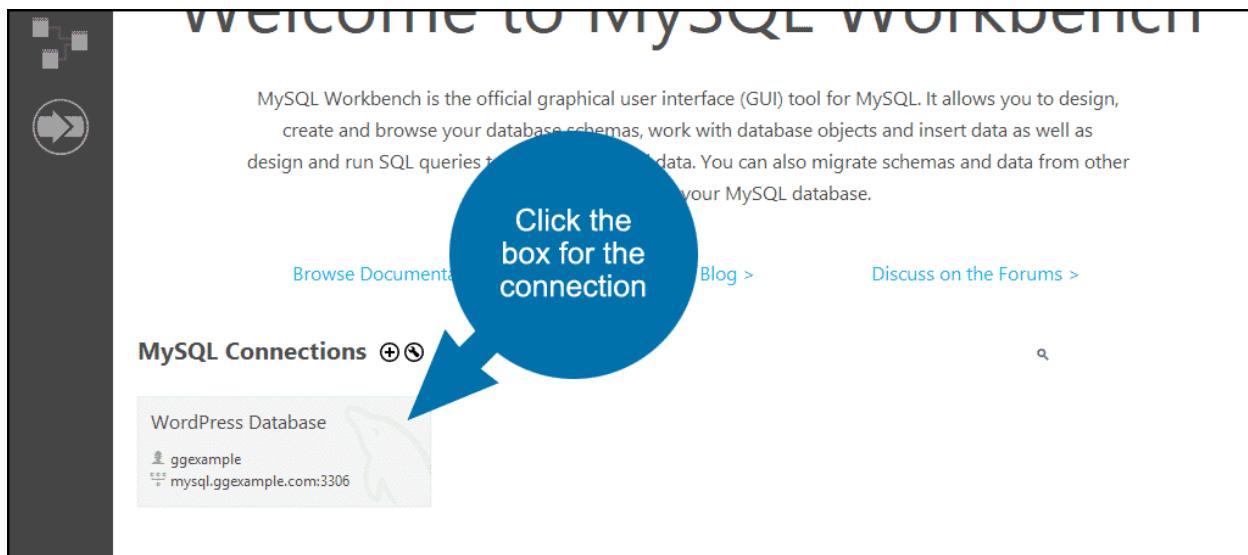
To prevent losing data in our database, we can backup the database to disk and restore it if the database becomes corrupt.

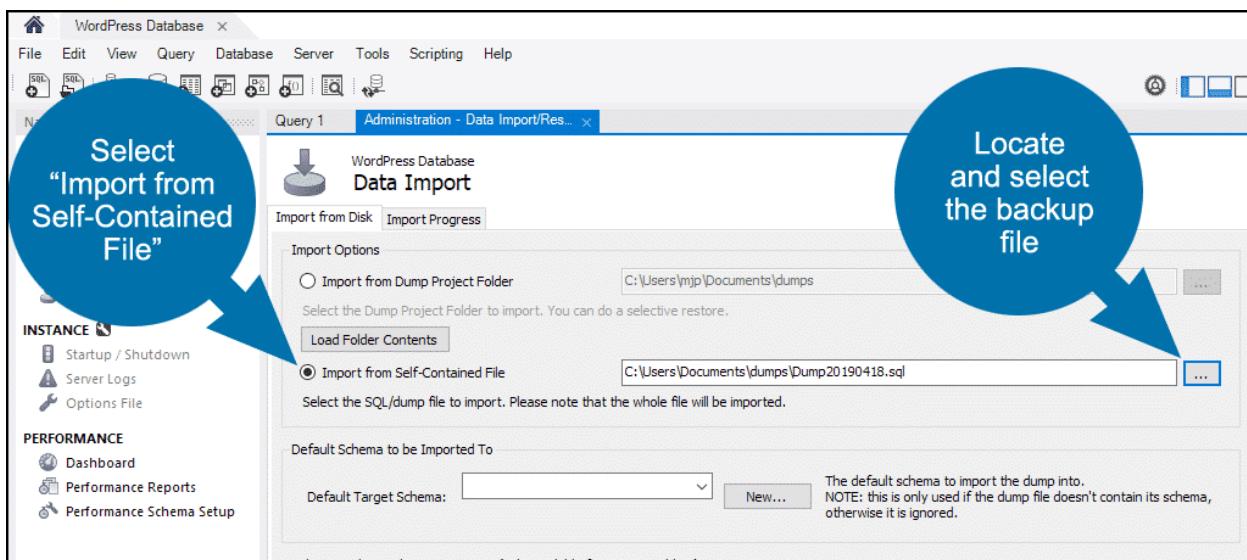
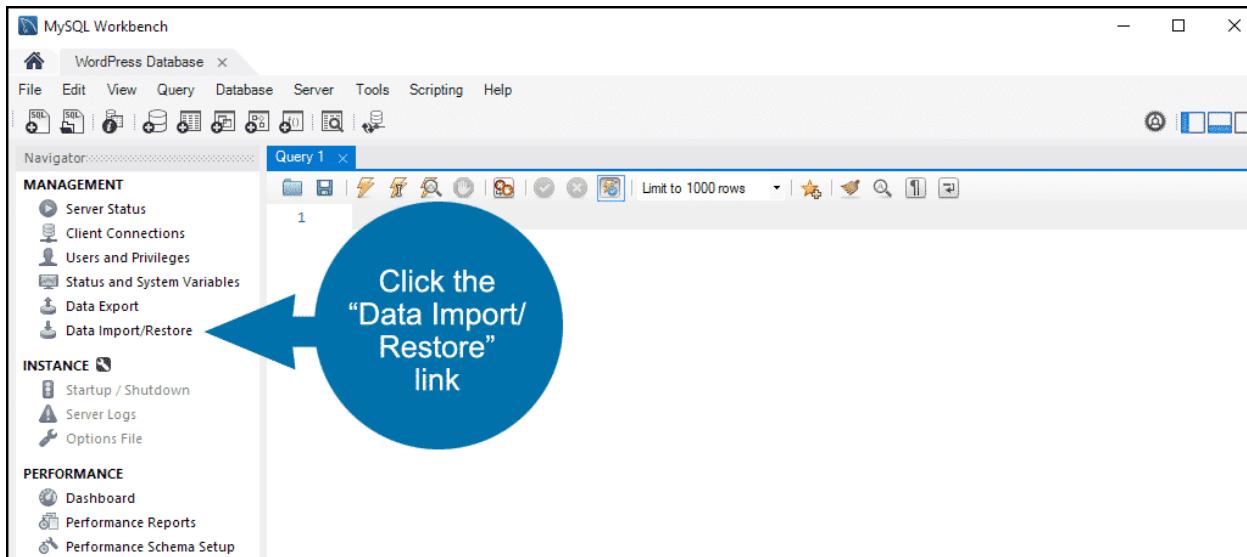
3.3.0 How to backup MySQL database

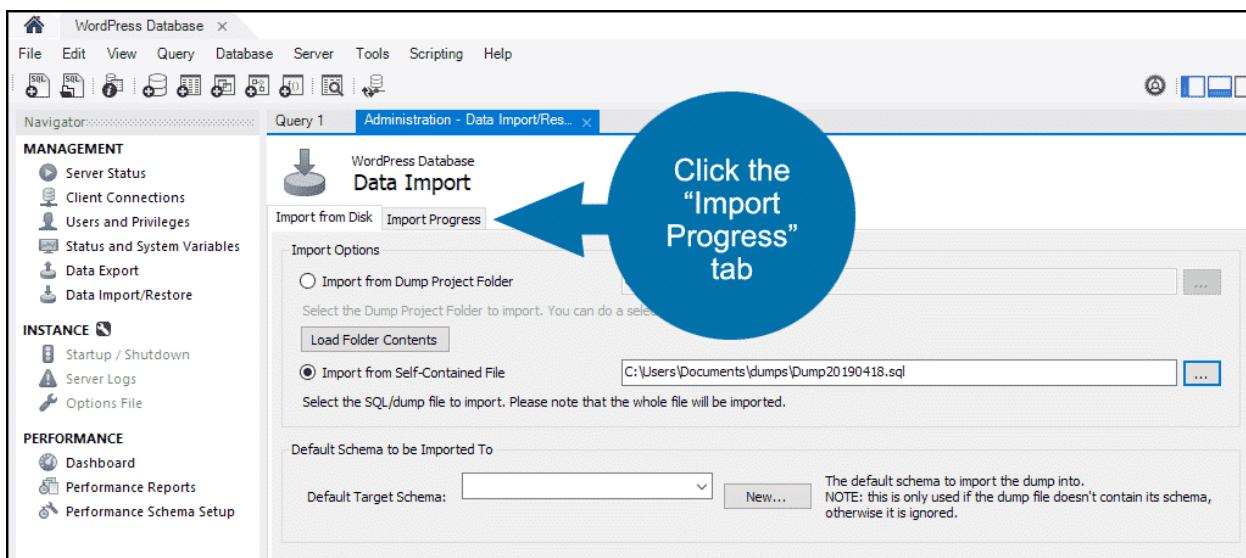
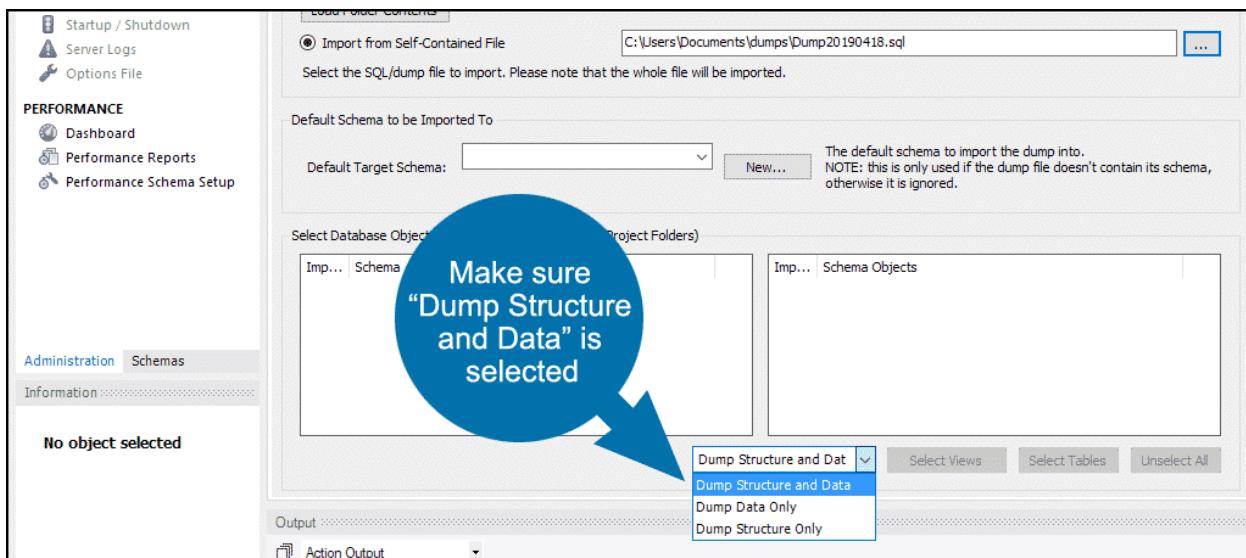
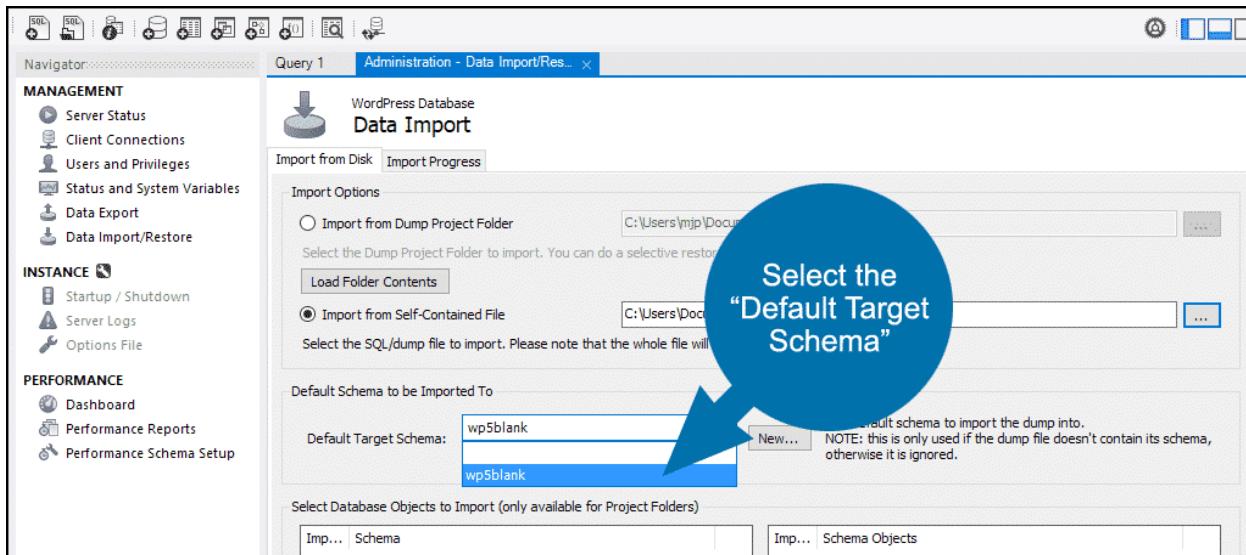
<https://www.greengeeks.com/tutorials/make-a-mysql-database-backup-with-mysql-workbench/>

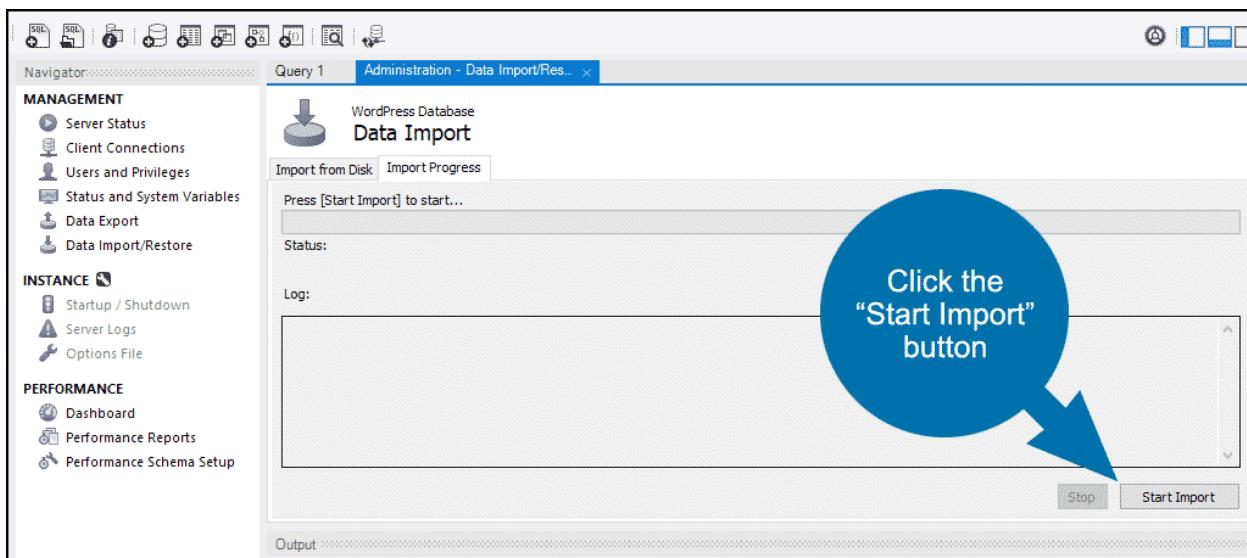
3.3.1 How to restore from backup

<https://www.greengeeks.com/tutorials/restore-a-mysql-database-from-a-backup-with-mysql-workbench/>









3.3.2 Third party services go down

If you type in the correct URL and the Pho Ru webpage is not shown up, then it is possible that Netlify service is down. If so please visit <https://www.netlify.com/> for more information.

For the possibility of error coming from our code, please refer to 3.2 section.

If you experience with Sign In, Sign Up, and accessing User Profile page, then it is possible that Heroku service is down. If so please log into <https://id.heroku.com/login/> for more information.

For the possibility of error coming from our code, please refer to 3.1 section.

3.3.3 How to configure a computer for development work

1. Install Visual Studio Code: <https://code.visualstudio.com/download>
2. Use Visual Studio Code to open the code folder named Senior-Project
3. Create your github repository and upload the code to this repository
<https://docs.github.com/en/get-started/importing-your-projects-to-github/importing-source-code-to-github/adding-locally-hosted-code-to-github>

To install packages for backend:

1. Open the terminal in VS Code
2. Go to the backend code directory
\$ /path/to/Senior-Project/backend
3. Install all packages
\$ npm install
4. Start the backend server
\$ npm start

To install packages for frontend:

1. Open the terminal in VS Code
2. Go to the backend code directory
\$ /path/to/Senior-Project/backend
3. Install all packages
\$ npm install
4. Start the frontend server
\$ npm start

3.3.4 How to make a code change

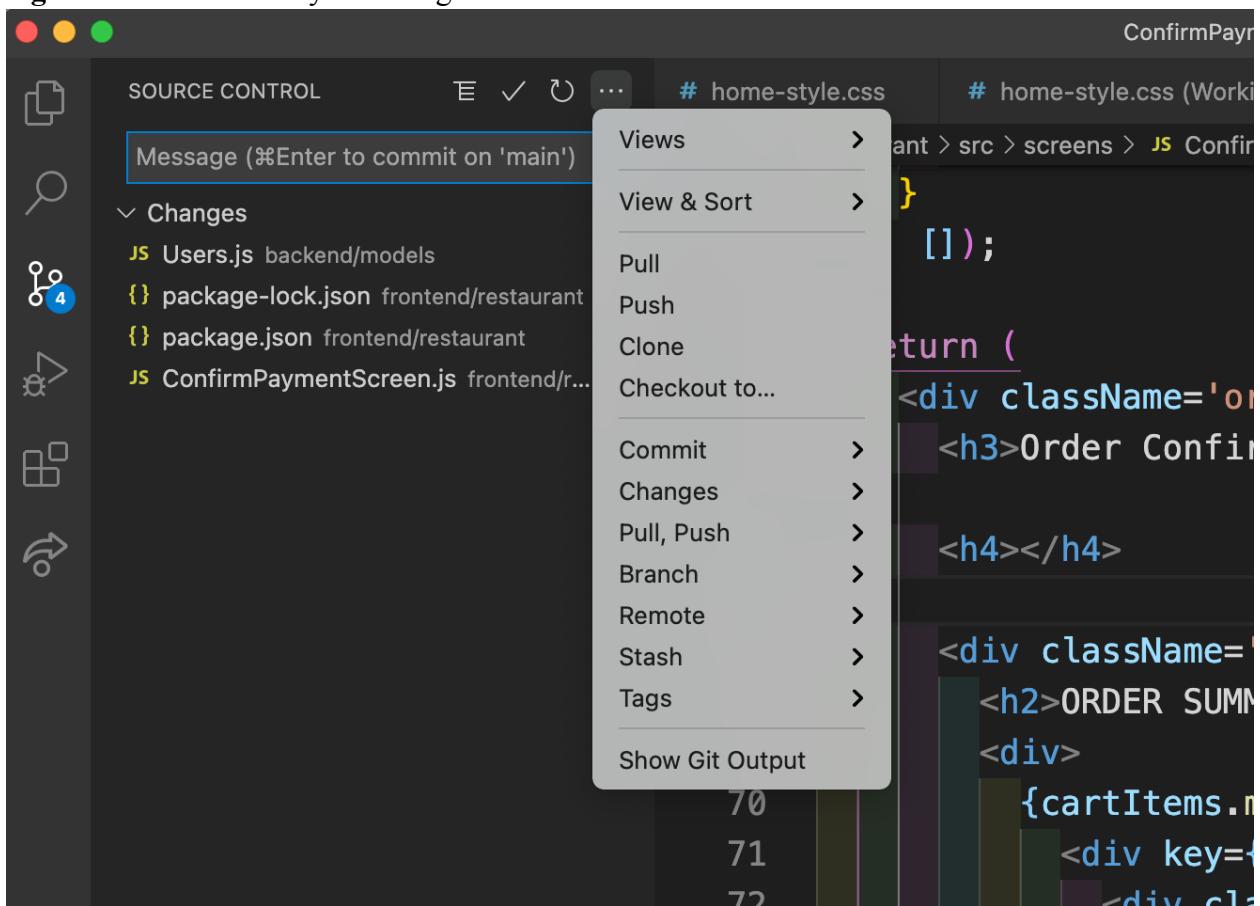
Once you have the project and the repository setup, you can modify the code, stage your changes and commit your changes.

Figure 3.3.3.1 Stage your changes

The screenshot shows the VS Code interface with the following details:

- Source Control Panel:** On the left, it shows a list of files with their status: `Users.js` (backend/models) is modified (M), `package-lock.json` and `package.json` (frontend/restaurant) are staged (S), and `ConfirmPaymentScreen.js` (frontend/screens) is modified (M). A tooltip indicates that `Users.js` is located at `~/Desktop/merge_Senior_Project/Senior-Project/backend/models/Users.js` and is modified.
- Code Editor:** The main area displays the `ConfirmPaymentScreen.js` file. The code includes components like `<div>`, `<h3>`, and `<h4>`. Lines 58 and 59 show a closing brace and a bracket pair respectively. Lines 61 through 70 show the beginning of a return statement and the start of a `<div>` block.
- Header:** The title bar shows the file name `ConfirmPaymentScreen.js`.

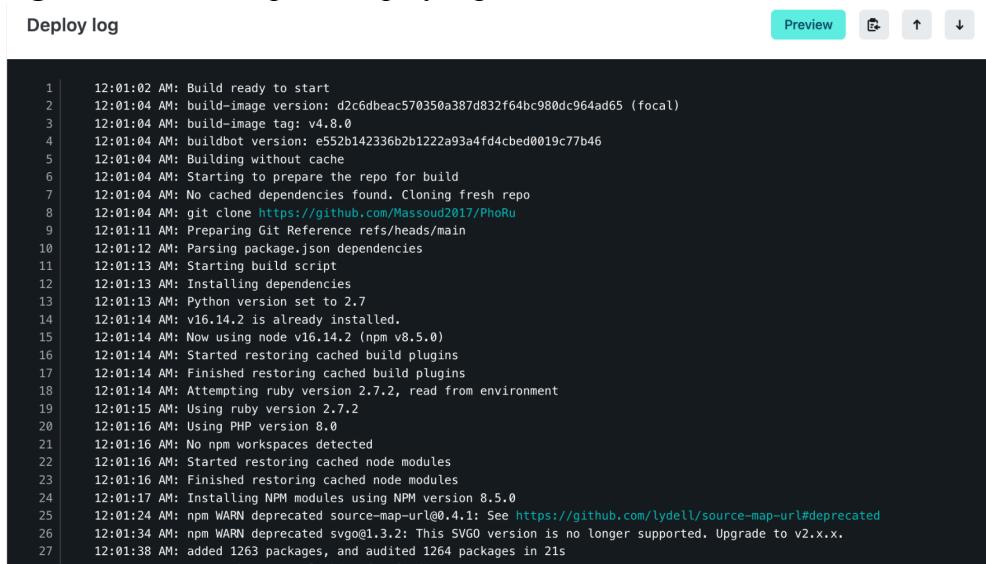
Figure 3.3.3.2 Commit your changes



How to get to the log files and examine them for errors:

1. Heroku: heroku logs
2. Nelfify: provide deploy log

Figure 3.3.3.2 Example of deploy logs



```
1 12:01:02 AM: Build ready to start
2 12:01:04 AM: build-image version: d2c6dbeac570350a387d832f64bc980dc964ad65 (focal)
3 12:01:04 AM: build-image tag: v4.8.0
4 12:01:04 AM: buildbot version: e552b142336b2b1222a93a4fd4cbed0019c77b46
5 12:01:04 AM: Building without cache
6 12:01:04 AM: Starting to prepare the repo for build
7 12:01:04 AM: No cached dependencies found. Cloning fresh repo
8 12:01:04 AM: git clone https://github.com/Massoud2017/PhoRu
9 12:01:11 AM: Preparing Git Reference refs/heads/main
10 12:01:12 AM: Parsing package.json dependencies
11 12:01:13 AM: Starting build script
12 12:01:13 AM: Installing dependencies
13 12:01:13 AM: Python version set to 2.7
14 12:01:14 AM: v16.14.2 is already installed.
15 12:01:14 AM: Now using node v16.14.2 (npm v8.5.0)
16 12:01:14 AM: Started restoring cached build plugins
17 12:01:14 AM: Finished restoring cached build plugins
18 12:01:14 AM: Attempting ruby version 2.7.2, read from environment
19 12:01:15 AM: Using ruby version 2.7.2
20 12:01:16 AM: Using PHP version 8.0
21 12:01:16 AM: No npm workspaces detected
22 12:01:16 AM: Started restoring cached node modules
23 12:01:16 AM: Finished restoring cached node modules
24 12:01:17 AM: Installing NPM modules using NPM version 8.5.0
25 12:01:24 AM: npm WARN deprecated source-map-url@0.4.1: See https://github.com/lydell/source-map-url#deprecated
26 12:01:24 AM: npm WARN deprecated svgo@1.3.2: This SVGO version is no longer supported. Upgrade to v2.x.x.
27 12:01:38 AM: added 1263 packages, and audited 1264 packages in 21s
```

3.4 How to run automated tests

3.4.0 Setting up our testing environment:

You need to install Python 3 in your system:

Go to the website www.python.org, download and install python 3.

Make sure pip is installed

- pip comes with Python
- To check if we have pip, open a terminal and execute pip command
 - In windows: \$ pip
 - In Linux or Mac: \$ pip3

We should see these outputs on the terminal screen:

Usage:

pip3 <command> [options]

Commands:

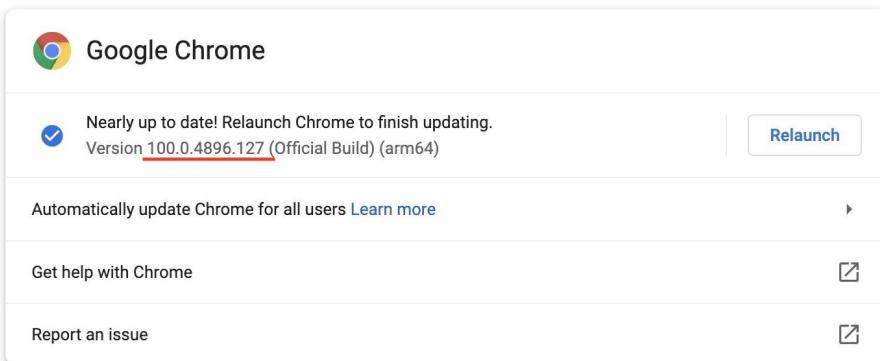
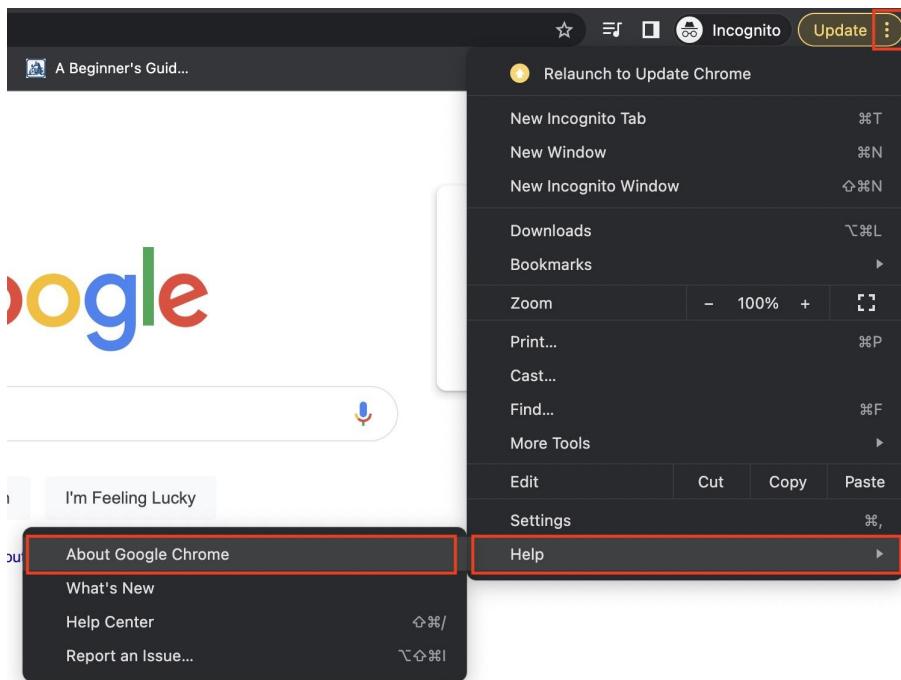
install	Install packages.
download	Download packages.
uninstall	Uninstall packages.

...

...

3.4.1 Download and install ChromeDriver (WebDriver for Chrome)

- Check which version of Chrome Browser that we have
Go to Hamburger menu -> help -> About Chrome
Example: Version 100.0.4896.127 (Official Build) (arm64)



- Download the correct chrome driver:
Go to <https://chromedriver.chromium.org/downloads>
For Chrome version 100, download ChromeDriver 100.0.4896.60

Current Releases

- If you are using Chrome version 102, please download [ChromeDriver 102.0.5005.27](#)
- If you are using Chrome version 101, please download [ChromeDriver 101.0.4951.41](#)
- If you are using Chrome version 100, please download [ChromeDriver 100.0.4896.60](#)
- For older version of Chrome, please see below for the version of ChromeDriver that supports it.

- Download the correct installation for our operating system. For example, we downloaded mac64_m1 for MacOS with an M1 chip.

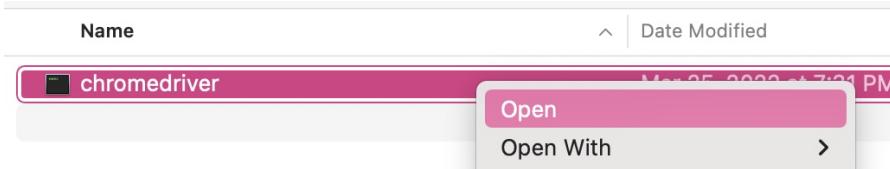
Index of /100.0.4896.60/

Name	Last modified	Size	ETag
 Parent Directory		-	-
 chromedriver_linux64.zip	2022-03-30 07:06:34	6.66MB	3eb3cf16bf08657ba9cbe7f8d03f2b57
 chromedriver_mac64.zip	2022-03-30 07:06:37	8.01MB	298f880112c4930a8247d8507ad9357d
 chromedriver_mac64_m1.zip	2022-03-30 07:06:39	7.31MB	fb7238bc8e5e44c693baf3692e62e66c
 chromedriver_win32.zip	2022-03-30 07:06:41	6.10MB	930ff33ae8babear74e0dd1ce1dae7ff
 notes.txt	2022-03-30 07:06:47	0.00MB	4d4858bc211e7fa738ba71a39f34fb11

- Unzip and move the chromedriver.exe to a directory. Remember the path so we can reference this file in our code.

Example: [/Users/ducnguyen/Programs/chromedriver](#)

- Notes: If you face the Error: “chromedriver” cannot be opened because the developer cannot be verified. Unable to launch the chrome browser, you need to go to the chromedriver directory and right-click chromeDriver file and open it. After this step, re-run your tests, chrome driver will work.



3.4.2 Running test files

Be aware of these variables in our test files, and adjust them according to your system, or your preferences:

- ★ **PATH** is the path to the chromedriver.exe we downloaded earlier.
- ★ **WEBPAGE** is the URL to our deployed application.
- ★ **WAITTIME** is the number of seconds the script will wait for an element to be loaded to the browser's DOM. Increase this value if you don't have a good internet connection.
- ★ **SHOWTIME** is the number of seconds the script will wait before executing the next code statement(s). Increase this value if you want to see how the automating test navigates through the web page in the browser. Decrease this value if you don't need to see what is happening on the browser, and just want to see the test results asap.

In order to run a test file:

1. Open a terminal
2. Go to the directory that has the test file

```
$ cd /path/to/test_files  
$ ls  
testfile01.py  testfile02.py  testfile03.py  
testfile04.py  testfile05.py
```

3. Run this command to execute the script:

```
$ python3 <test_file_name>
```

Example: `$ python3 testfile01.py`

To see more examples and expected outputs for automated tests, please refer to the System Testing document.

4 User interaction

4.1 Navbar



❖ **Description:**

NavBar is a component in React. We use the NavBar to allow users to navigate between pages on the Pho Ru website.

- To change the home page style:
frontend/restaurant → src → components → style.css
- To make changes to button in the NavBar:
frontend/restaurant → src → components → Nav.js

4.2 Footer:



❖ **Description:**

Footer is a component in React, we use the Footer to show some useful information about Pho Ru website.

- To change the home page style:
frontend/restaurant → src → components → style.css
- To make changes to button in the NavBar:
frontend/restaurant → src → components → Footer.js

4.3 Menu Page:

- All
- Appetizers and Salads
- Pho - Beef Noodle Soup
- Noodle Soups
- Shareable Dishes
- One Dish Meals
- Beverages
- House Special
- Dessert



Ru's Special Trio
Tôm Âu Việt
\$9.95

Add To Cart



Herb Roasted Quail
Chim Cút
\$8.25

Add To Cart



Crispy Salt and Pepper Calamari
Mực Chiên Dòn
\$7.95

Add To Cart



A4



G1



NO IMAGE AVAILABLE

❖ Description:

Menu Page is where we show the pictures of the food, the side bar for food categories selection. Users can use the 'Add to Cart button' to add food to cart. The Cart contents will also be shown on this page.

- To remove and add description to the menu page:
frontend/restaurant → src → screens → MenuItems.js
- To add new images for the menu page: add an image in the assets folder and import it to menulist.js:
frontend/restaurant → src → assets → Footer.js

```
import A1 from '../assets/A1.PNG';
import A2 from '../assets/A2.PNG';
import A5 from '../assets/A5.PNG';
import A6 from '../assets/A6.PNG';
```

```
{  
  id: '1',  
  type: 'Appetizers and Salads',  
  name: 'Ru`s Special Trio',  
  vietnamese_name: 'Tôm Âu Việt',  
  price: 9.95,  
  image: A1,  
},|
```

- To add or change the style of the menu page:
frontend/restaurant → screens → Menu.css
- To add an item to the menu page:
frontend/restaurant → screens → MenuItemList.js
- To change the order of the menu page and make changes to the menu page:
frontend/restaurant → screens → MenuItemItems.js

4.4 Home page:



❖ Description:

Users will be able to see some famous Yelp reviews on the home page, and the food images in the background will change after a few seconds

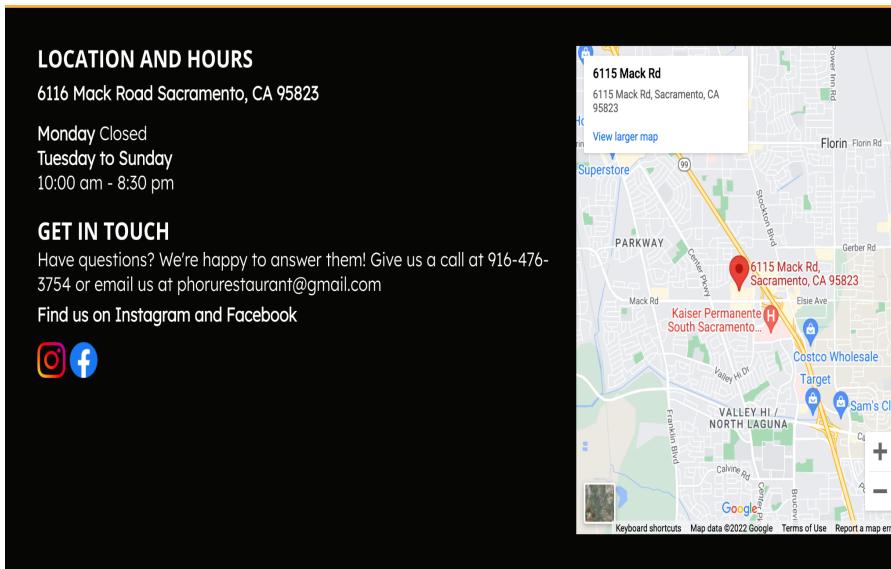
- To add or change the Yelp reviews:
frontend/restaurant → src → screens → Home.js

```
const textArray = [
  '"Probably the best Pho I have had yet."',
  '"By far my favorite restaurant for Vietnamese food in Sacramento!"',
  '"Pho is purely my addiction."',
  '"The best Pho I\'ve ever had. I couldn\'t stop eating."',
];
```

- To change the home page style:
frontend/restaurant → src → components → style.css
- To change the background picture, add the picture to the assets file, and imported it to the home page:
 - Copy image here: frontend/restaurant → src → assets
 - Import image and use it here: frontend/restaurant → src → screens → Home.js

```
import food from '../assets/M6.PNG';
...
<img src={food} />
```

4.5 Contact Page



- ❖ **Description:**
The Contact Page is used to show Pho Ru location and operation hours. It also has some additional content like links to social media, phone numbers, emails and a mini Google map. The content of this page is static.

- To change the texts on the contact page:
frontend/restaurant → src → screens → contact.js
- To change the background color:
frontend/restaurant → src → components → style.css

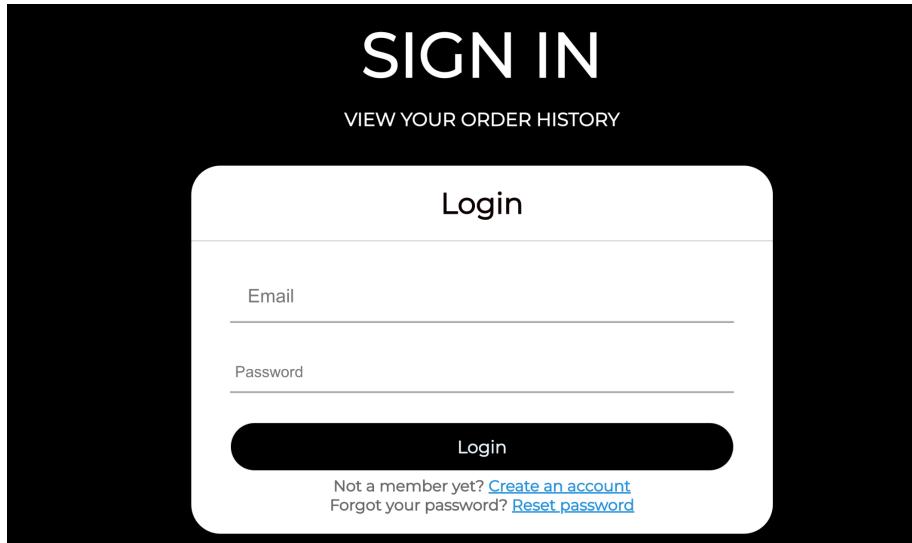
4.6 About Page



- ❖ **Description:**
The About Page is used to share the story about Pho Ru.
- To change the texts on the About page:
frontend/restaurant → src → screens → About.js
- To change the background color:
frontend/restaurant → src → components → style.css
- To change the pictures, add the picture to the assets file, and imported it to the About page:
 - Copy image here: frontend/restaurant → src → assets
 - Import image and use it here: frontend/restaurant → src → screens → About.js

```
import aboutPho from '../assets/About3.jpeg'
...
<img src={aboutPho} alt="pho ru" width= "350" height = "450" />
```

4.7 Sign In Page



❖ Description:

The Sign In Page is used to let users sign in. This page also provides the links to create an account and reset the user's password.

- To change to the style of the sign in page:
frontend/restaurant → src → components → style.css
- To change the texts on the Sign in page:
frontend/restaurant → src → screens → Login.js
- To make changes to the backend:
 - backend → routes → Users.js
 - backend → models → Users.js
 - backend → middleware → AuthMiddleware.js
 - backend → config.json

4.8 Verify Your Account Page

Please enter your email and name to verify your account.

Email (Ex. john_smith@gmail.com)

First Name (Ex. John)

Last Name (Ex. Smith)

Please fill out this field.

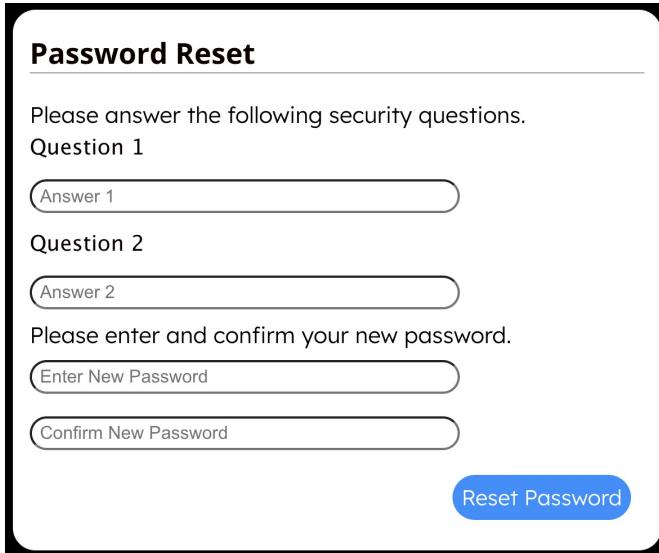
Verify

❖ Description:

The Verify Account page will verify if an account existed in our database. If so then navigate users to the Reset Password page.

- To change the style of the Verify Your Account page:::
frontend/restaurant → src → components → style.css
- To change the texts or modify anything on the Verify Your Account page:
frontend/restaurant → src → screens → ForgotPassword.js
- To make changes to the backend:
 - backend → routes → Users.js
 - backend → models → Users.js
 - backend → middleware → AuthMiddleware.js
 - backend → config.json

4.9 Password Reset



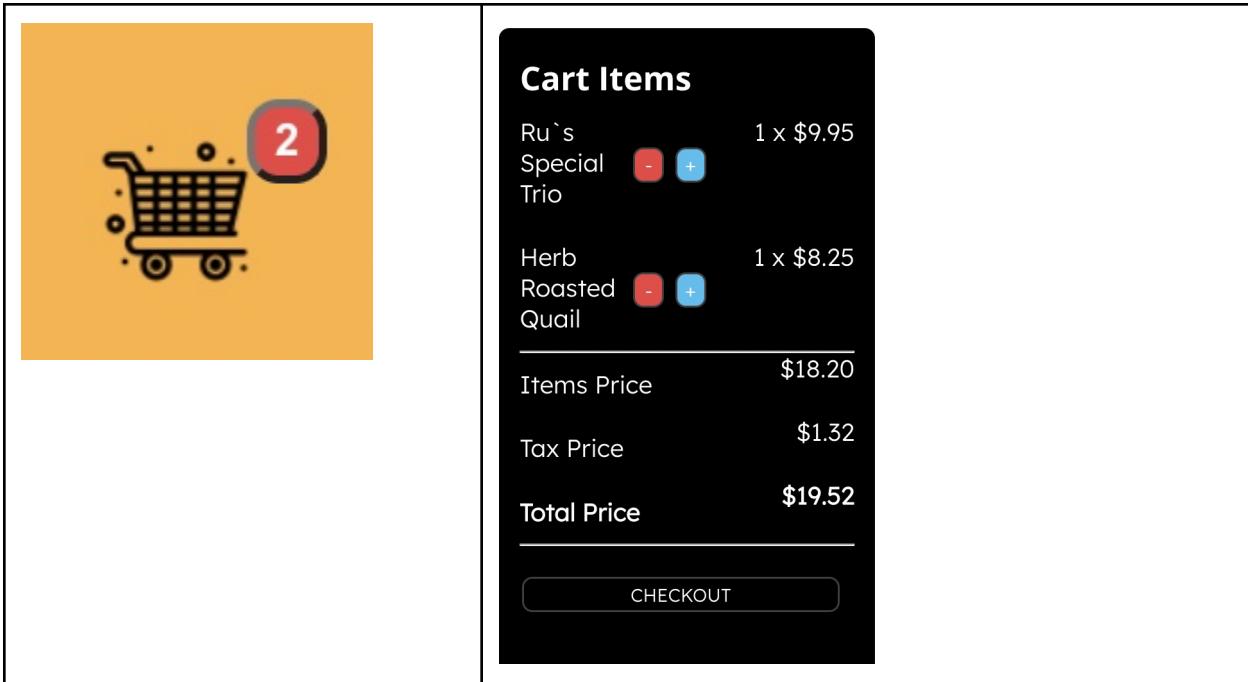
The image shows a user interface for a password reset process. It features a white rectangular card with a black border. At the top left, the title "Password Reset" is displayed in bold black font. Below the title, a message reads "Please answer the following security questions." There are two questions listed: "Question 1" and "Question 2", each followed by a text input field labeled "Answer 1" and "Answer 2" respectively. After the questions, there is a message "Please enter and confirm your new password." followed by two more text input fields labeled "Enter New Password" and "Confirm New Password". At the bottom right of the card is a blue rounded rectangle button labeled "Reset Password".

❖ Description:

The Reset Password page will verify users identities before allowing them to change their password.

- To change to the style of the Verify Your Account page:
frontend/restaurant → src → components → style.css
- To change the texts on the Verify Your Account page:
frontend/restaurant → src → screens → ForgotPassword.js
- To make changes to the backend:
 - backend → routes → Users.js
 - backend → models → Users.js
 - backend → middleware → ResetMiddleware.js
 - backend → config.json

4.10 Cart:



❖ Description:

The Cart icon shows how many items are in the cart. The users use the cart icon to open the shopping cart content.

- To change to the style of the Cart page:
frontend/restaurant → src → components → style.css
- To change the texts or modify anything in the Cart page:
frontend/restaurant → src → screens → Basket.js

4.11 Payment System

❖ Description:

After adding items to the cart, users will have a chance to check their order, enter credit card information and pay. Stripe is used as the payment service for this project.

Figure 4.11.1 Payment System Flowchart

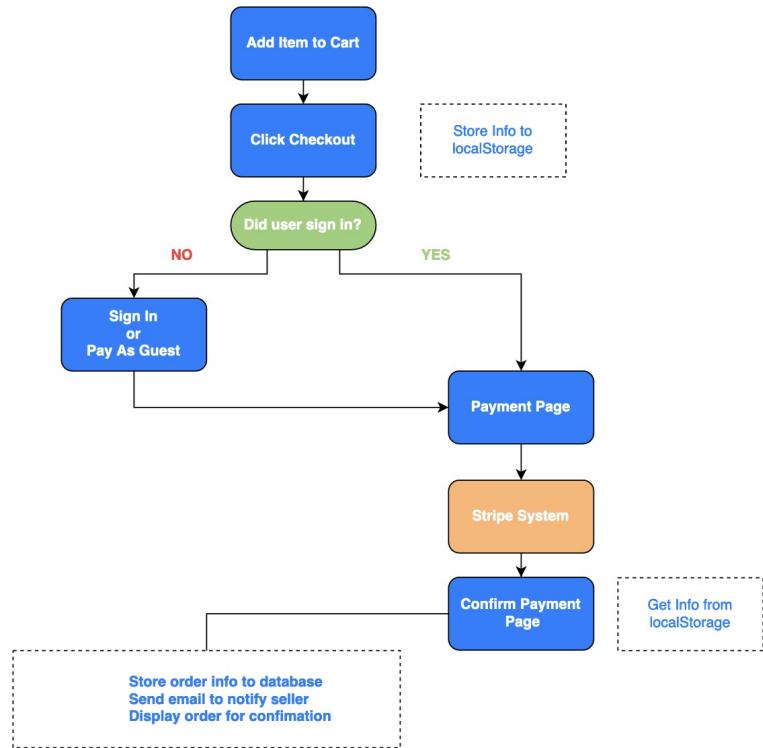


Figure 4.11.2 Verify Order and Pay

Verify and Pay
Verify your order details and pay now!

ORDER SUMMARY	
Herb Roasted Quail	1 x \$8.25
Items Price	\$8.25
Tax Price	\$0.60
Total Price	\$8.85

PAYMENT METHOD

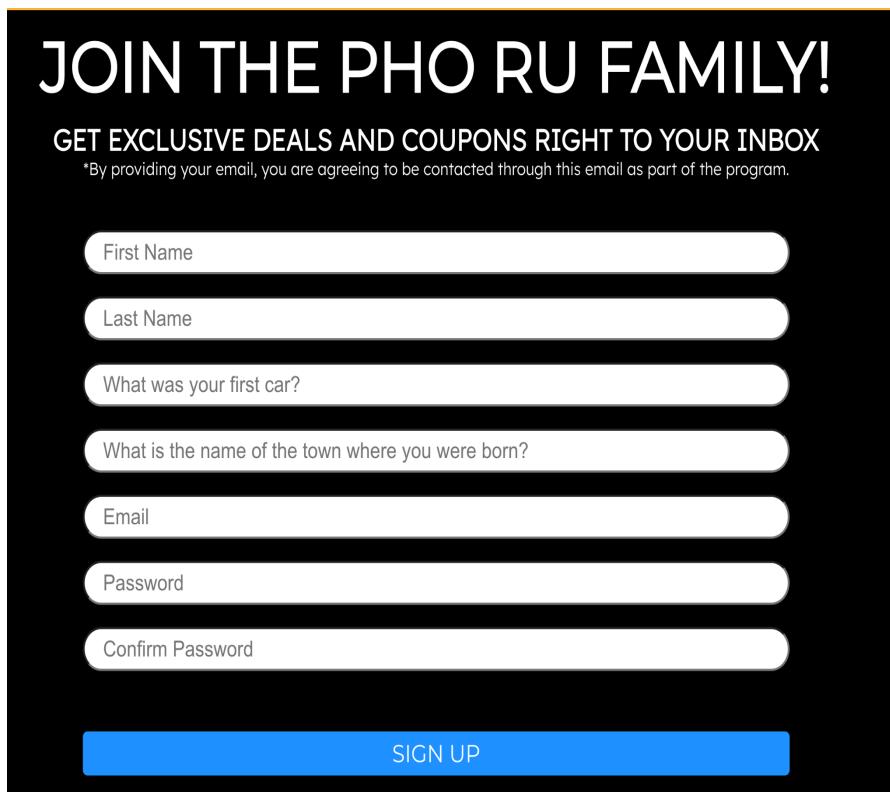
Card number: _____ MM / YY CVC: _____

Code Files related to Order details and payment method:

- To change the style of the Verify and Pay page:
frontend/restaurant → src → components → style.css

- To change the texts in the Verify and Pay page:
frontend/restaurant → src → screens → ConfirmPaymentScreen.js
- To manage payment:
frontend/restaurant → src → components → PaymentForm.js
frontend/restaurant → src → components → StripeContainer.js
- To manage Stripe payment system:
login to <https://dashboard.stripe.com/login>

4.12 Sign Up



- ❖ **Description:**
Pho Ru website allows users to sign up and sign in using an email address. To improve the security aspect, it asks users to answer some security questions.

4.12.1 User Creation

Users can sign up to the system via entering the above form.

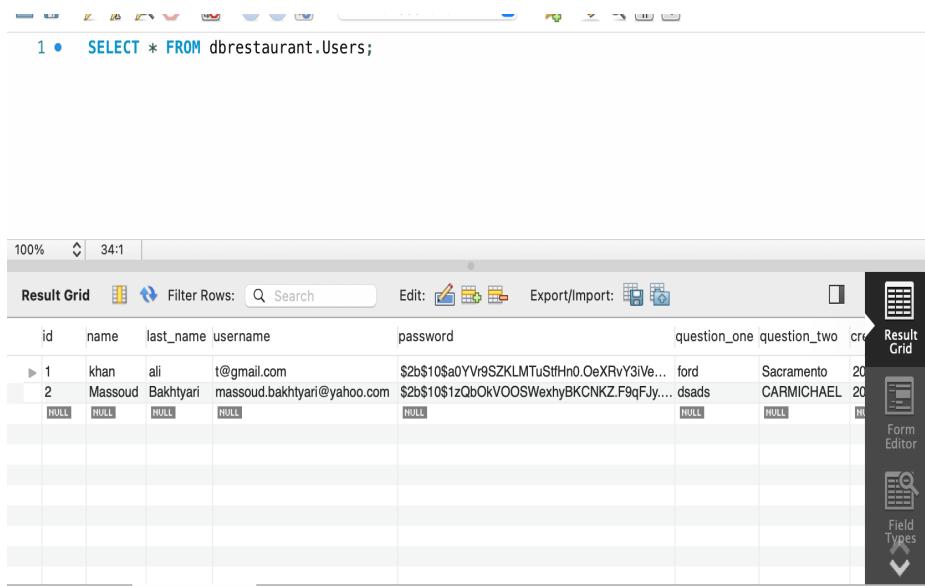
- ➔ Admin will be able to add different security questions or edit the input form by going to these code files:
 - frontend/restaurant → src → screens → Register.js

- Admin will be able to add tables to database
 - backend → models → Users
- To change the style of the page:
 - frontend/restaurant → src → screens → signup.css

4.12.2 Deletion

Admin will be able to delete a user from the database via the MySQL Workbench application:

- Open MySQL Workbench
- Connect it to the server
- To Query a table write: Select * FROM dbrestaurant.Users;
- Click on the row that you want to delete



The screenshot shows the MySQL Workbench interface with a result grid displaying user data from the 'Users' table. The table has columns: id, name, last_name, username, password, question_one, question_two, created_at, updated_at, and deleted_at. Two rows are visible:

	id	name	last_name	username	password	question_one	question_two	created_at	updated_at	deleted_at
▶	1	khan	ali	t@gmail.com	\$2b\$10\$a0YVt9SZKLMTuStfHn0.OeXRVY3lVe...	ford	Sacramento	2023-09-15 10:00:00	2023-09-15 10:00:00	2023-09-15 10:00:00
	2	Massoud	Bakhtyari	massoud.bakhtyari@yahoo.com	\$2b\$10\$1zQbOkVOOSWexhrbKCNkZ.F9qFJy....	dsads	CARMICHAEL	2023-09-15 10:00:00	2023-09-15 10:00:00	2023-09-15 10:00:00
		NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

A vertical toolbar on the right side of the grid provides options: Result Grid (selected), Form Editor, and Field Types.

4.13 User Profile Page



❖ Description:

User Profile page shows users basic info and their order history. It also allows users to change their password.

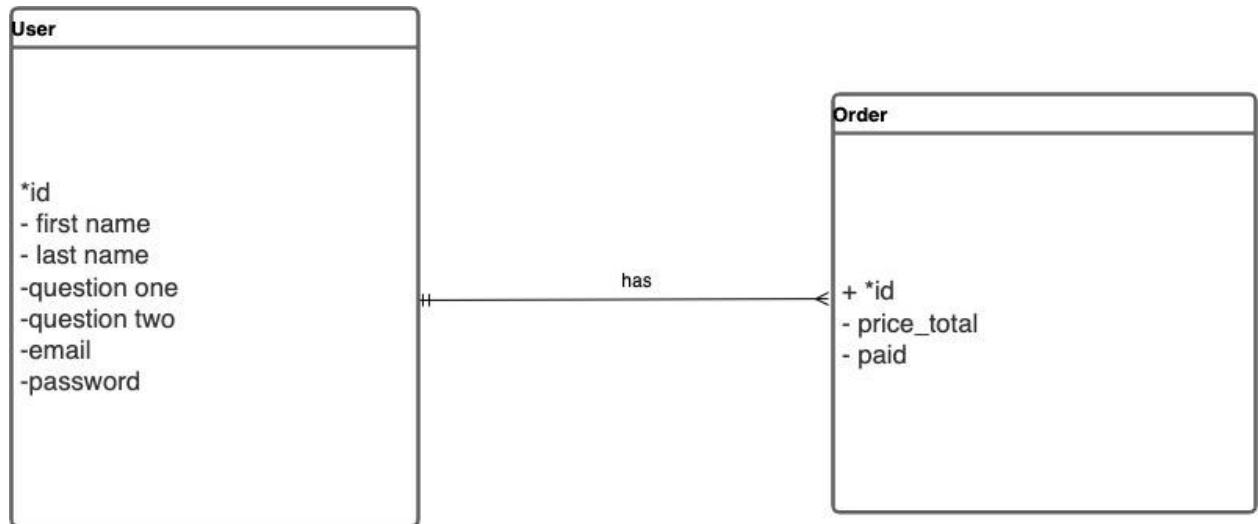
CHANGE YOUR PASSWORD

You can change your password for security reasons or reset it if you forget it. Your Pho Ru Account password is used to access your order history.

- To make some changes to the style of the page:
frontend/restaurant → src → screens → signup.css
- Code files for the backend:
 - backend → routes → Users.js
 - backend → models → Users.js
 - backend → middleware → AuthMiddleware.js
 - backend → config.json

5 Database

We have two tables User and Order.



Contact Information

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