

User Manual

# Smart Vending Machine

---

## Group 1

28th May, 2021

**Bragadeeshan S E/16/055**

**Karikaran V E/16/172**

**Girishikan S E/16/115**



## CONTENT

1. The Introduction .....	01
2. The Box includes.....	03
3. The Overview of the Device .....	03
4. The Walkthrough of the Web Application .....	05
5. Device Walk Through .....	15
6. The Maintenance of the Device .....	15

---

## The Introduction

The Smart Vending machine is an automated item dispensing machine which interacts with the cloud and a web application. The Machine was created to overcome the problems of the traditional vendings. The web application acts as an online store and Prints a QR code on the screen which is used to buy items from the smart vending machine. This Vending machine is power efficient, easy to use and Fast. The machine can connect to home Wifis and any kind of internet connection. The Vending machine is powered by Raspberry Pi 3 Model B which uses a Quad Core 1.2GHz Broadcom BCM2837 64bit Processor.

---

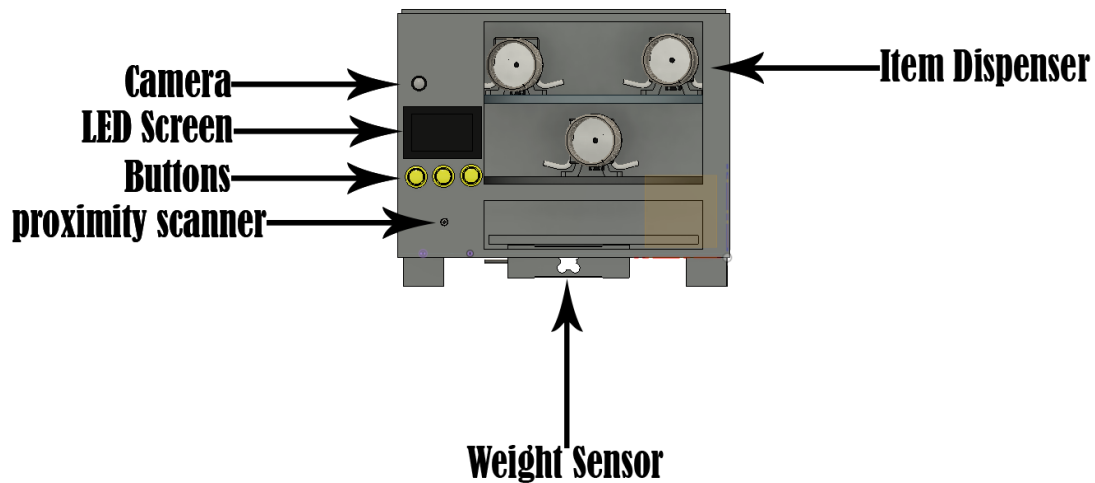
## The Box includes

1. Vending Machine
2. 5.1V Power Supply Charger
3. User Manual

## The Overview of the Device

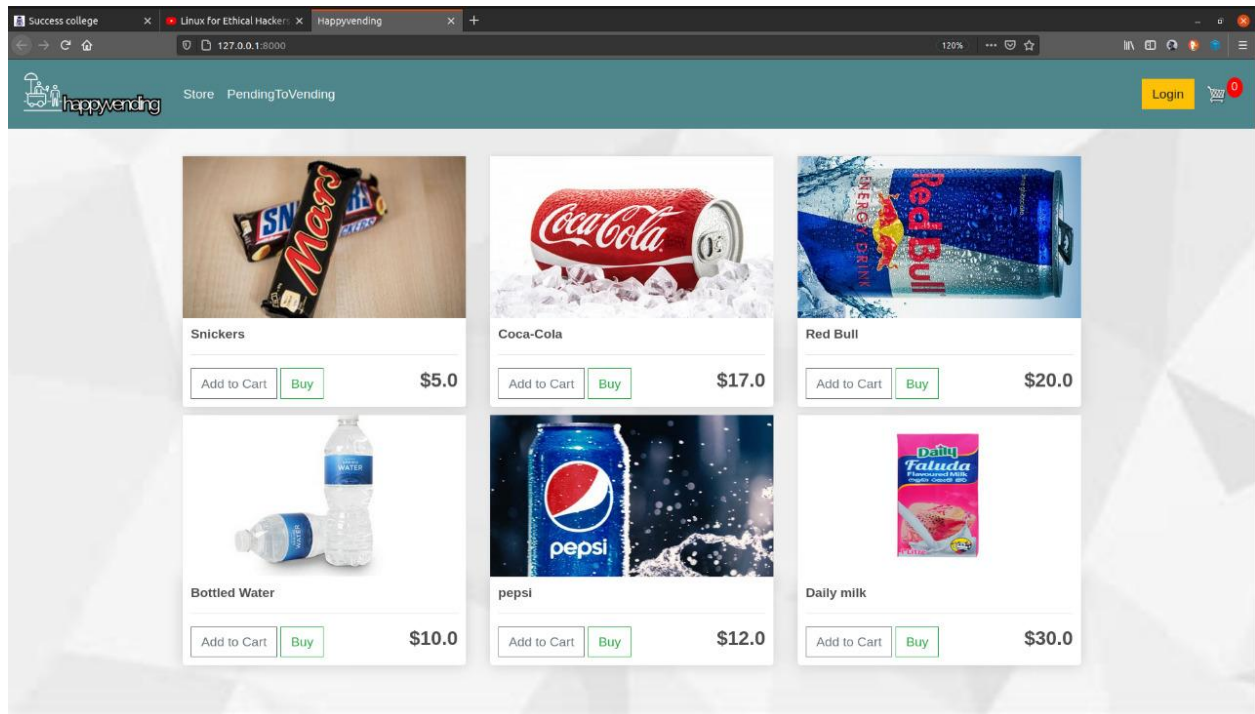
The Overall view of the Vending machine is given below. The vending machine is surrounded by a **rigid wooden body** and a **fiberglass** to display the Items in the Vending machine. There is a **Proximity sensor** to make sure the vending machine only works when someone is in front of the Vending machine. This mechanism makes sure the Vending machine is power efficient. The Vending machine needs a **5.1 V power supply** to run. Also There is a **Camera** to read the **QR code** that is presented by the user. And a small screen to interact with the vending machine.

NOTE: Images may vary from actual Vending Machine



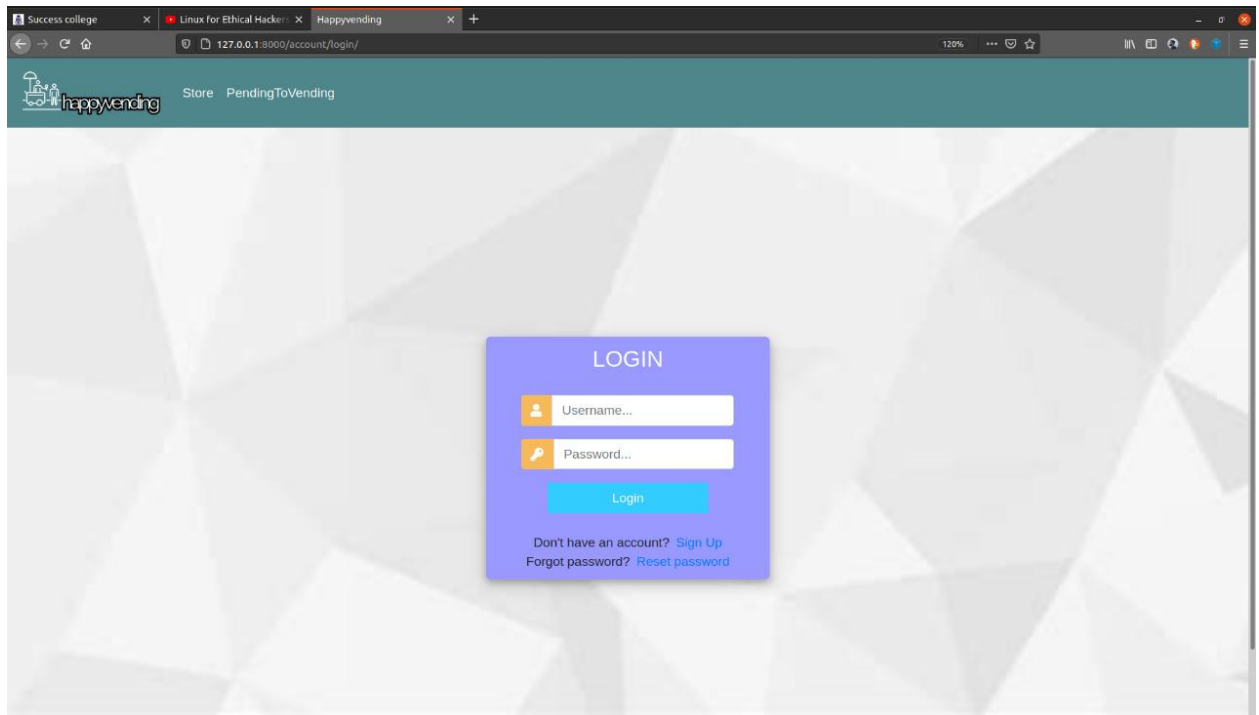
**The Item Dispenser** is a Stepper Motor which can control the revolutions according to the number of items dispensed in that way it is made sure the Item is dispensed or not. The **Weight Sensor** is there to make sure that the Item dispensed has reached the User By sensing the weight changes.

# The Walkthrough of the Web Application

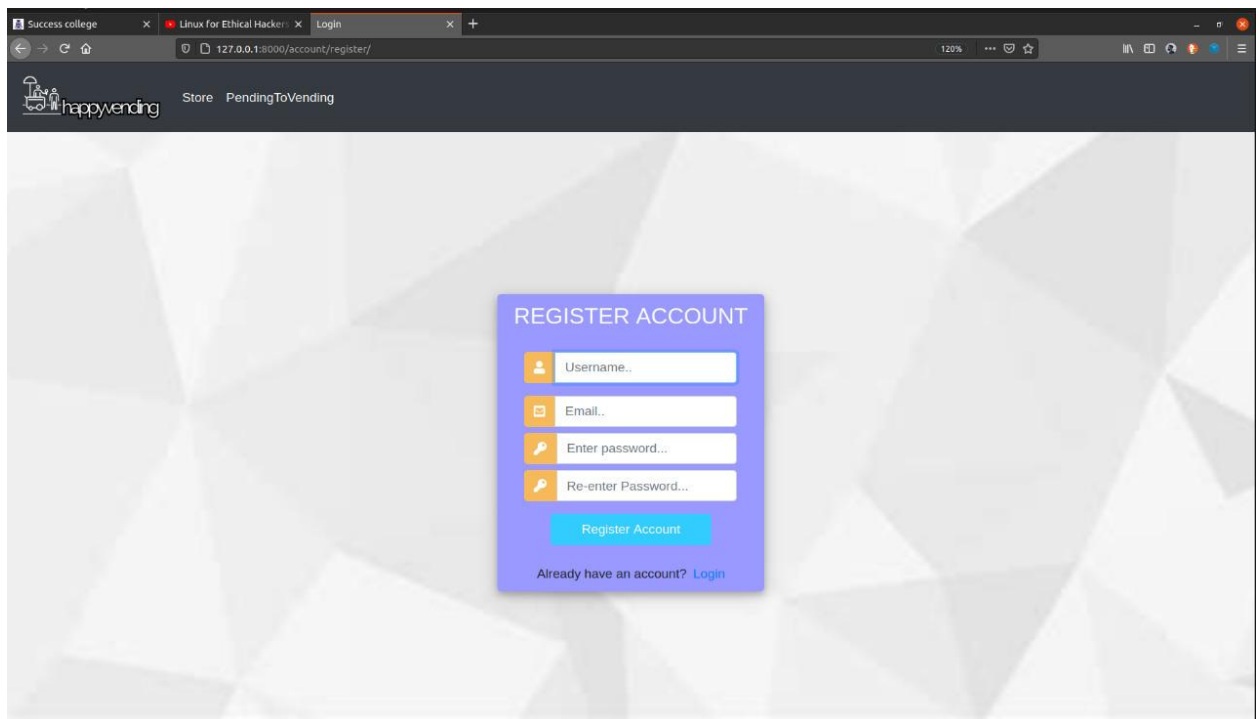


1. The Website gets you to this Home page which Can be used to directly buy items or you can sign in and buy things If you sign in the company can give you discounts or other options.And also from the Homepage you can go to the cart which has the items you selected and the total amount.Other than that you can also go to the tab pending orders and use the QR codes to get the paid items to dispense.



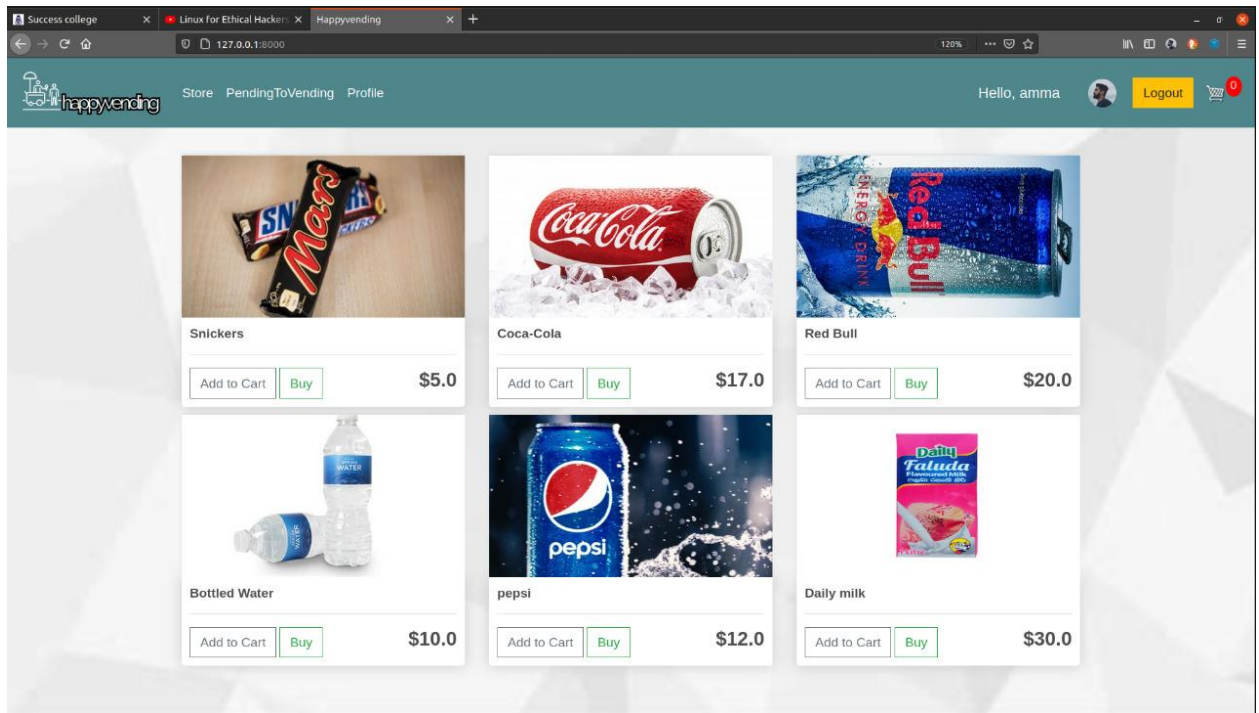


2. This Page is the page you get if you want to **Login**. You can type in your login credentials and get into the account where you can see your **previous orders** and etcs. Or If you don't have an account you can go to the **Signup** option and Sign up for a new account. There is an option to help you **reset your password** as well if you forget.

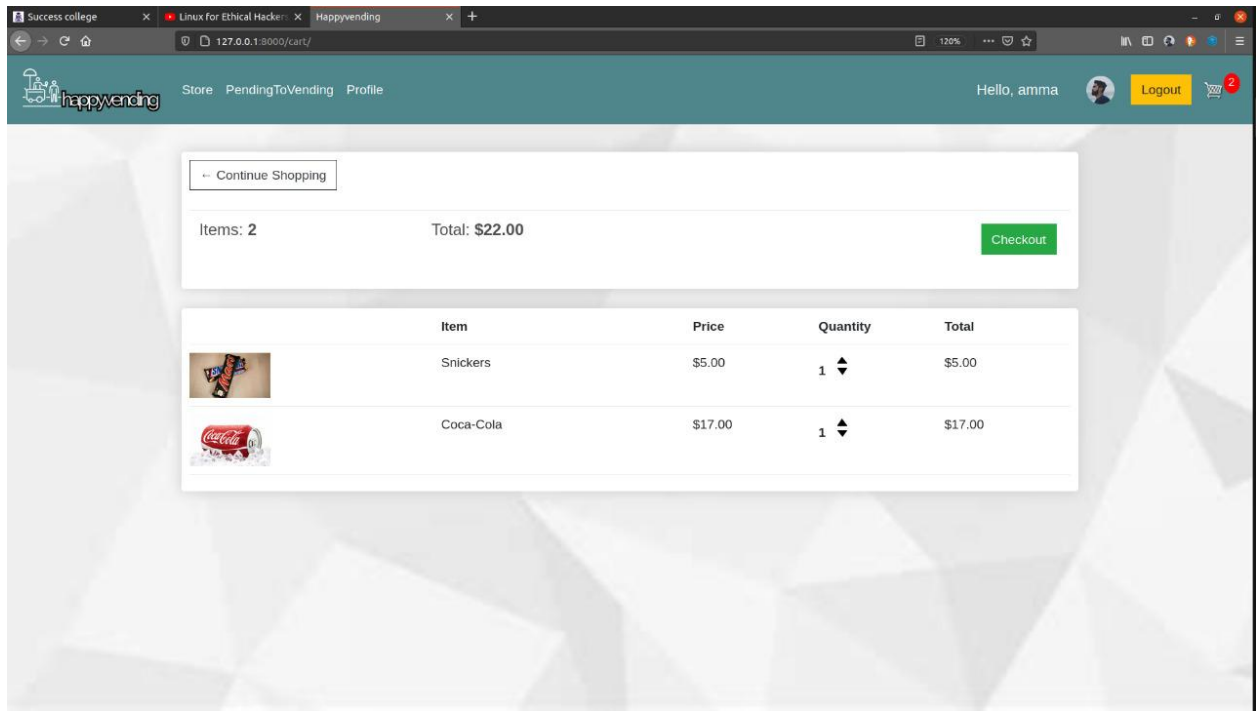


3. This is the SignUp page where you can Sign up for a new Account.

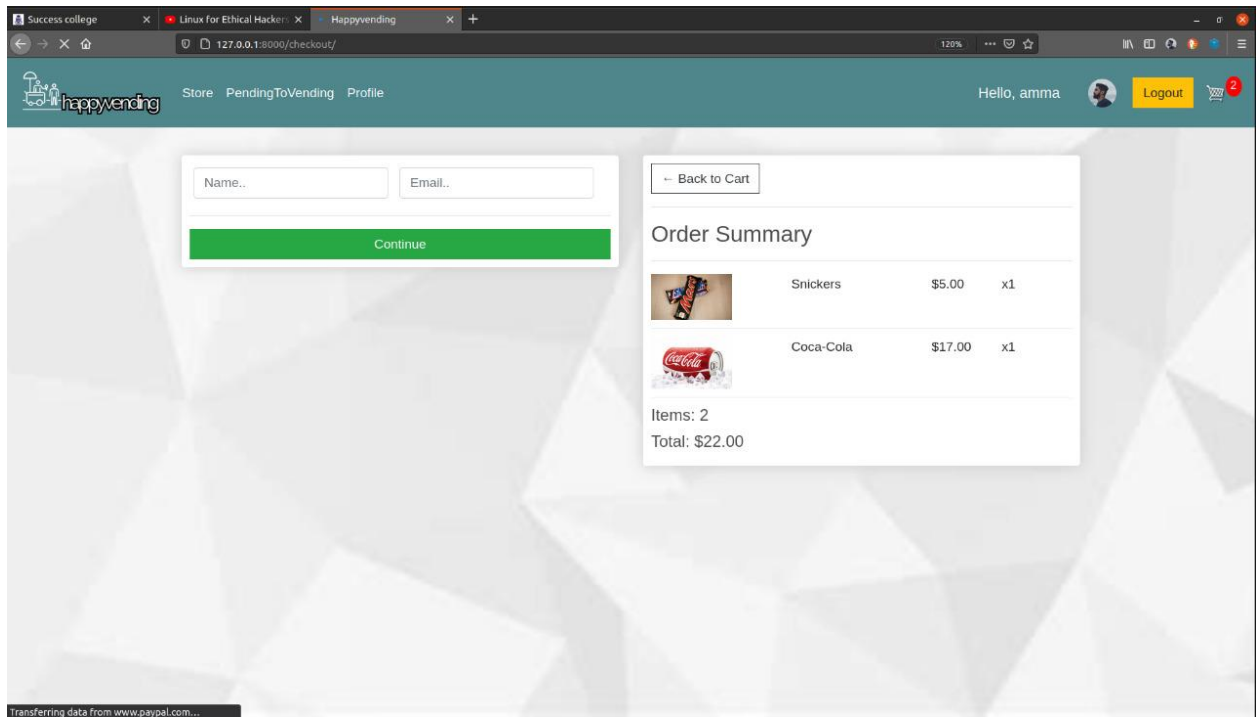




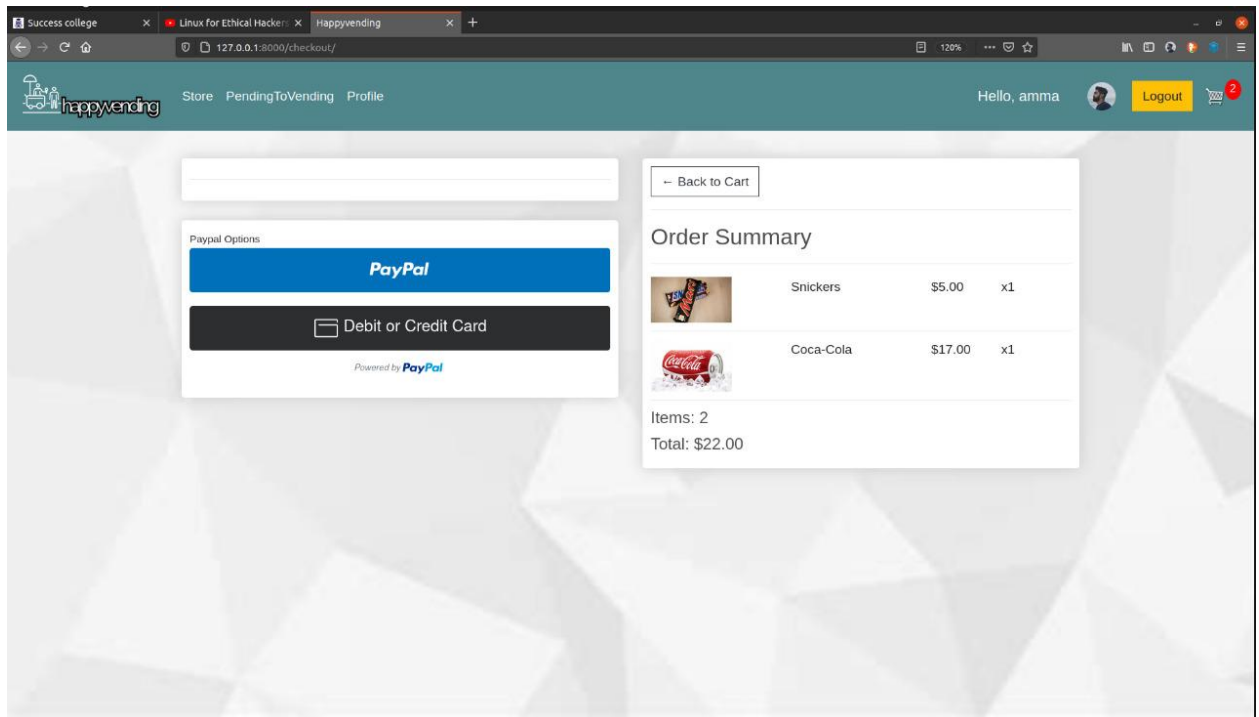
4. After Signing in you will have a page similar to the home page but you can see your account and you can make changes to your account when you click on your profile picture. And also you will have an Profile Button on your webpage where you can go and change your account settings.



5. After you added the items your Cart the cart looks like this and you can edit the items that you are going to add here also. If you click check out it will take to a page where your can pay for the Items. You can use continue shopping to go back and add more items to the cart.

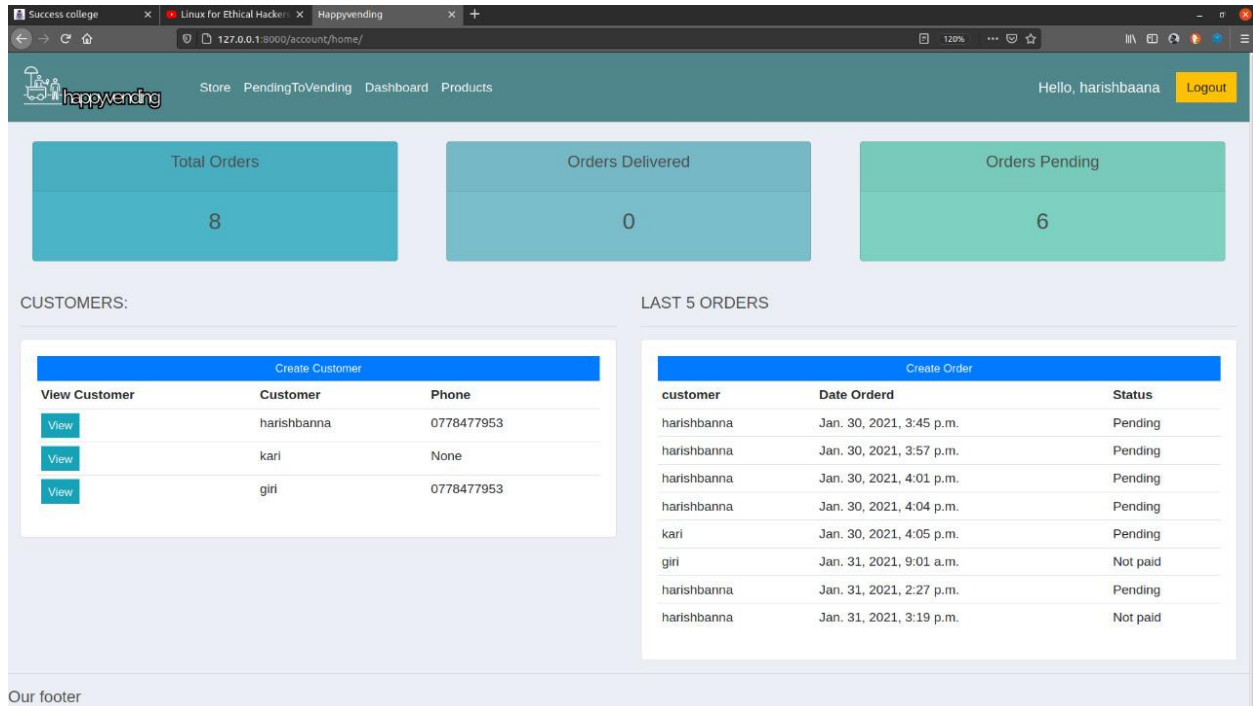


6. When you go to the checkout page you can see that it will ask for a name and an email. It is just for the invoice so you can use it for refunds and other proceeds.



7. After giving the Email and the name You can choose the way to pay (Paypal / Debit Card /Credit card).After choosing the payment method you will be redirected to a dialog box which is going popup and you can give your details there and pay for the items and you will receive the items.

## If you are an Admin



The screenshot shows the HappyVending Admin Dashboard. At the top, there's a navigation bar with links to Store, PendingToVending, Dashboard, and Products. The user is logged in as 'harishbaana' and can click 'Logout'. Below the navigation bar, there are three summary cards: 'Total Orders' (8), 'Orders Delivered' (0), and 'Orders Pending' (6). The main content area is divided into two sections: 'CUSTOMERS:' and 'LAST 5 ORDERS'.

**CUSTOMERS:**

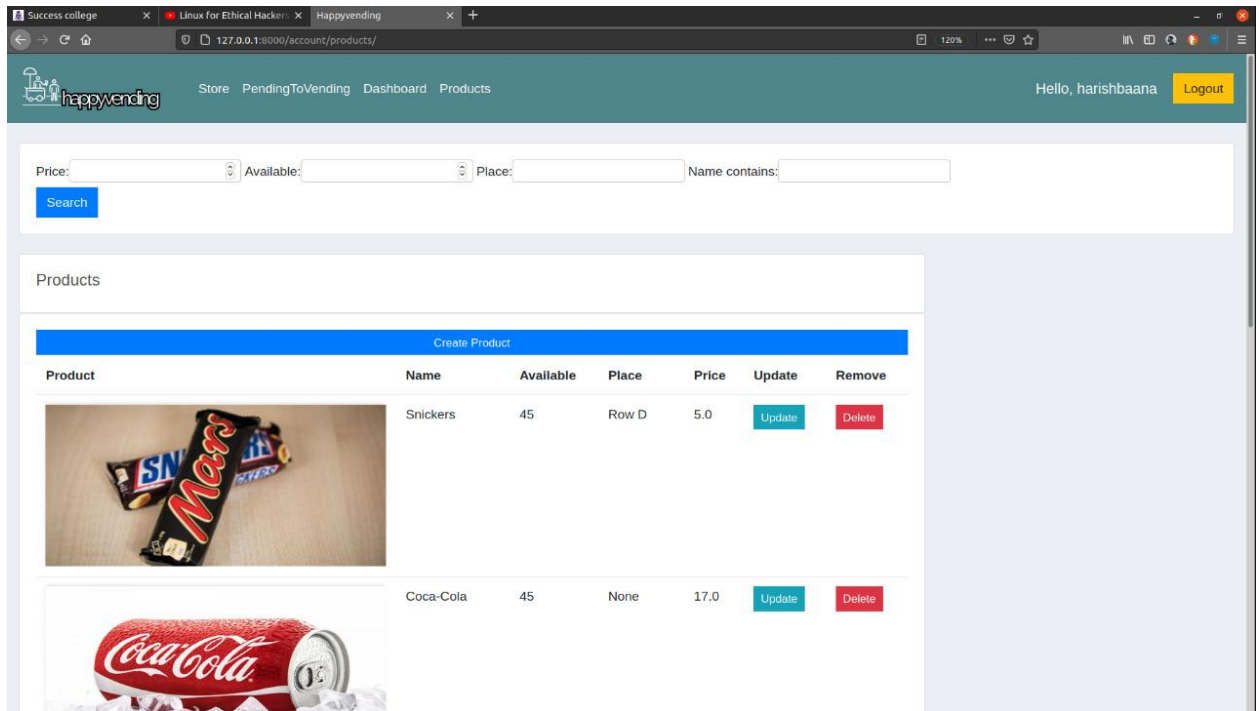
Create Customer		
View Customer	Customer	Phone
<a href="#">View</a>	harishbanna	0778477953
<a href="#">View</a>	kari	None
<a href="#">View</a>	giri	0778477953

**LAST 5 ORDERS**

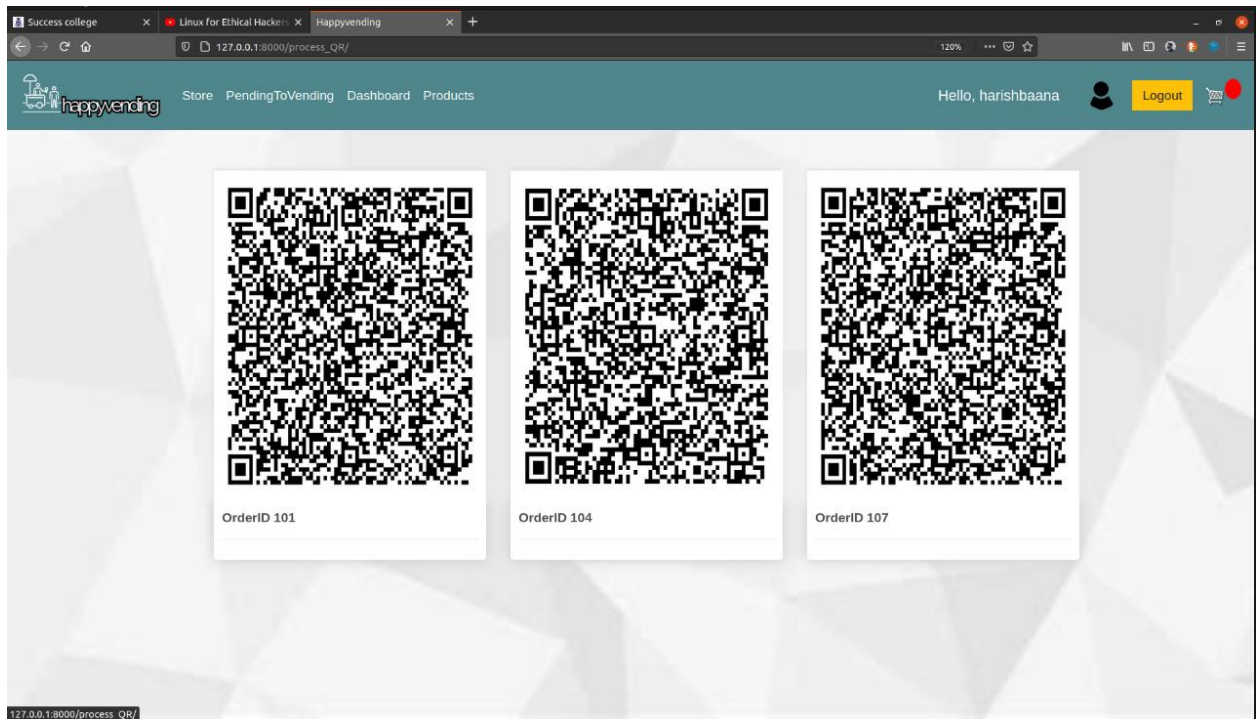
Create Order		
customer	Date Orderd	Status
harishbanna	Jan. 30, 2021, 3:45 p.m.	Pending
harishbanna	Jan. 30, 2021, 3:57 p.m.	Pending
harishbanna	Jan. 30, 2021, 4:01 p.m.	Pending
harishbanna	Jan. 30, 2021, 4:04 p.m.	Pending
kari	Jan. 30, 2021, 4:05 p.m.	Pending
giri	Jan. 31, 2021, 9:01 a.m.	Not paid
harishbanna	Jan. 31, 2021, 2:27 p.m.	Pending
harishbanna	Jan. 31, 2021, 3:19 p.m.	Not paid

Our footer

1. If you Login with the admin Credentials you can see all the transactions that have happened with the vending machine over the time. And you can check who has bought the items and their characteristics according to their accounts. And also you can check the pending transactions.



2. If you Login as an Admin You can also change the number of products in the vending machine.If you see any miscalculations. And also you can search for items according to their places and the prices and also the names.



3. The other page you can check are the QR codes of the customers who are going to buy the items.

---

# Device Walk Through

## User walkthrough

- Web application Item Selection and Payment (Web application Walkthrough)
- User shows the QR code to the vending machine
- Vending machine will Check the QR code for validation.
- Vending machine dispenses the item ordered.

## Worker walkthrough


**“worker is the one who fills up the vending machine if Items are over”**

- Worker has the access as the Admin for the web application.
- Worker can update the database while Updating the system

# The Maintenance of the Device

- Make sure to clean the inner parts of the vending machine regularly
- Make sure that PIR and Camera sensors glasses are clean



- 
- Oil the motor springs when needed
  - Do not put the machine where it has too much humidity or place that can easily flood with water