

Group Project Final Write Up – Storefront

Team Members	
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Description:

“The Green Lamp” is a fully functional online nursery website where users can buy fresh plants. The website sells all types of plants including: shrubs, herbs, succulents, and indoor plants. The website includes navigation, home, product, and intermediate pages - FAQ, About, Login/Signup, SystemPreferences & Orders page.

Approach / What We Did:

Bhavani:

- I started by creating a MYSQL database and Express backend server. Created the script to connect to the Database from the backend. Created tables for Users, Products & Orders
- Created a script for adding all the products from the products.json file to the products table automatically.
- Added the main business logic and created REST API endpoints for Authentication using cookie-parser, Users (for login, signup, user Settings pages), Products (search, Home, product details pages), Orders (customer orders)
- Added Password encryption using bcrypt.js node module.
- Added Persistent Login & authentication using Cookie-Parser.
- Handled Response codes and exceptions.
- Updated javascript code for all the applicable pages (to reflect real time data in the database)

Hieu:

- Didn't add anything new for this section

Juve:

- Created the original GET method using the fetch API for the login page which validated if a user existed in the database.
- Created the original POST method using the fetch API for the sign up page which inserted users into the database after a successful sign up.
- Created the original PUT method using the fetch API for the system preferences page which updated the user's settings in the database.
- Implemented simple error handling for the sign up page.
- Assisted on the implementation of the database schema.

Abhiram:

- Didn't add anything new for this section

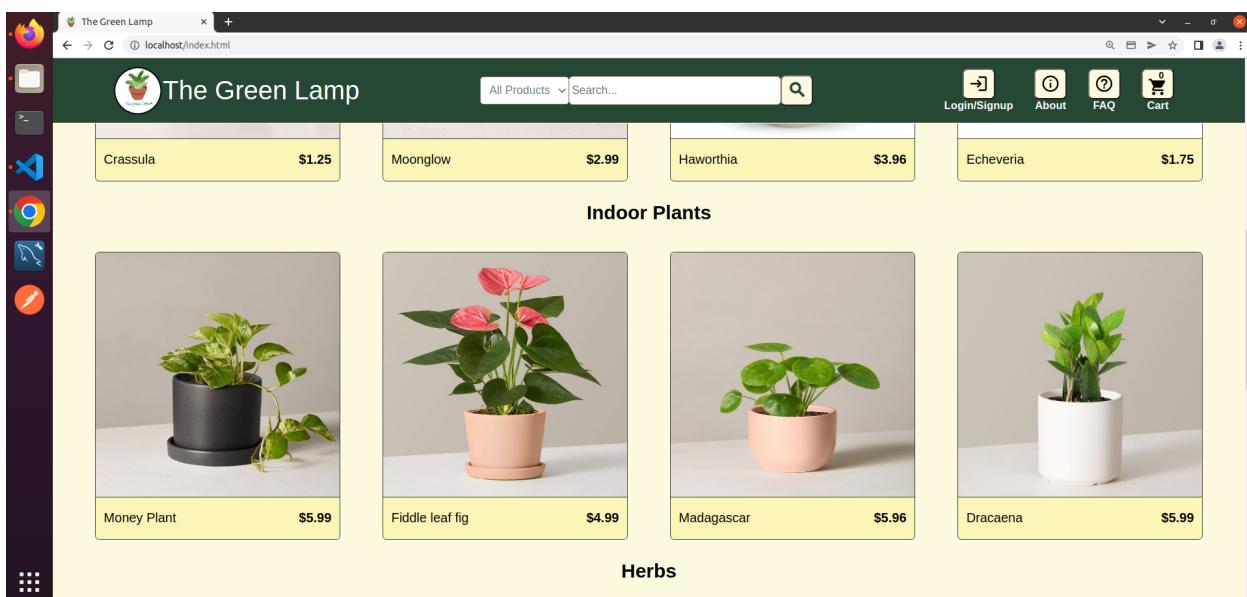
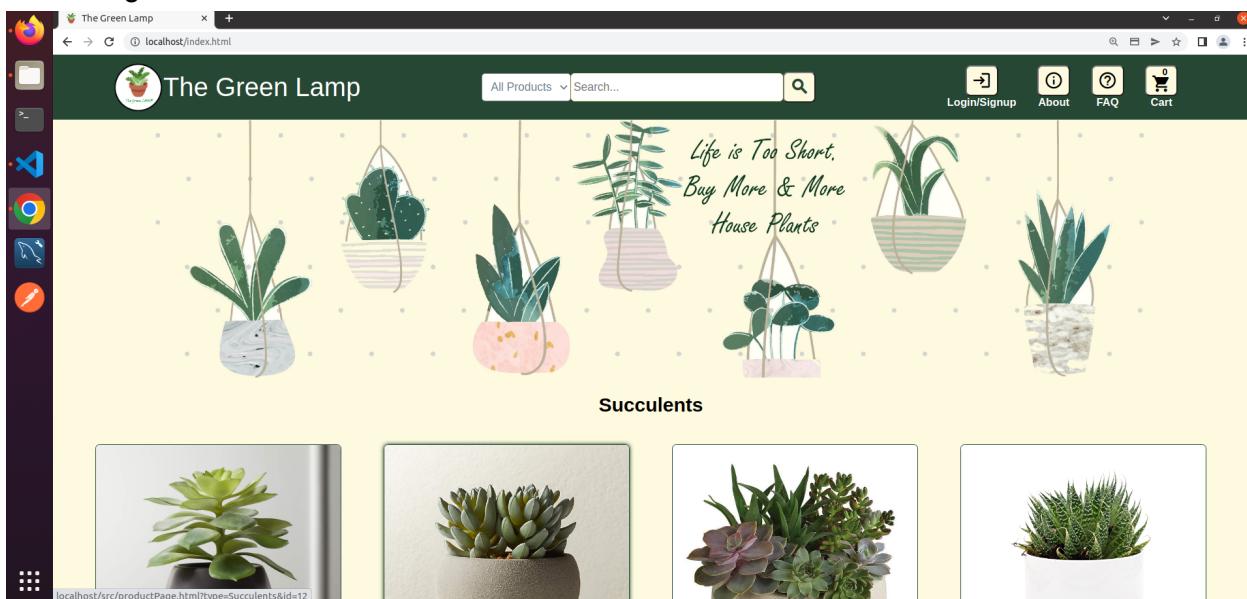
Issues and Resolutions:

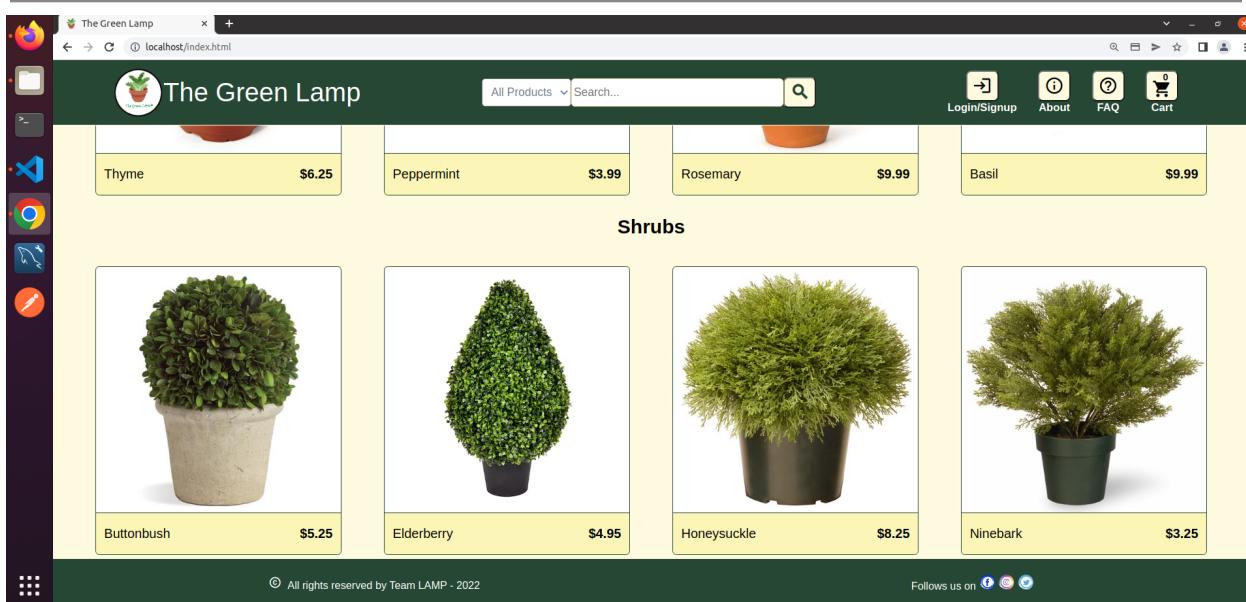
Bhavani:

- Cookie-Parser: This seemed quite easy, until I got to implement it. For the browser to set & get cookies, we have to specifically include Credentials and send the request to the Express server. I didn't know that and I spent a lot of time searching for answers. I found that in one of the Stack Overflow pages.
- I used the Fetch API for the first time. I did not know that the GET method returns a promise which should then be parsed to get the json data. I followed a couple of tutorials to understand the request response objects.
- POST & PUT methods were a bit confusing especially with the cookie-parser responses. I was able to finally send the data over using JSON.stringify()

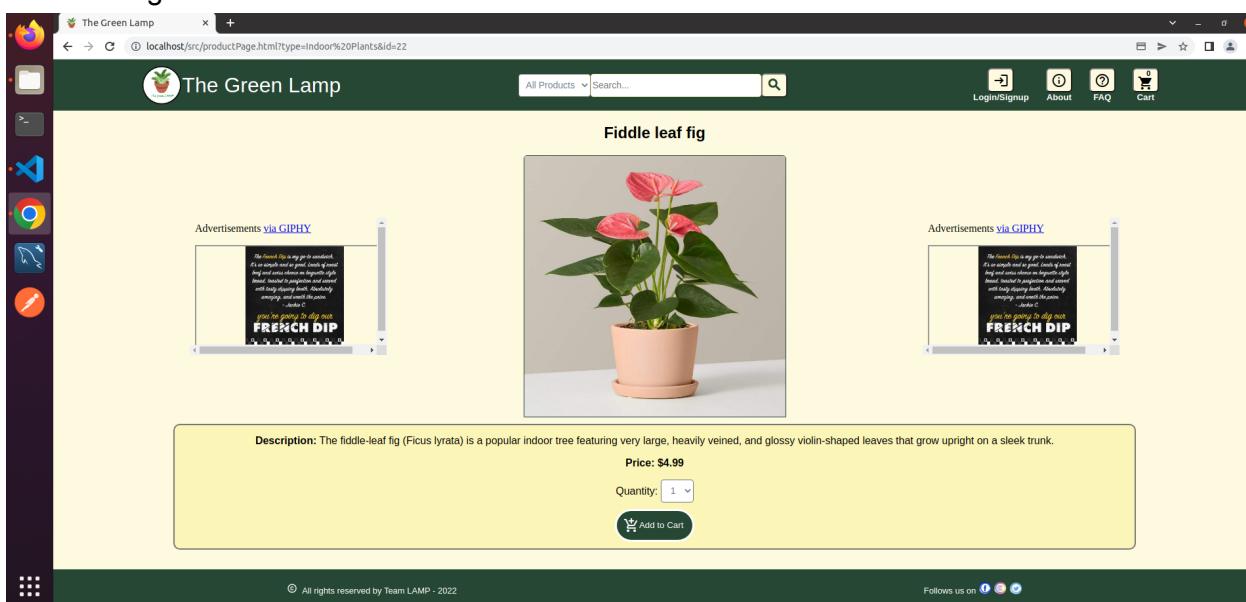
Juve:

- Fetch API: The Fetch API was very difficult for me at first because it was my first time using it. After a couple days of using it and watching videos about it, I got the hang of it. The most difficult part for me was learning the POST and PUT methods because they have a different syntax than the GET method. Although it was tough to learn, it turned out to be extremely useful and I learned a lot from it.

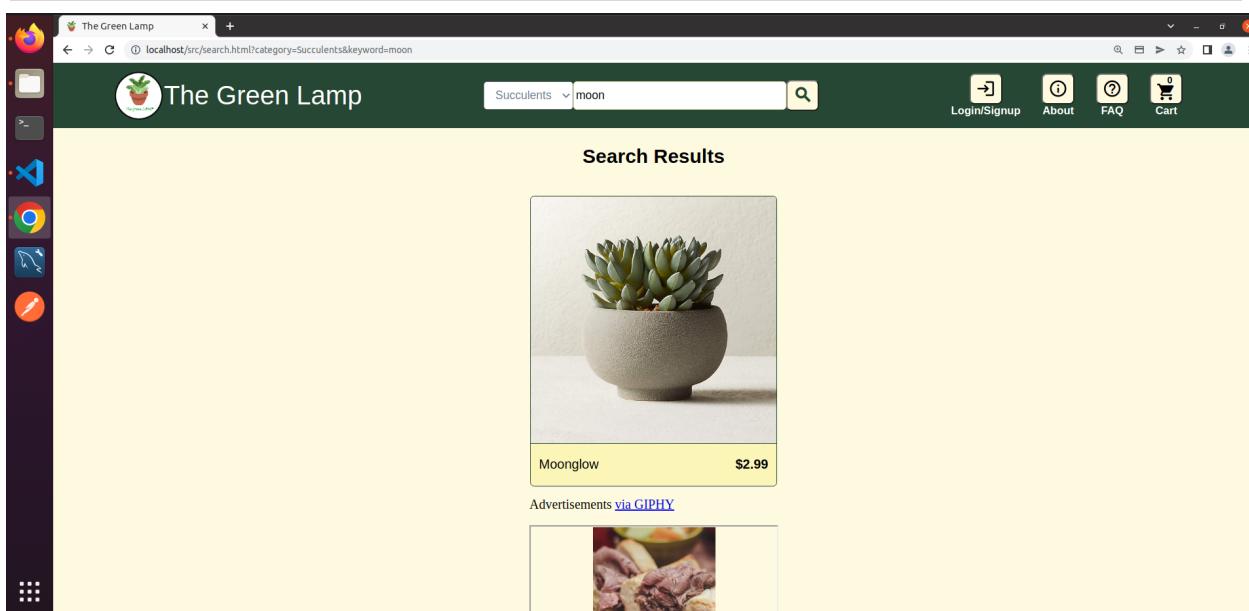
Source Code:<https://github.com/CSC317-2022-Spring/csc317-group-html-bhavani-goruganthu>**Screen shots:****Home Page:**



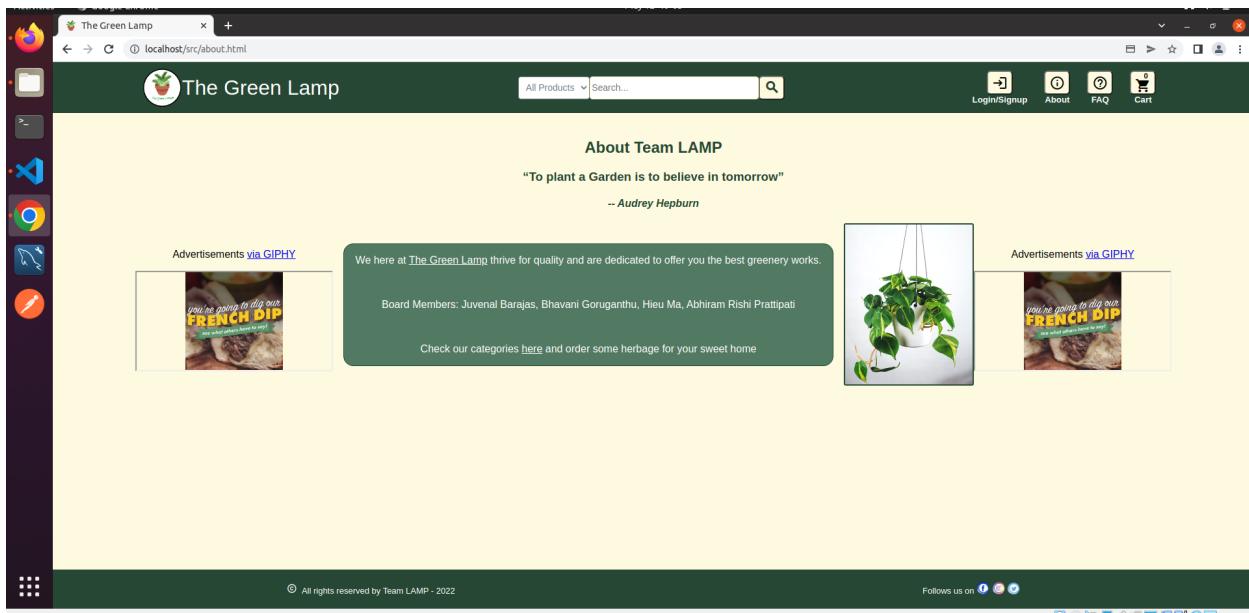
Product Page:



Search Page:



About:



FAQ:

The screenshot shows a Firefox browser window displaying the 'FAQ' page of 'The Green Lamp' website. The page has a dark green header with the logo 'The Green Lamp'. Below the header is a search bar and navigation links for 'Login/Signup', 'About', 'FAQ', and 'Cart'. The main content area is titled 'Any Questions?' and contains a section for 'Frequently Asked Questions' with five numbered items:

1. Why Plants?
2. How do plants grow?
3. How do I fertilize my plant?

We recommend following the instructions on the packaging of whatever fertilizer you choose. Many are added to liquids and used in your watering can while watering. All fertilizers, whether liquid, dissolvable, or granular are applied to the potting mix (not the plant itself/the plant's leaves).
4. What are the signs of a struggling plant?
5. Why isn't my plant growing anymore?

At the bottom of the page, there is a footer with copyright information: 'All rights reserved by Team LAMP - 2022' and social media links for Facebook, Twitter, and YouTube.

Empty Cart:

The screenshot shows a Firefox browser window displaying the 'Cart' page of 'The Green Lamp' website. The page has a dark green header with the logo 'The Green Lamp'. Below the header is a search bar and navigation links for 'Login/Signup', 'About', 'FAQ', and 'Cart'. The main content area displays a message: 'Your Shopping Cart is Empty! Add some plants!' On the right side, there is a 'Similar Products' section featuring two items:

Product	Price
Crassula	\$1.25
(Image of a small succulent plant)	

At the bottom of the page, there is a footer with copyright information: 'All rights reserved by Team LAMP - 2022' and social media links for Facebook, Twitter, and YouTube.

Cart with Items:

The Green Lamp

Shopping Cart (Count: 5)

Product Image	Product Name	Price / Unit	Quantity	Price
	Crassula	\$1.25	3	\$3.75
	Peppermint	\$3.99	1	\$3.99
	Rosemary	\$9.99	1	\$9.99
Subtotal: \$17.73				

CLEAR CART **PROCEED TO CHECKOUT**

Similar Products

- Crassula \$1.25
-

User Logged In - Cookie Created & Navbar updated

The Green Lamp

Life is Too Short,
Buy More & More
House Plants

Succulents

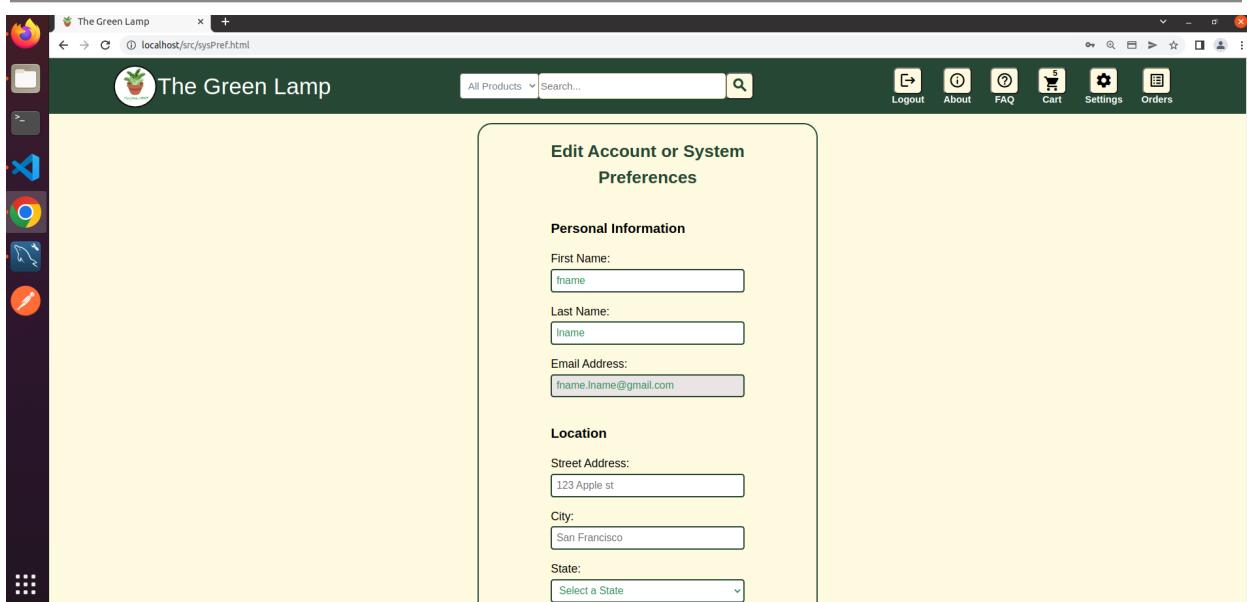
Application

Name	Value	Domain	Path	Expires / Max-Age	Size	HttpOnly	Secure	SameSite	SameParty	Partition Key	Priority
loggedInUserData	%A%7B%2userEmail%22%3A%2fname.name%40gmail.com%22%7D	localhost	/	Session	73	✓	✓	None	None		Medium

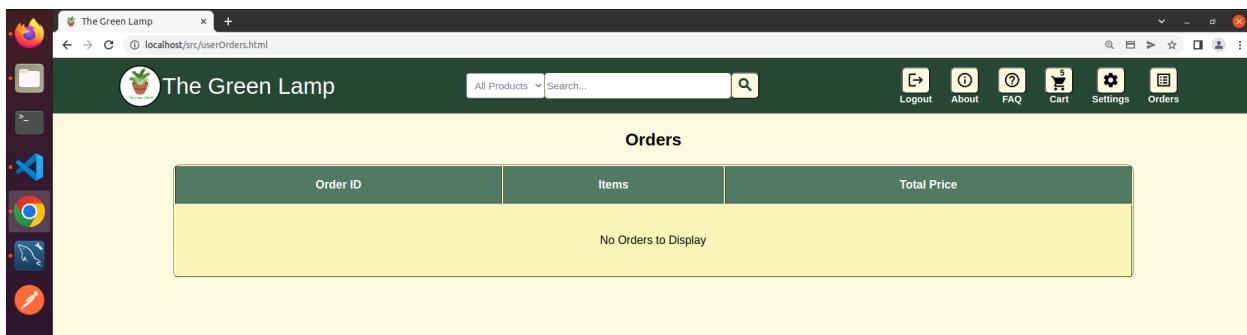
Storage

- Local Storage
- Session Storage
- IndexedDB
- Web SQL
- Cookies
 - http://localhost
 - Trust Tokens
 - Interest Groups

Account Settings page:



No orders :



Checkout:

The screenshot shows a web browser window for 'The Green Lamp' website. At the top, there's a success message: 'localhost says Thank you for Placing the Order!!'. Below it, the 'Shipping Address' section contains fields for First name, Last name, Phone number, Street Address, Apt, City, State, and Zipcode. To the right, the 'Review Your Order' section displays a table of items: Crassula (\$1.25), Peppermint (\$3.99), and Rosemary (\$9.99). The total price is \$25.92. A note at the bottom says 'Note: Expect Delivery By Tomorrow 5 PM'.

Product Image	Product Name	Price / Unit	Quantity	Price
	Crassula	\$1.25	3	\$3.75
	Peppermint	\$3.99	1	\$3.99
	Rosemary	\$9.99	1	\$9.99

Subtotal: \$17.73
Tax: \$3.19
Shipping: \$5.00
Total Price: \$25.92

Note: Expect Delivery By Tomorrow 5 PM

PLACE ORDER

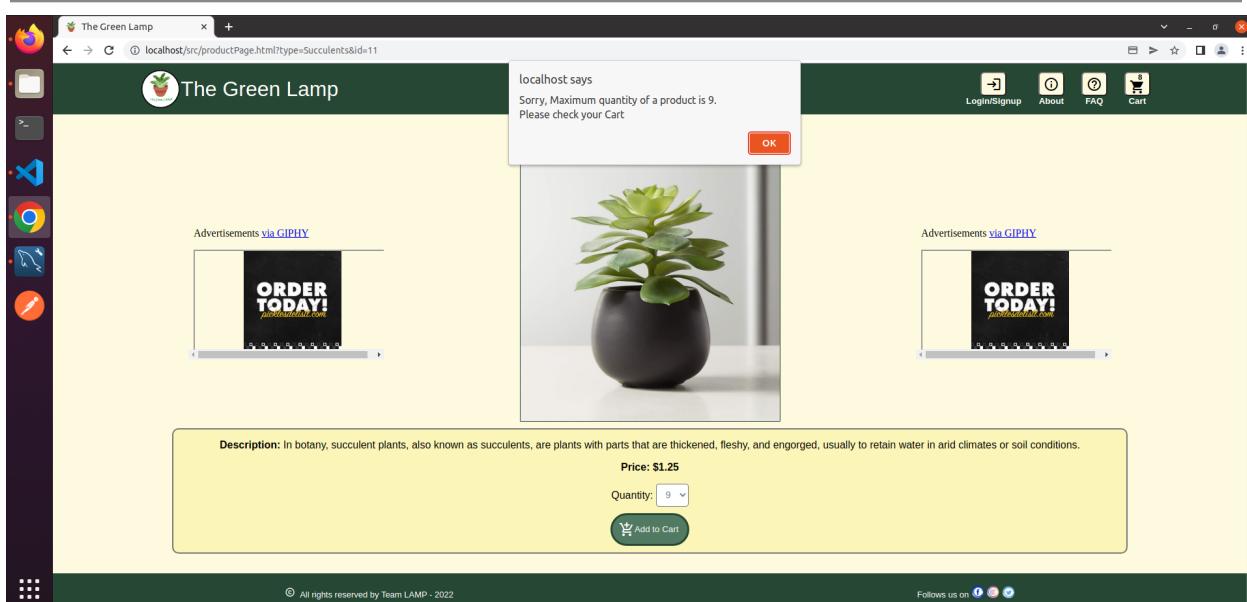
Orders:

The screenshot shows the 'Orders' page for 'The Green Lamp'. It lists a single order with Order ID 'eUGHUBLb_4oHqUD5yRe9O'. The order consists of three items: Crassula, Peppermint, and Rosemary, each with its price per unit, quantity, and total price.

Order ID	Items	Total Price
eUGHUBLb_4oHqUD5yRe9O	 Crassula Price/Unit: \$1.25 Quantity: 3 Peppermint Price/Unit: \$3.99 Quantity: 1 Rosemary Price/Unit: \$9.99 Quantity: 1	\$25.92

Alert Messages:

Max Cart Product Quantity is 9:



Clear Cart Confirmation:

Product Image	Product Name	Price / Unit	Quantity	Price
	Crassula	\$1.25	<input type="button" value="3"/>	\$3.75
	Peppermint	\$3.99	<input type="button" value="1"/>	\$3.99
	Rosemary	\$9.99	<input type="button" value="1"/>	\$9.99

Subtotal: \$17.73

CLEAR CART **PROCEED TO CHECKOUT**

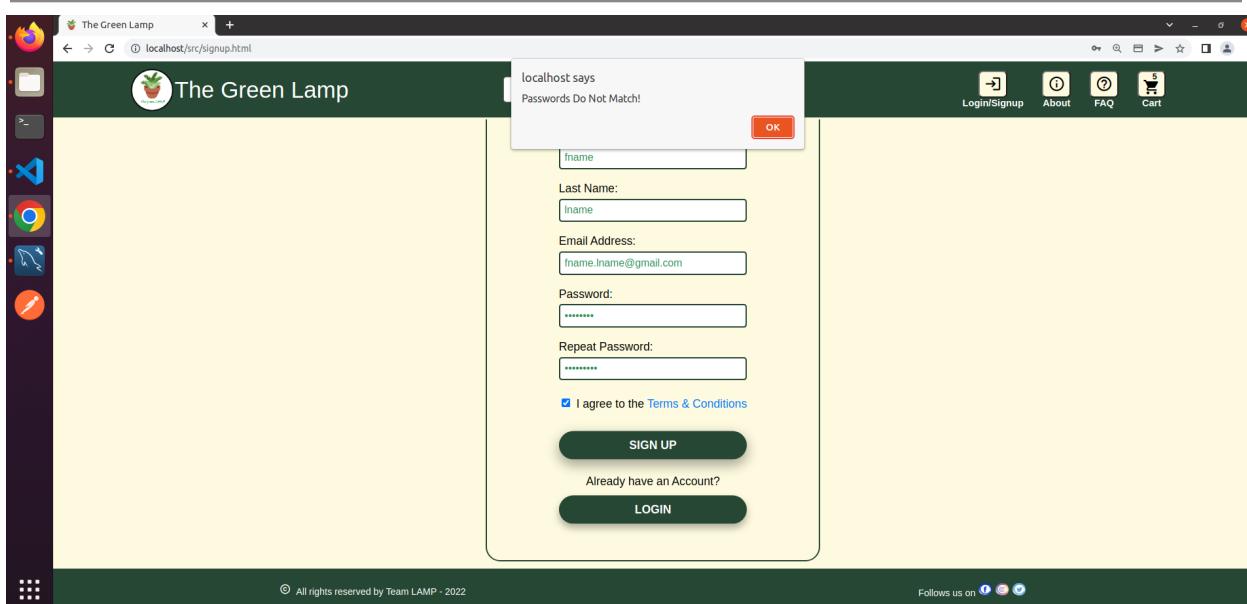
Required Fields Error:

The screenshot shows a Firefox browser window displaying the 'Sign Up' page for 'The Green Lamp'. The page has a light green background with a dark green header bar. The header includes a logo, a search bar, and navigation links for 'Login/Signup', 'About', 'FAQ', and 'Cart'. The main content area is titled 'Sign Up' and contains fields for First Name, Last Name, Email Address, Password, and Repeat Password. Below these fields is a checkbox for agreeing to 'Terms & Conditions'. A large green 'SIGN UP' button is at the bottom left, and a 'LOGIN' button is at the bottom right. The 'Email Address' field is highlighted with a red border and has an error message: 'Please fill out this field.' and 'e.g. john@gmail.com'.

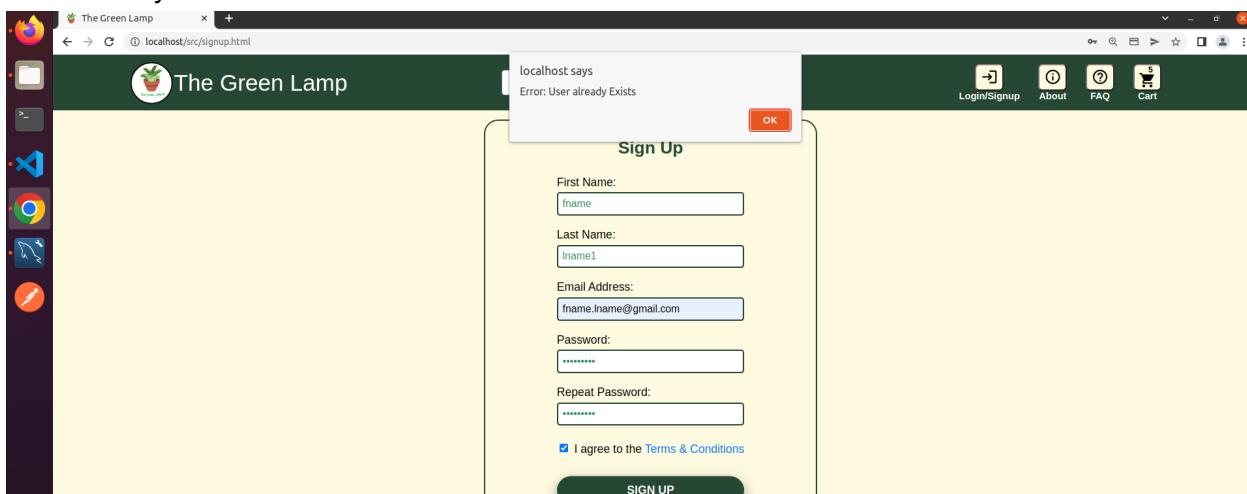
Format Error:

This screenshot is identical to the one above, showing the 'Sign Up' page for 'The Green Lamp'. However, the 'Email Address' field now contains the invalid value 'fname.lname'. An error message box is displayed above the field, stating: 'Please include an '@' in the email address. 'fname.lname' is missing an '@'.' The rest of the form and its validation errors remain the same.

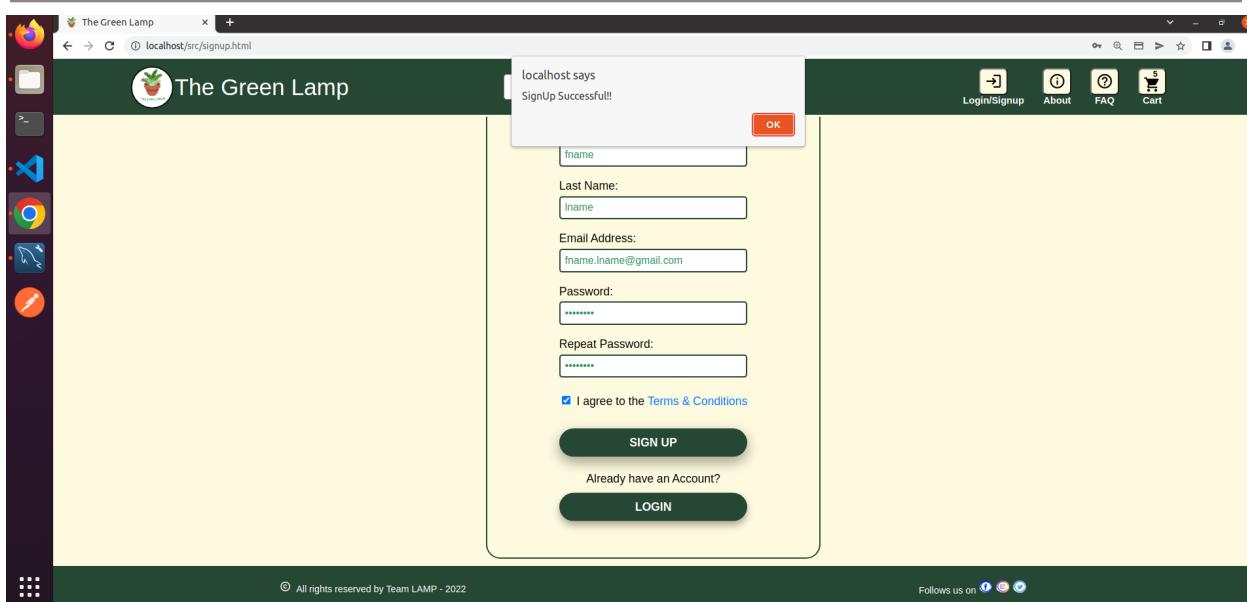
Passwords do not match:



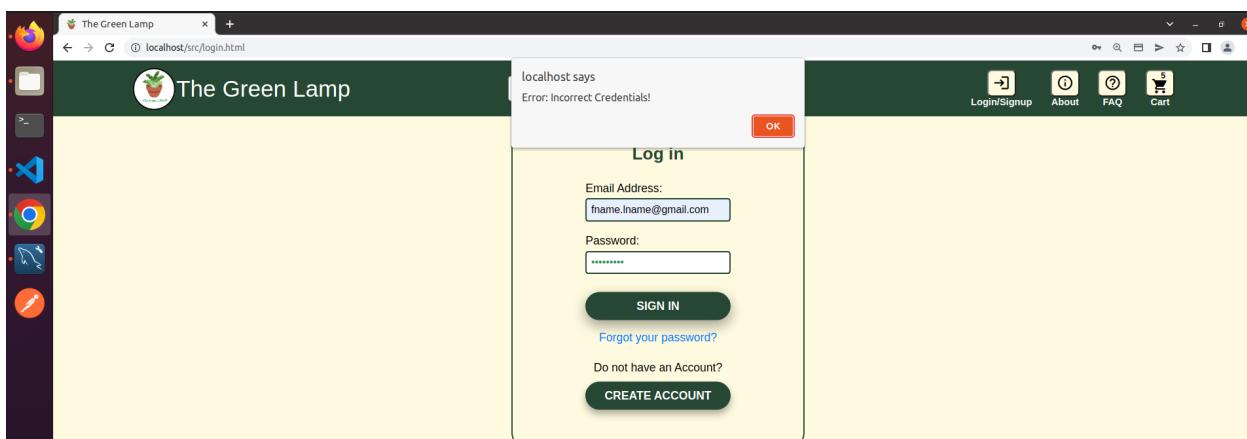
User already Exists:



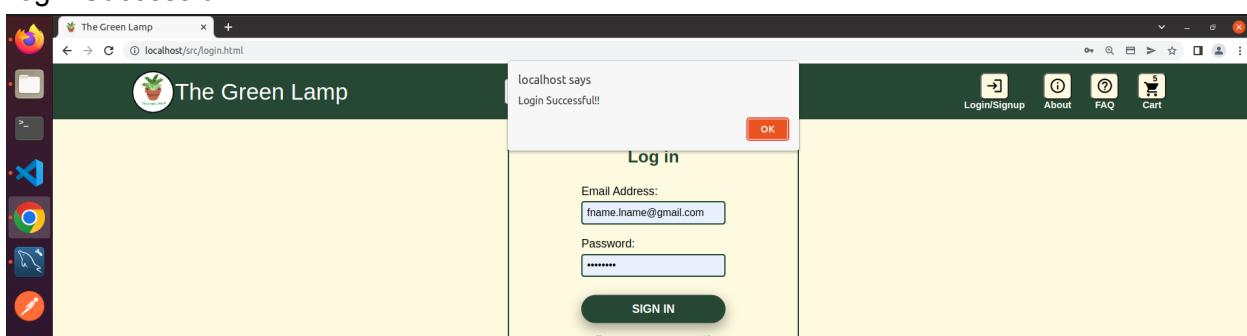
Signup Successful:



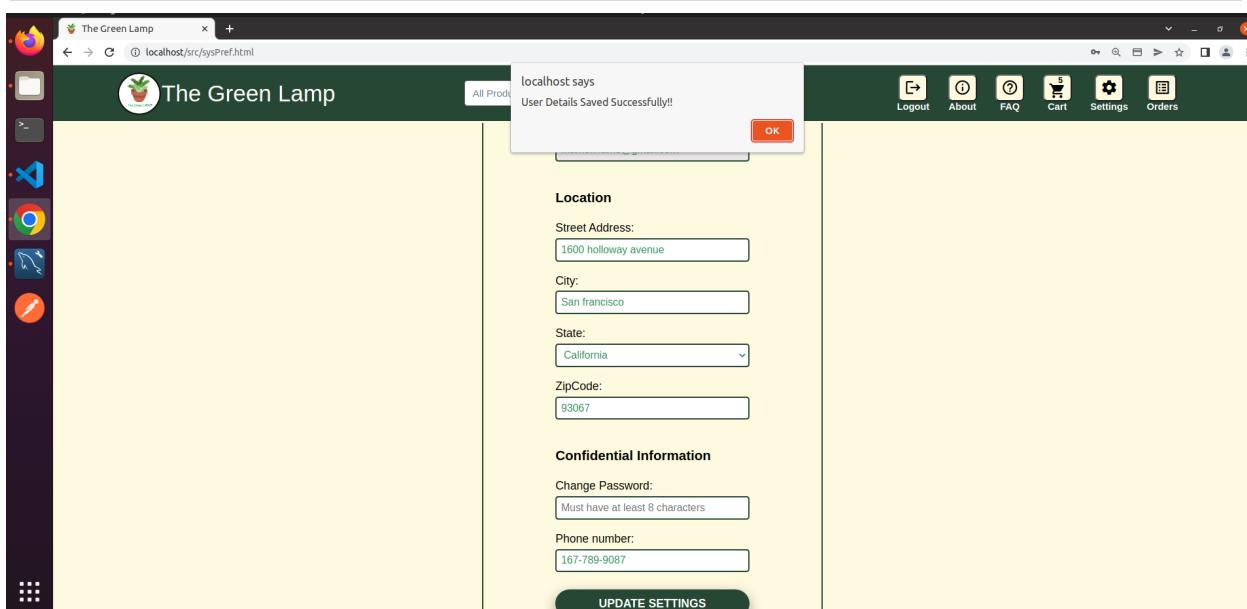
Incorrect Credentials:



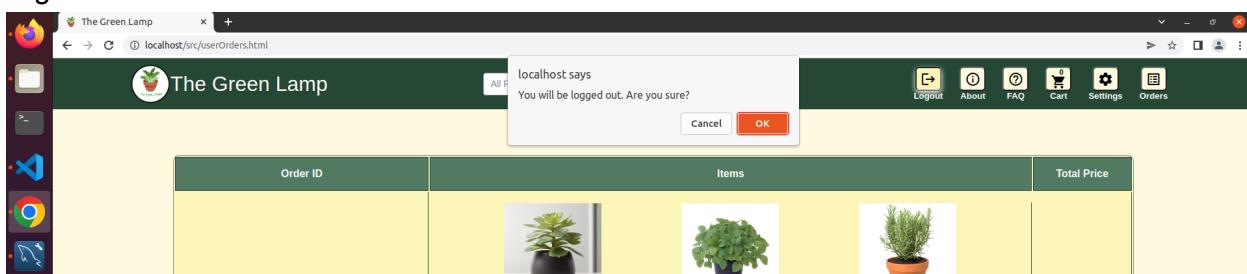
Login Successful:



User Details Saved Successfully:



Logout Confirmation:



Database:

Schema:

```

1 •  create database theGreenLamp;
2 •  use theGreenLamp;
3
4 •  CREATE TABLE Users (
5     user_id VARCHAR(100) NOT NULL,
6     first_name VARCHAR(100) NOT NULL,
7     last_name VARCHAR(100) NOT NULL,
8     email VARCHAR(500) NOT NULL UNIQUE,
9     street_address VARCHAR(100),
10    city VARCHAR(100),
11    state VARCHAR(100),
12    zipcode VARCHAR(10),
13    password VARCHAR(100) NOT NULL,
14    phone_number VARCHAR(50),
15    PRIMARY KEY (user_id));
16
17 •  CREATE TABLE Products (
18     product_id INT NOT NULL,
19     productCategory VARCHAR(45) NOT NULL,
20     productName VARCHAR(100) NOT NULL,
21     productDescription VARCHAR(5000) NOT NULL,
22     productImageUrl VARCHAR(500) NOT NULL,
23     productPrice FLOAT NOT NULL,
24     PRIMARY KEY (product_id));
25
26 •  CREATE TABLE Orders (
27     order_id VARCHAR(100) NOT NULL,
28     userEmail VARCHAR(500) NOT NULL,
29     products TEXT(90000) NULL,
30     subTotal FLOAT NOT NULL,
31     tax FLOAT NOT NULL,
32     shipping FLOAT NOT NULL,
33     totalPrice FLOAT NOT NULL,
34     PRIMARY KEY (order_id));
35

```

Products Table:

1 • SELECT * FROM Products;

2

Result Grid Filter Rows: Edit: Export/Import: Wrap Cell Content:

#	product_id	productCategory	productName	productDescription	productImageUrl	productPrice
1	11	Succulents	Crassula	In botany, succulent plants, also kn...	/assets/images/product-images/scl...	1.25
2	12	Succulents	Moonglow	Moonglow is an incredible succulen...	/assets/images/product-images/scl...	2.99
3	13	Succulents	Haworthia	Haworthia is a large genus of small ...	/assets/images/product-images/scl...	3.96
4	14	Succulents	Echeveria	Echeverias are native to remote, m...	/assets/images/product-images/scl...	1.75
5	21	Indoor Plants	Money Plant	The Money Plant has rounded flat c...	/assets/images/product-images/ho...	5.99
6	22	Indoor Plants	Fiddle leaf fig	The fiddle-leaf fig (Ficus lyrata) is a ...	/assets/images/product-images/ho...	4.99
7	23	Indoor Plants	Madagascar	Madagascar is a houseplant that ha...	/assets/images/product-images/ho...	5.96
8	24	Indoor Plants	Dracaena	Dracaena is a genus of about 120 s...	/assets/images/product-images/ho...	5.99
9	31	Herbs	Thyme	Thyme is the herb of some member...	/assets/images/product-images/her...	6.25
10	32	Herbs	Peppermint	Peppermint is a hybrid mint, a cross...	/assets/images/product-images/her...	3.99
11	33	Herbs	Rosemary	Salvia rosmarinus, commonly know...	/assets/images/product-images/her...	9.99
12	34	Herbs	Basil	Basil, also called great basil, is a cu...	/assets/images/product-images/her...	9.99
13	41	Shrubs	Buttonbush	Cephaelanthus occidentalis is a spec...	/assets/images/product-images/shr...	5.25
14	42	Shrubs	Elderberry	Sambucus is a genus of flowering p...	/assets/images/product-images/shr...	4.95
15	43	Shrubs	Honeysuckle	Honeysuckles are arching shrubs o...	/assets/images/product-images/shr...	8.25
16	44	Shrubs	Ninebark	Physocarpus, commonly called nine...	/assets/images/product-images/shr...	3.25

Users Table:

Query 1 • users

products Orders

Result Grid Filter Rows: Edit: Export/Import: Wrap Cell Content:

1 • SELECT * FROM Users;

#	user_id	first_name	last_name	email	street_address	city	state	zipcode	password	phone_number
1	I74kWPS1hUwm...	fname	lname	fname.lname@gmail.com	1600 hollow...	Sa...	CA	93067	\$2a\$10\$7acl9SYH3FSw16OmQ4M...	167-789-9087

Orders table:

Query 1 • users

products Orders

Result Grid Filter Rows: Edit: Export/Import: Wrap Cell Content:

1 • SELECT * FROM Orders;

#	order_id	userEmail	products	subTotal	tax	shipping	totalPrice
1	eUGHUBLb_4oHqUD5yRe9O	fname.lname@gmail.com	[{"id":11,"quantity":3,"type":"Succulent"}]	17.73	3.19	5	25.92