STOCK BROKERAGE MANAGEMENT

ADDIS TRADES INCORPORATED

A stock market or equity market is a platform where the public can invest on listed companies in the form of buying stock (or shares) which represents ownership claim to businesses. Investments in the stock market can be made only with a stockbroker or online trading platform.

Serving as an investment expert, this application we have created helps clients to invest on the stock market at the best way possible and maximize their investments as an investor. This application helps eliminating the middlemen and the laborious process of trading. This application simplifies trading to help people who have very less to no knowledge of how the stock market functions.

In this project, the main aim was to reproduce the trade market with original companies, rates real time updates . This project is a means to reciprocate the trading of stocks that people all around the world engage themselves in. The project displays a lifelike model based on US stock market (NASDAQ) and the fluctuating values of stocks in the volatile stock market. It allows students to catch a glimpse of how the stock market works and ignite interest in them to engage themselves in the stock market.

BACKEND DETAILS:

In this project there were totally three SQL tables and one CSV file used. All information about the customer and his/her trading ventures are stored in SQL.

SQL TABLES:

1. CUSTOMER
2. STOCK
3. WATCHLIST

CUSTOMER TABLE:

This table stores all the details about every customer. This table stores almost all information statically and does not change with actions (exception: cash column). This table is used during all the actions to make sure all information about the person is correctly retrieved. This table is connected throughout the graphical user interface and is responsible to present the right screen to the right person. Anyone that signs up have their information added to this table.

Note: The password stored in the customer table is auto encrypted using python to make it extra secure.

TABLE CONTENTS:

DESC CUSTOMER;

FIELD	TYPE	NULL	KEY	DEFAULT
USERNAME	VARCHAR(30)	NO	PRI	NULL
FULL_NAME	VARCHAR(50)	YES		NULL
PASSWORD	CHAR(32)	YES		NULL
IPIN	CHAR(4)	YES		NULL
BANKNO	VARCHAR(15)	YES		NULL
EMAIL	VARCHAR(100)	YES		NULL

MEMBERSHIP	VARCHAR(10)	YES		NULL
CASH	INT	YES		NULL

```
CREATE TABLE STOCK
(USERNAME VARCHAR(50) NOT NULL,
FULL_NAME VARCHAR(50),PASSWORD CHAR(32),
IPIN CHAR(4),BANKNO VARCHAR(15),
EMAIL VARCHAR(100),MEMBERSHIP VARCHAR(10),
CASH INT);
```

STOCK TABLE:

The stock table acts as a record for all trading activities that the customer does. The stock table is dynamically changed when a person buys or sells stocks. This also helps in calculating the profit or loss incurred by the customer and is also comes handy when the customer wants to see his history.

TABLE CONTENTS:

```
DESC STOCK;
```

FIELD	TYPE	NULL	KEY	DEFAULT
USERNAME	VARCHAR(50)	NO		NULL
COMPANY	VARCHAR(10)	NO		NULL
QUANTITY	INT	YES		NULL
BUY_RATE	INT	YES		NULL
DATE	DATE	YES		NULL
OPERATION	VARCHAR(10)	YES		NULL

CREATE TABLE STOCK

(USERNAME VARCHAR(50) NOT NULL,

COMPANY VARCHAR(10) NOT NULL,

QUANTITY INT,BUY_RATE INT,DATE DATE,

OPERATION VARCHAR(10));

WATCHLIST TABLE:

The watchlist table is used when a customer chooses a stock to watchlist. This table is updated dynamically when a customer adds or removes a particular stock from his/her watchlist.

TABLE CONTENTS:

DESC WATCHLIST;

FIELD	TYPE	NULL	KEY	DEFAULT
USERNAME	VARCHAR(50)	YES		NULL
WATCHLIST	VARCHAR(30)	YES		NULL

CREATE TABLE STOCK

(USERNAME VARCHAR(50),WATCHLIST VARCHAR(30));

BACKEND CONNECTIONS:

Numerous functions were defined to retrieve information from the backend to display and utilize in the front end.

CODES:

```
import mysql.connector as mysql
db=mysql.connect(
   host='localhost',
   user='root',
   password='Jordanstockwolf99',
   database='ipproject')
def add_data(a,b,c,d,e,f):
   h = 'no pro'
   cursor1 = db.cursor()
   cursor1.execute('''use ipproject;''')
   cursor1.execute('''insert into customer
values(%s,%s,%s,%s,%s,%s,%s,0);''',(a,b,c,d,e,f,h,))
   db.commit()
#add_data adds the data and information given by the customer
to the customer table during sign up
def get_data(a):


   cursor2 = db.cursor()
   cursor2.execute('''use ipproject;''')
   cursor2.execute('''select * from customer where username =
%s;''',(a,))
   record = cursor2.fetchall()
   db.commit()
```

```
    return record
```

#get_data helps in retrieving all the datas of the customer for easy navigation through the application

```
def all_data():


    cursor3 = db.cursor()
    cursor3.execute('''use ipproject;''')
    cursor3.execute('''select * from customer;''')
    record = cursor3.fetchall()
    db.commit()
    return record
```

#all_data help in checking the username and password of the person attempting to login to make sure there is no frauds

```
def history():
    cursor3 = db.cursor()
    cursor3.execute('''use ipproject;''')
    cursor3.execute('''select * from stock;''')
    record = cursor3.fetchall()
    db.commit()
    return record
```

#history allows the admin to access to all the transactions that are taking place through the application.

```
def add_stock(a,b,c,d):
```

```
    cursor1 = db.cursor()
    cursor1.execute('''use ipproject;''')
    cursor1.execute('''insert into stock
values(%s,%s,%s,%s,%s,'buy');''',(a,b,c,d,date.today(),))
    db.commit()
#add_stock helps in adding all the transactions were the
customer buys any stock


def add_watchlist(a,b):
    cursor2 = db.cursor()
    cursor2.execute('''use ipproject;''')
    cursor2.execute('''insert into watchlist values(%s,%s);''',(a,b,))
    db.commit()
#add_watchlist adds the selected stock to the watchlist


def remove_watchlist(a,b):
    cursor2 = db.cursor()
    cursor2.execute('''use ipproject;''')
    cursor2.execute('''delete from watchlist where username = %s
and watchlist = %s;''',(a,b,))
    db.commit()
#remove_watchlist helps in removing the selected stocks out of
the watchlist


def get_watchlist(a):
    cursor3 = db.cursor()
```

```
    cursor3.execute('''use ipproject;''')
    cursor3.execute('''select watchlist from watchlist where
username =%s''',(a,))
    record = cursor3.fetchall()
    db.commit()
    return record
#get_watchlist accesses the watchlist username wise and helps
the customer to revisit and check the watch listed stock


def my_stocks(a):
    cursor4 = db.cursor()
    cursor4.execute('''use ipproject;''')
    cursor4.execute('''select distinct(company) from stock where
username = %s;''',(a,))
    record = cursor4.fetchall()
    db.commit()
    return record
#my_stocks gets all the company one has shares on


def my_stocks_quantity(a,b):
    cursor4 = db.cursor()
    cursor4.execute('''use ipproject;''')
    cursor4.execute('''select sum(quantity) from stock where
username = %s and company = %s group by company,operation
;''',(a,b,))
    record = cursor4.fetchall()
```

```
    db.commit()
    return record
#my_stocks_quantity gets the number of stocks bought and sold and total stocks owned from each company


def my_history(a):
    cursor4 = db.cursor()
    cursor4.execute('''use ipproject;''')
    cursor4.execute('''select date , company,quantity,buy_rate,operation from stock where username = %s;''',(a,))
    record = cursor4.fetchall()
    db.commit()
    return record
#my_history helps the customer to access all their previous transactions.


def remove_stock(a,b,c,d):
    cursor4 = db.cursor()
    cursor4.execute('''use ipproject;''')
    cursor4.execute('''insert into stock values(%s,%s,%s,%s,%s,'sell');''',(a,b,c,d,date.today(),))
    db.commit()
#remove_stock helps in adding the selling transaction and also in the calculation of the quantity


def sell_value(a):
```

```
    cursor4 = db.cursor()
    cursor4.execute('''use ipproject;''')
    cursor4.execute(''' select company,sum(quantity*buy_rate) as cost from stock where username=%s and operation='sell' group by company;;''',(a,))
    return cursor4.fetchall()
#sell_value gets the cost at which a stock was sold to calculate the net profit or loss


def become_pro(a):
    cursor5 = db.cursor()
    cursor5.execute('''use ipproject;''')
    cursor5.execute('''update customer set membership = 'pro' where username = %s;''',(a,))
    db.commit()
#become_pro upgrades the membership of the customer from normal to pro


def add_money(a,b):
    cursor6 = db.cursor()
    cursor6.execute('''use ipproject;''')
    cursor6.execute('''update customer set cash = (cash + %s) where username = %s;''',(b,a,))
    db.commit()
#add_money helps in adding money to the customer's wallet


def show_balance(a):
```

```
    cursor6 = db.cursor()
    cursor6.execute('''use ipproject;''')
    cursor6.execute('''select cash from customer where username = %s;''',(a,))
    return cursor6.fetchall()[0][0]
#show_balance gets the balance cash the customer has in his/her wallet


def take_money(a,b):
    cursor6 = db.cursor()
    cursor6.execute('''use ipproject;''')
    cursor6.execute('''update customer set cash = (cash - %s) where username = %s;''',(b,a,))
    db.commit()
#take_money removes money from the wallet when a person buys stocks


def change_pass(a,b):
    cursor6 = db.cursor()
    cursor6.execute('''use ipproject;''')
    cursor6.execute('''update customer set password = %s where username = %s;''',(b,a,))
    db.commit()
#change_pass changes the password of the customer when he or she changes it


def total_spend(a):
```

```
    cursor6 = db.cursor()
    cursor6.execute('''use ipproject;''')
    cursor6.execute('''select company,sum(quantity*buy_rate) as
cost from stock where username = %s and operation = 'buy' group
by company;''',(a,))
    return cursor6.fetchall()
```

#total_spend gets the total money spent by the customer on stocks.

CORPORATE CSV:

The corporate csv stores information about companies and their stock symbol. This CSV is used to for retrieving data about the selected company and vice versa.

Corporate CSV:

Company	Symbol	Description
Apple Inc	AAPL	Apple Inc. is an American multinational technology company headquartered in Cupertino, California, that designs, develops and sells consumer electronics, computer software, and online services Apple was founded by Steve Jobs, Steve Wozniak, and Ronald Wayne in April 1976 to develop and sell Wozniak's Apple I personal computer

Company	Symbol	Description
Abbott Laboratories Common Stock	ABT	Abbott Laboratories is an American multinational medical devices and health care company with headquarters in Abbott Park. Illinois. United States. The company was founded by Chicago physician Wallace Calvin Abbott in 1888 to formulate known drugs; today. it sells medical devices. diagnostics. branded generic medicines and nutritional products.
Adobe Inc Common Stock	ADBE	Adobe Inc. is an American multinational computer software company. Incorporated in Delaware and headquartered in San Jose. California. it has historically focused upon the creation of multimedia and creativity software products. with a more recent foray into digital marketing software.Adobe was founded in December 1982 by John Warnock and Charles Geschke
adidas AG	ADDYY	Adidas is a German multinational corporation. founded and headquartered in Herzogenaurach. Germany. that designs and manufactures shoes. clothing and accessories. It is the largest sportswear manufacturer in Europe. and the second largest in the world. after Nike. It is the holding company for the Adidas Group. which consists of the Reebok

Company	Symbol	Description
		sportswear company. 8.33% of the German football club Bayern MГjnchen. and Runtastic. an Austrian fitness technology company. Adidas' revenue for 2018 was listed at в,¬21.915 billion.
Amazon.com **Inc.**	AMZN	is an American multinational technology company based in Seattle. Washington. which focuses on e-commerce. cloud computing. digital streaming. and artificial intelligence. It is considered one of the Big Five companies in the U.S. information technology industry. along with Google. Apple. Microsoft. and FacebookAmazon was founded by Jeff Bezos in Bellevue, Washington, on July 5, 1994.
The Boeing Company	BA	is an American multinational corporation that designs. manufactures. and sells airplanes. rotorcraft. rockets. satellites. telecommunications equipment. and missilesBoeing was founded by William Boeing in Seattle, Washington on July 15, 1916. worldwide. The company also provides leasing and product support services. Boeing is among the largest

Company	Symbol	Description
		global aerospace manufacturers;
Bank of America Corporation Common Stock	BAC	is an American multinational investment bank and financial services holding company headquartered in Charlotte. North Carolina. with central hubs in New York City. London. Hong Kong. Dallas. and Toronto. Founded in San Francisco. Bank of America was formed through NationsBank's acquisition of BankAmerica in 1998. It is the second largest banking institution in the United States.
Walt Disney Company Common Stock	DIS	is an American diversified multinational mass media and entertainment conglomerate headquartered at the Walt Disney Studios complex in Burbank. California.Disney was originally founded on October 16, 1923, by brothers Walt and Roy O. Disney as the Disney Brothers Cartoon Studio

Company	Symbol	Description
Ford Motor Company	F	Ford Motor Company. commonly known as Ford. is an American multinational automaker that has its main headquarters in Dearborn. Michigan. a suburb of Detroit. It was founded by Henry Ford and incorporated on June 16. 1903. The company sells automobiles and commercial vehicles under the Ford brand. and most luxury cars under the Lincoln brand.
Facebook Inc	FB	is an American social media conglomerate corporation based in Menlo Park. California. It was founded by Mark Zuckerberg. along with his fellow roommates and students at Harvard College. who were Eduardo Saverin. Andrew McCollum. Dustin Moskovitz and Chris Hughes. originally as TheFacebook.comвЂ”today's Facebook. a popular global social networking website. Facebook is one of the world's most valuable companies.
Alphabet Inc.	GOOG	Alphabet Inc. is an American multinational conglomerate headquartered in Mountain View. California. It was created through a restructuring of Google on October 2. 2015.[2] and became the parent company of Google and several former Google subsidiaries. The two co-founders of Google remained as controlling shareholders. board

Company	Symbol	Description
		members. and employees at Alphabet. Alphabet is the world's fourth-largest technology company by revenue and one of the world's most valuable companies.
Home Depot Inc. Common Stock	HD	The Home Depot. Inc.. commonly known as Home Depot. is the largest home improvement retailer in the United States. supplying tools. construction products. and services. The company is headquartered in incorporated Cobb County. Georgia. with an Atlanta mailing address
HDFC Bank Limited Common Stock	HDB	HDFC Bank Limited is an Indian banking and financial services company headquartered in Mumbai. Maharashtra. It has a base of 104.154 permanent employees as of 30 June 2019. HDFC Bank is IndiaвЂ™s largest private sector bank by assets.[9] It is the largest bank in India by market capitalisation as of March 2020.
International Buisness Machines Corporations	IBM	International Business Machines Corporation (IBM) is an American multinational technology and consulting company headquartered in Armonk. New York. with more

Company	Symbol	Description
		than 350.000 employees serving clients in 170 countries.
Johnson & Johnson Common Stock	JNJ	Johnson & Johnson is an American multinational corporation founded in 1886 that develops medical devices. pharmaceutical. and consumer packaged goods. Its common stock is a component of the Dow Jones Industrial Average and the company is ranked No. 37 on the 2018 Fortune 500 list of the largest United States corporations by total revenue. Johnson & Johnson is one of the world's most valuable companies.
Coca-Cola Company Common Stock	KO	The Coca-Cola Company is an American multinational beverage corporation headquartered in Atlanta. Georgia. The Coca-Cola Company has interests in the manufacturing. retailing. and marketing of nonalcoholic beverage concentrates and syrups. The company produces Coca-Cola. invented in 1886 by pharmacist John Stith Pemberton.

Company	Symbol	Description
L Oreal Paris ADR	LRLCY	L'OrΓ©al S.A. is a French personal care company headquartered in Clichy. Hauts-de-Seine with a registered office in Paris.It is the world's largest cosmetics company and has developed activities in the field concentrating on hair colour. skin care. sun protection. make-up. perfume. and hair care.
Mastercard Incorporated Common Stock	MA	Mastercard Incorporated (stylized as MasterCard from 1979 to 2016 and mastercard since 2016) is an American multinational financial services corporation headquartered in the Mastercard International Global Headquarters in Purchase. New York. United States.[3] The Global Operations Headquarters is located in O'Fallon. Missouri. United States. a municipality of St. Charles County. Missouri. Throughout the world. its principal business is to process payments between the banks of merchants and the card-issuing banks or credit unions of the purchasers who use the "Mastercard" brand debit. credit and prepaid cards to make purchases.

Company	Symbol	Description
Mcdonalds Corporation	MCD	McDonald's Corporation is an American fast food company. founded in 1940 as a restaurant operated by Richard and Maurice McDonald. in San Bernardino. California. United States.McDonald's is the world's largest restaurant chain by revenue, serving over 69 million customers daily in over 100 countries across 37,855 outlets as of 2018
Microsoft Corporation	MSFT	Microsoft Corporation is an American multinational technology company with headquarters in Redmond. Washington. It develops. manufactures. licenses. supports. and sells computer software. consumer electronics. personal computers. and related services. Its best known software products are the Microsoft Windows line of operating systems. the Microsoft Office suite. and the Internet Explorer and Edge web browsers. Its flagship hardware products are the Xbox video game consoles and the Microsoft Surface lineup of touchscreen personal computers. Microsoft ranked No. 21 in the 2020 Fortune 500 rankings of the largest United States corporations by total revenue;[3] it was the world's largest software maker by revenue as of 2016

Company	Symbol	Description
Morgan Stanley	MS	Morgan Stanley is an American multinational investment bank and financial services company headquartered at 1585 Broadway in the Morgan Stanley Building. Midtown Manhattan. New York City. With offices in more than 42 countries and more than 60.000 employees. the firm's clients include corporations. governments. institutions. and individuals. The original Morgan Stanley. formed by J.P. Morgan & Co. partners Henry Sturgis Morgan (grandson of J.P. Morgan). Harold Stanley. and others. came into existence on September 16. 1935.
Netflix.Inc.	NFLX	Netflix. Inc. is an American over-the-top content platform and production company headquartered in Los Gatos. California. Netflix was founded in 1997 by Reed Hastings and Marc Randolph in Scotts Valley. California. The company's primary business is a subscription-based streaming service offering online streaming from a library of films and television series. including those produced in-house.

Company	Symbol	Description
Nike.Inc.	NKE	Nike. Inc. is an American multinational corporation that is engaged in the design. development. manufacturing. and worldwide marketing and sales of footwear. apparel. equipment. accessories. and services. The company is headquartered near Beaverton. Oregon. in the Portland metropolitan area. It is the world's largest supplier of athletic shoes and apparel and a major manufacturer of sports equipment. with revenue in excess of US$37.4 billion in its fiscal year 2020
Nestle	NSRGY	NestlГ© S.A. is a Swiss multinational food and drink processing conglomerate corporation headquartered in Vevey. Vaud. Switzerland. It is the largest food company in the world. measured by revenue and other metrics. since 2014. NestlГ©'s products include baby food. medical food. bottled water. breakfast cereals. coffee and tea. confectionery. dairy products. ice cream. frozen food. pet foods. and snacks.

Company	Symbol	Description
NVIDIA Corporation	NVDA	Nvidia Corporation is an American multinational technology company incorporated in Delaware and based in Santa Clara. California.[2] It designs graphics processing units (GPUs) for the gaming and professional markets. as well as system on a chip units (SoCs) for the mobile computing and automotive market. Nvidia expanded its presence in the gaming industry with its handheld Shield Portable. Shield Tablet. and Shield Android TV and its cloud gaming service GeForce Now.
Oracle Corporation Common Stock	ORCL	Oracle Corporation is an American multinational computer technology corporation headquartered in Redwood Shores. California. The company sells database software and technology. cloud engineered systems. and enterprise software productsвЂ”particularly its own brands of database management systems. In 2019. Oracle was the second-largest software company by revenue and market capitalization.

Company	Symbol	Description
PepsiCo Inc.	PEP	PepsiCo. Inc. is an American multinational food. snack and beverage corporation headquartered in Harrison. New York. in the hamlet of Purchase. PepsiCo has interests in the manufacturing. marketing. and distribution of grain-based snack foods. beverages. and other products. PepsiCo was formed in 1965 with the merger of the Pepsi-Cola Company and Frito-Lay. Inc.
Pintrest.Inc.	PINS	Pinterest is an American image sharing and social media service designed to enable saving and discovery of information (specifically "ideas") on the World Wide Web using images and. on a smaller scale. animated GIFs and videos. in the form of pinboards.The site was created by Ben Silbermann. Paul Sciarra. and Evan Sharp and had over 400 million monthly active users as of August 2020.It is operated by Pinterest. Inc.. based in San Francisco.
PayPal Holdings Inc Common Stock	PYPL	PayPal Holdings. Inc. is an American company operating a worldwide online payments system that supports online money transfers and serves as an electronic alternative to traditional paper methods like checks and money orders. The company operates as a payment processor for online vendors.

Company	Symbol	Description
		auction sites. and many other commercial users. for which it charges a fee in exchange for benefits such as one-click transactions and password memory. Established in 1998.
QUALCOMM Incorporated	QCOM	Qualcomm is an American public multinational corporation headquartered in San Diego. California. and incorporated in Delaware.[1] It creates intellectual property. semiconductors. software. and services related to wireless technology. It owns patents critical to the CDMA2000. TD-SCDMA and WCDMA mobile communications standards. Qualcomm was established in 1985 by Irwin M. Jacobs and six other co-founders.
Starbucks Corporation	SBUX	Starbucks Corporation is an American multinational chain of coffeehouses and roastery reserves headquartered in Seattle. Washington. As the world's largest coffeehouse chain. Starbucks is seen to be the main representation of the United States' second wave of coffee culture. As of early 2020. the company operates over 30.000 locations worldwide in more than 70 countries. Headquartered in the Starbucks Center. the company was founded in 1971 by Jerry

Company	Symbol	Description
		Baldwin. Zev Siegl. and Gordon Bowker at Seattle's Pike Place Market.
Sony Corporation Common Stock	SNE	Sony Corporation is a Japanese multinational conglomerate corporation headquartered in KEŃnan. Minato. Tokyo. The company operates as one of the world's largest manufacturers of consumer and professional electronic products. the largest video game console company. the second largest video game publisher. the second largest record company. as well as one of the most comprehensive media companies.
AT&T Inc.	T	AT&T Inc. is an American multinational conglomerate holding company. Delaware-registered but headquartered at Whitacre Tower in Downtown Dallas. Texas.It is the world's largest telecommunications company. the largest provider of mobile telephone services. and the largest provider of fixed telephone services in the United States through AT&T Communications.

Company	Symbol	Description
Tencent Holdings Ltd	TCEHY	Tencent Holdings Ltd. also known as Tencent. is a Chinese multinational technology conglomerate holding company. Founded in 1998. its subsidiaries globally market various Internet-related services and products. including in entertainment. artificial intelligence. and other technology.Its twin-skyscraper headquarters. Tencent Seafront Towers (also known as Tencent Binhai Mansion) are based in the Nanshan District of Shenzhen.
Target Corporation	TGT	Target Corporation is an American retail corporation. It is the 8th-largest retailer in the United States. and is a component of the S&P 500 Index. Target established itself as the discount division of the Dayton's Company of Minneapolis. Minnesota.
Tesla.Inc.	TSLA	Tesla. Inc. (formerly Tesla Motors. Inc.) is an American electric vehicle and clean energy company based in Palo Alto. California. Tesla's current products include electric cars (the Model S. Model 3. Model X. and Model Y). battery energy storage from home to grid scale (the Powerwall. Powerpack. and Megapack). solar panels and solar roof tiles. and related products and services. Founded in July 2003 by engineers Martin

Company	Symbol	Description
		Eberhard and Marc Tarpenning as Tesla Motors. the companyвЂ™s name is a tribute to inventor and electrical engineer Nikola Tesla. current CEO is Elon Musk.
Uber Technologies.Inc.	UBER	Uber Technologies. Inc.. commonly known as Uber. is an American company that offers vehicles for hire. food delivery (Uber Eats). package delivery. couriers. freight transportation. and. through a partnership with Lime. electric bicycle and motorized scooter rental. The company is based in San Francisco and has operations in over 900 metropolitan areas worldwide. It is one of the largest providers in the gig economy and is also a pioneer in the development of self-driving cars.
Visa Inc.	V	Visa Inc. (also known as Visa. stylized as VISA) is an American multinational financial services corporation headquartered in Foster City. California. United States. It facilitates electronic funds transfers throughout the world. most commonly through Visa-branded credit cards. debit cards and prepaid cards. Visa is the world's second-largest card payment organization.

Company	Symbol	Description
Verizon Communications Inc Common Stock	VZ	Verizon Communications Inc. is an American multinational telecommunications conglomerate and a corporate component of the Dow Jones Industrial Average. The company is based at 1095 Avenue of the Americas in Midtown Manhattan. New York City. but is incorporated in Delaware.
Walmart Inc Common Stock	WMT	Walmart Inc. is an American multinational retail corporation that operates a chain of hypermarkets. discount department stores. and grocery stores. headquartered in Bentonville. Arkansas.[10] The company was founded by Sam Walton in 1962 and incorporated on October 31. 1969. It also owns and operates Sam's Club retail warehouses.
Best Buy Co.. Inc.	BBY	Best Buy Co.. Inc. is an American multinational consumer electronics retailer headquartered in Richfield. Minnesota. It was originally founded by Richard M. Schulze and James Wheeler in 1966 as an audio specialty store called Sound of Music. In 1983. it was re-branded under its current name with an emphasis placed on consumer electronics. Best Buy operates internationally in Canada and Mexico. and formerly operated in China until February 2011.

Company	Symbol	Description
GameStop Corp.	GME	GameStop Corp. is an American video games, consumer electronics, and gaming merchandise retailer.[2] The company is headquartered in Grapevine (a suburb of Dallas), Texas, United States, and is the world's largest video game retailer, operating 5,509 retail stores throughout the United States, Canada, Australia, New Zealand, and Europe as of February 1, 2020. The company was founded in Dallas in 1984 as Babbage's, and took on its current name in 1999.

GUI AND SOURCE CODE :

webtry1.py : This file contains the main backbone of the entire project and integrates all the other modules into the project.

This file contains the login information for all customers.

SOURCE CODE:

```
import streamlit as st

import pandas as pd
```

```
import hashlib

import pandas_datareader as web

from PIL import Image

from datetime import date

import admin

import view

import buy

import promembership

import sqlcust

import signup

import watchlist

import myaccount

import mystock
```

```
import sell

import mail

import sqlstock

import random

corporate = pd.read_csv("C:\\Users\\Lenovo\\Desktop\\ip
project\\project\\corporate.csv",encoding='latin1')

data = sqlcust.all_data()


image=Image.open("C:\\Users\\Lenovo\\Desktop\\logo.jpeg")


def secure(x):
    enc_word=x.encode('utf32')
    xs=hashlib.md5(enc_word.strip()).hexdigest()
    return xs
```

```
def getdata(company_name):
   company_list = list(corporate['company'])
   company_index = company_list.index(company_name)
   company_symbol = corporate['symbol'][company_index]
   return
web.DataReader(company_symbol,data_source='yahoo',start='20
18-01-01',end=date.today())


st.markdown(
   """
   <style>
   .reportview-container {
      background:
url("
wAAACoCAMAAABt9SM9AAAAA1BMVEX62t2cnEggAAAAR0lEQ
VR4nO3BAQEAAACCIP+vbkhAAQAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AO8GxYgAAb0jQ/cAAAAASUVORK5CYII=")
   }


   </style>
   """,
   unsafe_allow_html=True
)


c1,c2 = st.beta_columns([3,1])
with c1:
```

```
   st.title("WELCOME TO ADDIS TRADES INCORPORATED")
with c2:
   st.image(image,use_column_width=True)

menu = ["login","sign up"]

choice = st.sidebar.selectbox("Menu",menu)

 if choice == "login":
   username=st.sidebar.text_input("USERNAME")
   info = sqlcust.get_data(username)

password=secure(st.sidebar.text_input("PASSWORD",type='pass
word'))
   q=st.sidebar.checkbox("login")
   if q and info != []:

      if username == info[0][0] and password == info[0][2]:
```

```
        st.sidebar.success("logged in as {}".format(username))
        if info[0][0] in ('Adharsh18','Sid03'):
            PAGES = { "BUY": buy,"VIEW":
view,"SELL":sell,"WATCHLIST":watchlist,"YOUR
STOCKS":mystock,"BECOME A PRO
MEMBER":promembership,"ADMIN":admin,'MY
ACCOUNT':myaccount}
            st.sidebar.title('Navigation')
            selection = st.sidebar.radio("Go to", list(PAGES.keys()))
            page = PAGES[selection]
            page.cont(info)
        else:
            PAGES = { "BUY": buy,"VIEW":
view,"SELL":sell,"WATCHLIST":watchlist,"YOUR
STOCKS":mystock,"BECOME A PRO
MEMBER":promembership,'MY ACCOUNT':myaccount}
            st.sidebar.title('Navigation')
            selection = st.sidebar.radio("Go to", list(PAGES.keys()))
            page = PAGES[selection]
            page.cont(info)
```

```
        else:
            st.sidebar.warning("invalid password")
            if st.sidebar.checkbox('FORGOT PASSWORD'):
                username1=st.text_input("USERNAME ")
                info1 = sqlcust.get_data(username1)
                name1=st.text_input("YOUR NAME")
                ip1=st.text_input("YOUR IPIN")
                b1=st.text_input("YOUR BANK NO",max_chars=15)
                if st.checkbox('continue'):


                    if name1 == info1[0][1] and ip1 == info1[0][3] and b1 ==
info[0][4]:
                        otp = random.randint(100000,999999)
                        st.success("check your registered email for your new
password")
                        mail.password(info1,otp)
                        otp=str(otp)
                        sqlstock.change_pass(info1[0][0],secure(otp))
                    else:
                        st.warning("the given information is inadequate")
                        st.write("please write an email to ")
    elif info == [] and q:
            st.sidebar.warning('invalid username')


elif choice == "sign up":
    signup.sign_up(data)
```

RUNNING THE CODE:

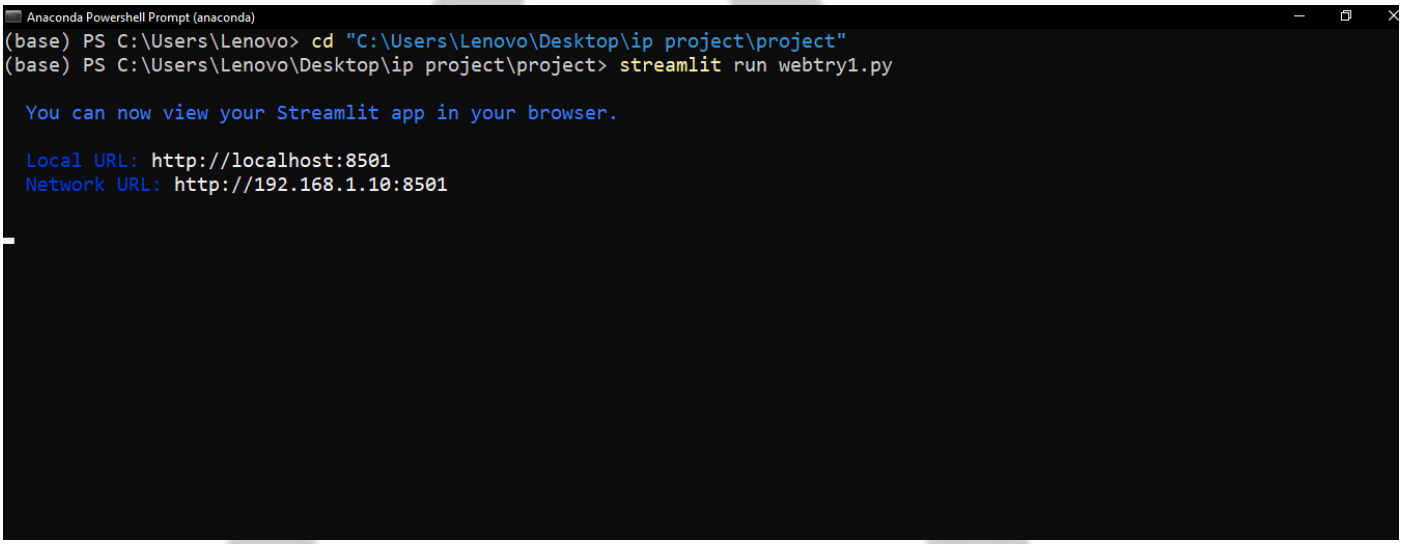
The code is executed using anaconda powershell command prompt.

RUN STATEMENT:

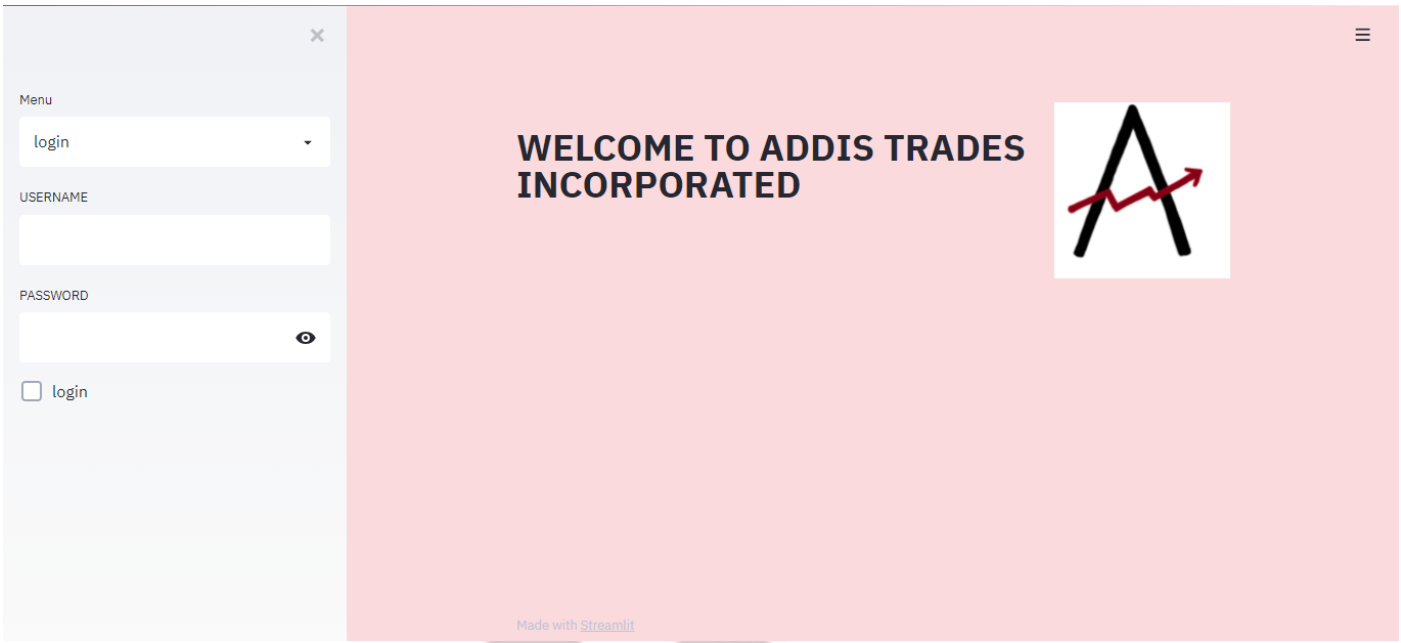
cd “**file location path**”

streamlit run webtry1.py

The powershell opens the application in the default browser.

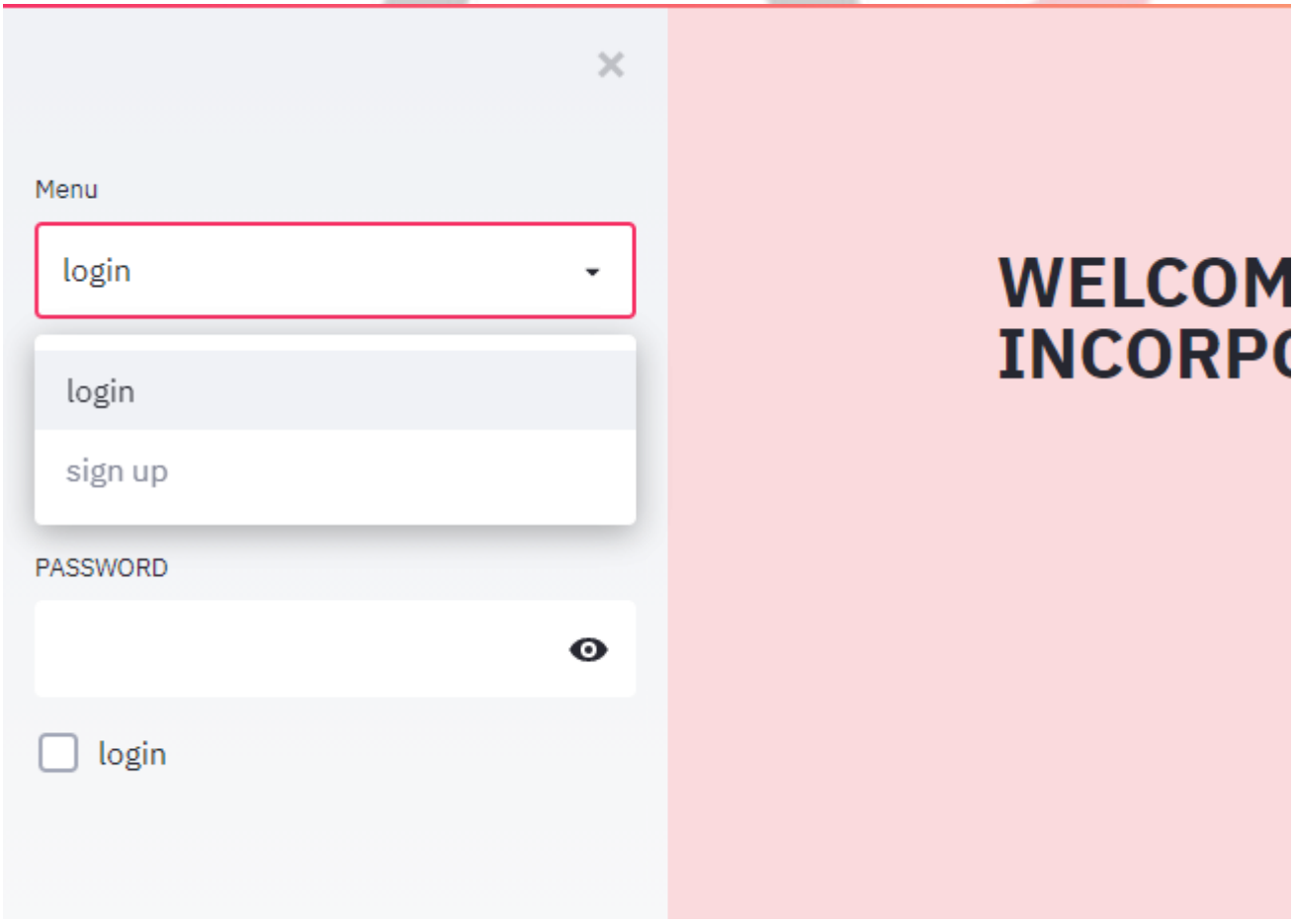


HOME SCREEN:



The above the opening screen of the project.

The beginning has a menu with two options sign up and login.



SIGN UP:

CODE:

```
import streamlit as st
import passwordprotect
import sqlcust
import mail
def sign_up(data):
   st.markdown(
   """
   <style>
   .reportview-container {
      background:
url("
wAAACoCAMAAABt9SM9AAAAA1BMVEX62t2cnEggAAAAR0lEQ
VR4nO3BAQEAAACCIP+vbkhAAQAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AO8GxYgAAb0jQ/cAAAAASUVORK5CYII=")
   }

   </style>
   """,
   unsafe_allow_html=True
)

   st.subheader("welcome to ADDIS TRADES INC. \n THE SAFEST
STOCK BROKERAGE SYSTEM \n CREATE ACCOUNT")
   col1, col2 = st.beta_columns(2)
   with col1:
```

```
        new_name = st.text_input('full name')
        new_user=st.text_input('username')

new_pass=passwordprotect.secure(st.text_input('password',type
='password'))
        bank_details=(st.text_input('15 digit bank account
number',max_chars=15))
        new_pin = (st.text_input('IPIN',type='password'))
        new_mail =  st.text_input('email')
    my_expan = st.beta_expander('TERMS AND CONDITIONS')
    with my_expan:
        st.write('1.    Stock market and trading is soley done on my
choice and all information given is true to my knowledge')
        st.write('2.    I accept that Addis Trades Incorporated is just
the mediator of all the purchases of stock and are in no way
pressurising me.')
        st.write('3.    The members of Addis Trades Incorporated are
in no way manipulating me and all profit and loss are all because
of me.')
        st.write('INTELLECTUAL PROPERTY RIGHTS')
        st.write("1.      The application offers financial and
investment information created by Addis Trades Inc. as well as
other information collected from third-party applications. In so
far as the materials and information created by Addis Trades Inc.
is concerned, such materials and information are created using
Addis Trades Inc.’s proprietary tools and methods and belong to
Addis Trades Inc. and are thus protected by intellectual property
laws of United States and other jurisdictions \n 2. The references
to trademarks, trade names, business names and other
proprietary information of third party applications do not
```

amount to an endorsement or recommendation by Addis Trades Inc.. All materials, information and content that may be referenced on the Application and belonging to third parties constitute the intellectual property of such third party and Addis Trades Inc. claims no ownership rights in respect thereof. Addis Trades Inc. is not responsible for the content of or any damage that may result from the User's access to or reliance on third-party applications. If the User links to third-party applications, he/she does so at his/her own risk.\n3. By using this Application, the User is granted a limited, non-exclusive, non-transferable and revocable right to use the content and materials on the Application in connection with his/her personal and non-commercial use of the Application. The Users shall not alter, copy, reproduce, transmit, distribute, or create derivative works of such materials or information without express written authorization from Addis Trades Inc. or the third party as the case may be.\n4. The Users acknowledges that his/her use of the content on this Application is for personal and non-commercial use only and any unauthorized use of the materials and information may violate copyright, trademark, and/or other laws.\n5. Any permitted copies of the content and materials on the Application or portions thereof must retain all copyright notices and other notices thereon.\n6. Nothing on the Application shall be construed as conferring any license in respect of the contents and information thereon except as otherwise provided.\n7. Addis Trades Inc. may revoke any rights granted to the Users with respect to use of the Application at any time.\n8. By posting, uploading, storing, or transmitting any content on the Application, the User hereby grants to Addis Trades Inc. a perpetual, worldwide, non-exclusive, royalty-free, assignable right and license to use, modify, copy, display, perform, create derivative works from, distribute, have distributed, transmit and assign such content in any form, in all media now known or hereinafter created, anywhere in the

world.\n9. Addis Trades Inc. does not have the ability to control the nature of the content generated by other Users and offered through the Application. Users are solely responsible for their interactions with other Users of the Application and for all content posted by him/her. It is expressly made clear that Addis Trades Inc. is not liable for any damage or harm resulting from any posts by or interactions between Users inter-se. Users grant to Addis Trades Inc. the right and license to publish, exhibit, use and transmit all content posted by them on the Application for its own purposes or to third parties in connection with the provision of Services.")

st.write("THE AGREEMENT ")

st.write(" 1 These Terms and Conditions form part of the agreement between you, the client ('You', 'Your(s) or 'yourself'), and Addis Trades Inc Limited ('Addis Trades Inc', 'we', 'us', 'ourselves' or 'our(s)'). These govern the services offered by us our relationship with you and all transactions that you enter into with us (or any Authorised Third Party using your name, account number and/or password).")

st.write("2 We are authorised and regulated in the United States by the Financial Conduct Authority (FCA), whose address is 12 Endeavour Square, New York E20 1JN. Our FCA registration number is 679941. For certain services we may be regulated by other professional or governmental bodies. If such is the case these separate terms are set out in their relevant sections (Supplemental Terms).")

st.write("3 All the services we offer under this Agreement are regulated by the FCA and are covered by the FCA Rules and regulations.")

st.write("4 These Terms and Conditions together with the Risk Disclosure Notice, your Application Form, the Order Execution Policy, the Conflict of Interest Policy and any supplemental terms and conditions or policies issued by us, are known as the 'Agreement'. Before you invest you should read these documents and ensure that you understand them.")

st.write("5 You should read these terms in their entirety. If there is any part of these terms that you do not understand you should contact us immediately. Unless we agree, in writing, to amend any part of this Agreement it will form the basis of all contracts that you enter into with us. This Agreement and all subsequent amendments that you agree to are legally binding and enforceable.")

st.write("6 The meanings of certain financial and legal wordings are set out in the 'Glossary' at the end of this document.")

st.write("7 We act as an execution-only broker and will provide all stockbroking and investment services. We will also hold and administer your money and Assets as custodian. We may delegate certain obligations under this Agreement to any associated company third parties.")

st.write("8 You may contact us via email or verbally by telephone. All such communications should be in English. We may converse with/write to, you in languages other than English but in the event of any misunderstanding or error the English version of this agreement will prevail. The English version of this Agreement is binding and takes precedence over any other translation. All communications with you are made on a best endeavours basis and, unless agreed in writing by a Director of Addis Trades Inc, do not alter this Agreement.")

st.write("9 You agree that we will be entitled to take any action as we consider necessary, in our absolute discretion, to

ensure compliance with Applicable Laws. You agree to comply with all Applicable Laws and also to abide by any local laws to which you may be subject. You are reminded that this especially applies to all forms of market abuse (e.g.:- market manipulation or insider trading) and corporate governance (e.g.:- director trading).")

st.write("10 Trading via our stockbroking platform is not suitable for everyone. A full explanation of the risks associated with using our services is set out in the Risk Disclosure Notice and you should ensure you fully understand such risks before entering into this Agreement with us.")

st.write("11 You authorise us to telephone or otherwise contact you at any time whatsoever in order to discuss your account or to communicate other services offered by us.")

st.write("12 We will not offer any advice on the suitability of your entering into this Agreement. It is entirely your personal choice as to whether you should use our services. We strongly recommend that you take professional advice before entering into this agreement.")

st.write("13 You agree that we may share commissions and charges with our Trading Partners or other third parties, and receive or pay remuneration from or to the same in respect of trades entered into by you with us. Such commissions and charges will only be paid where we are satisfied that such payments do not impair our obligation to act in your best interests and meet our regulatory obligations.")

st.write("14 You agree that where a situation arises that is not covered by this agreement then you and we will be bound by general industry norms and where possible or relevant with reference to the Terms and Conditions of our competitor companies.")

st.write("15 Nothing in this Agreement will over rule our duty or liability to you under the Financial Services and Markets Act 2000 (as amended) or the FCA Rules and if there is any conflict between this Agreement and the FCA Rules, the FCA Rules will prevail.")

st.write("16 You acknowledge that the Product Information Sheets that apply to any Asset in which you have an interest or wish to trade will be displayed online on our website. Such information is provided on a best endeavours basis and may be updated from time to time. We shall not be liable to you for any such incorrect information.")

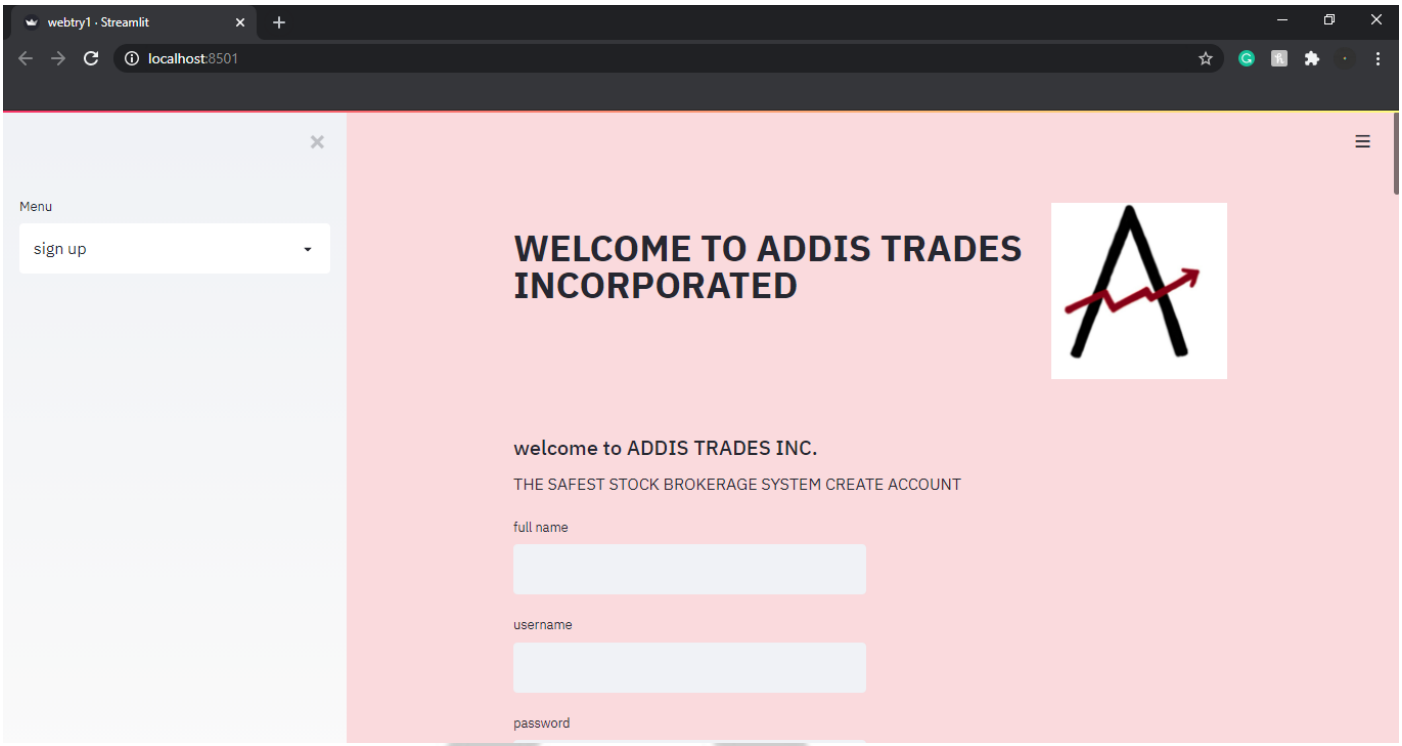
st.write("17 All calls to our telephone lines are recorded and you hereby agree to this recording. All recordings of telephone conversations are our exclusive property and may be used as evidence in any dispute.")

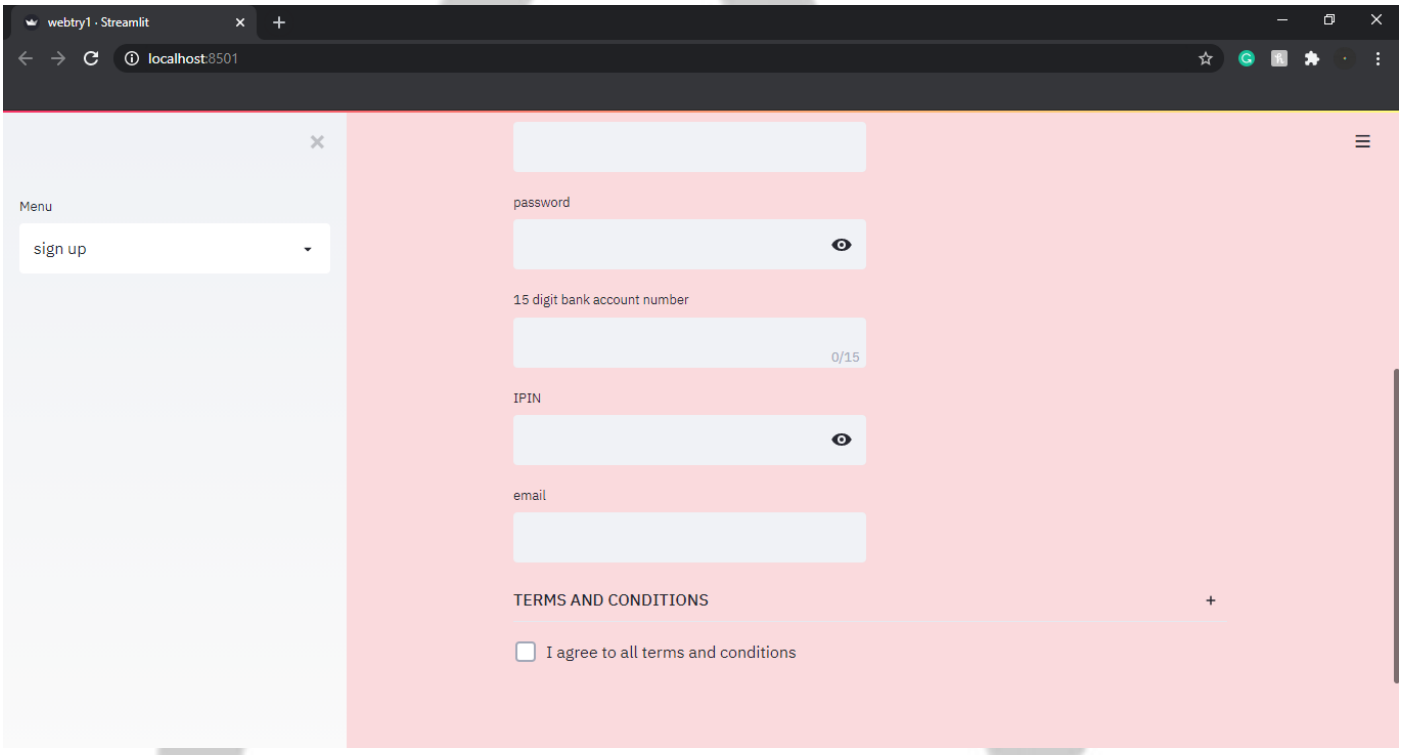
st.write("18 We may assign, in whole or in part, the rights and obligations of this Agreement to a third-party provided that any assignee agrees to abide by the Terms of this Agreement and subject to the approval of the FCA. Such assignment will come into effect 10 business days following the day you are deemed to have received notice of the assignment. If we do assign our rights and obligations under this Agreement, we will only do so to a third-party who is competent to carry out the functions and responsibilities and who will provide the same standard of service that we do.")

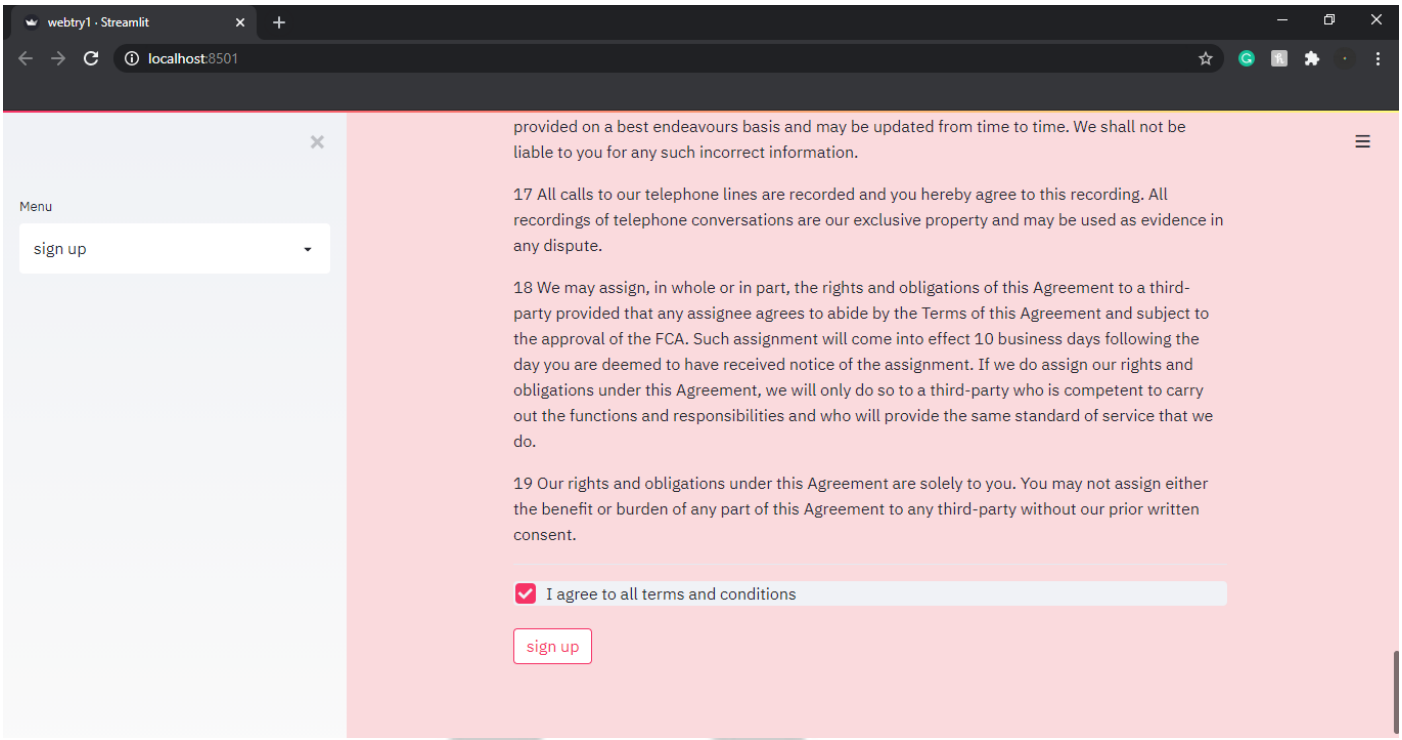
st.write("19 Our rights and obligations under this Agreement are solely to you. You may not assign either the benefit or burden of any part of this Agreement to any third-party without our prior written consent.")

```
clicked = st.checkbox('I agree to all terms and conditions')
if clicked:
    if st.button("sign up"):
        i = 0
        while i<len(data):
            if new_user == data[i][0]:
                st.info("username taken")
                break
            i = i+1
        else:

sqlcust.add_data(new_user,new_name,new_pass,new_pin,bank_
details,new_mail)
            st.success("valid account created")
            st.info("go to login")
            mail.sub(new_mail)
```

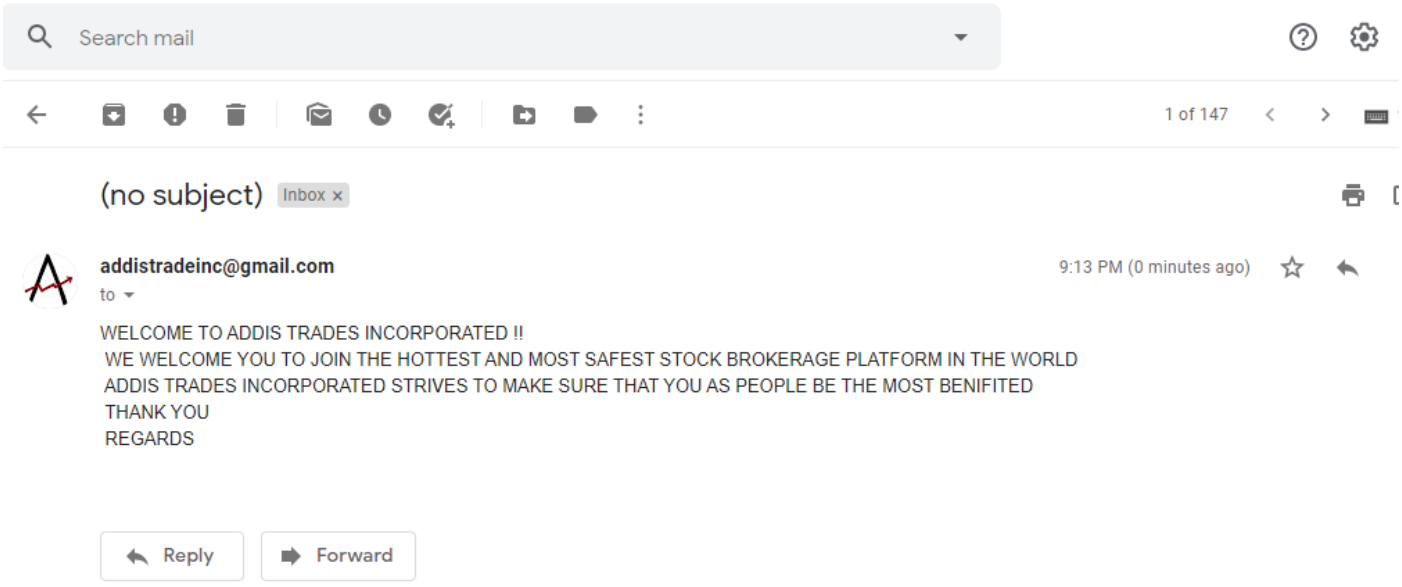
SIGN UP SCREEN:


webtry1 · Streamlit
localhost:8501
Menu
sign up
WELCOME TO ADDIS TRADES INCORPORATED
welcome to ADDIS TRADES INC.
THE SAFEST STOCK BROKERAGE SYSTEM CREATE ACCOUNT
full name
username
password


webtry1 · Streamlit
localhost:8501
Menu
sign up
password
15 digit bank account number
0/15
IPIN
email
TERMS AND CONDITIONS
I agree to all terms and conditions



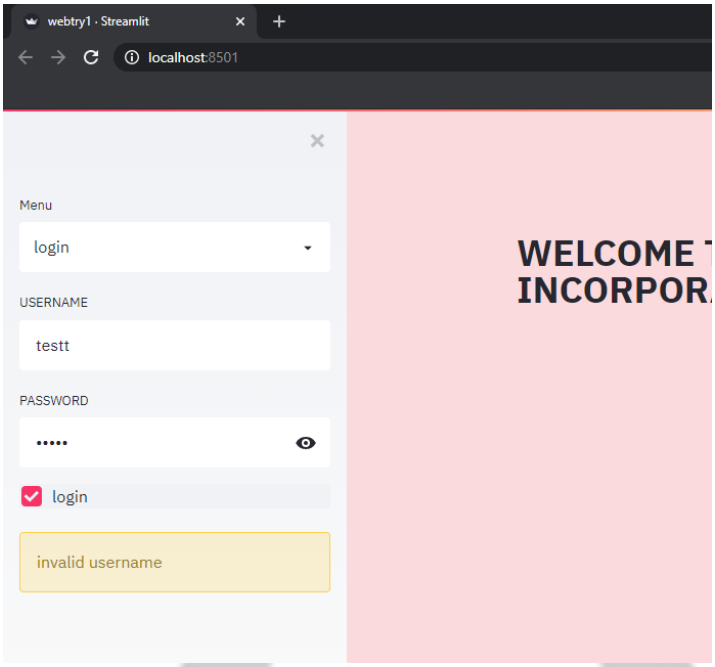
Once a person signs up a mail to sent to the registered email welcoming the customer.

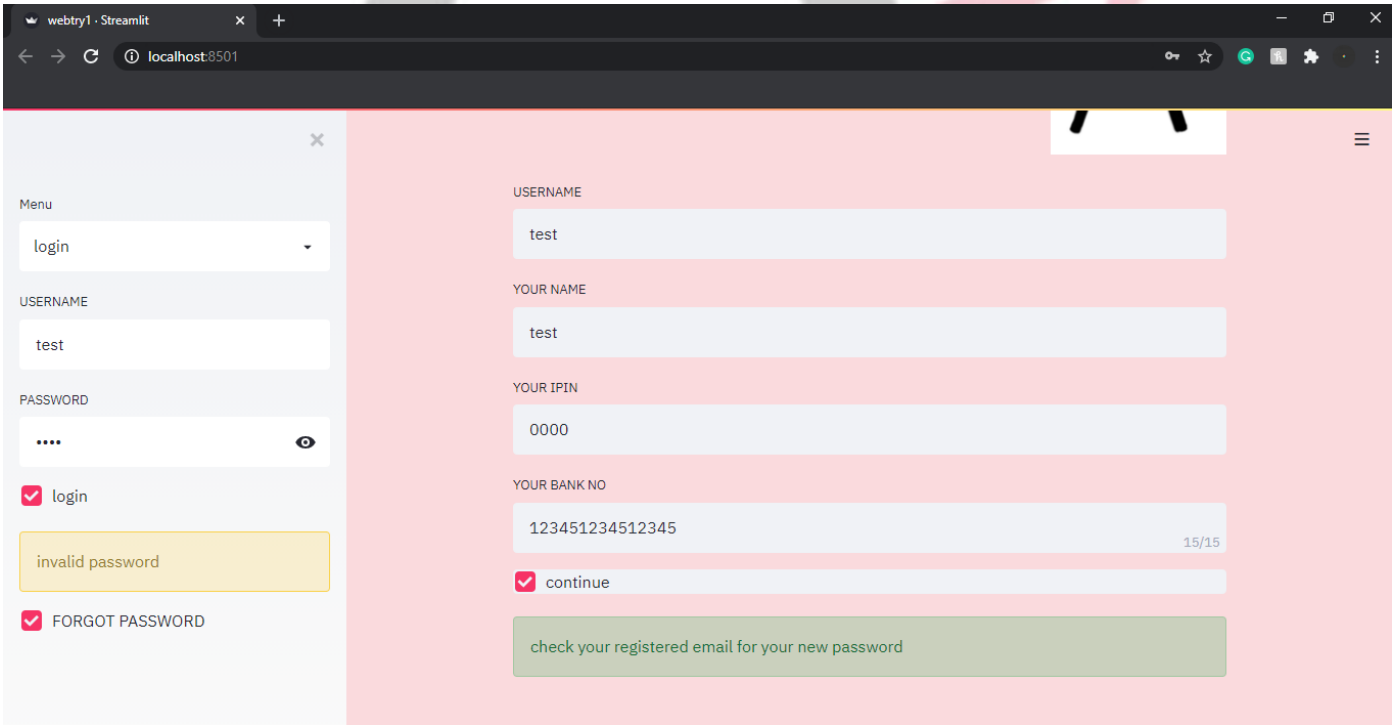


LOGIN:

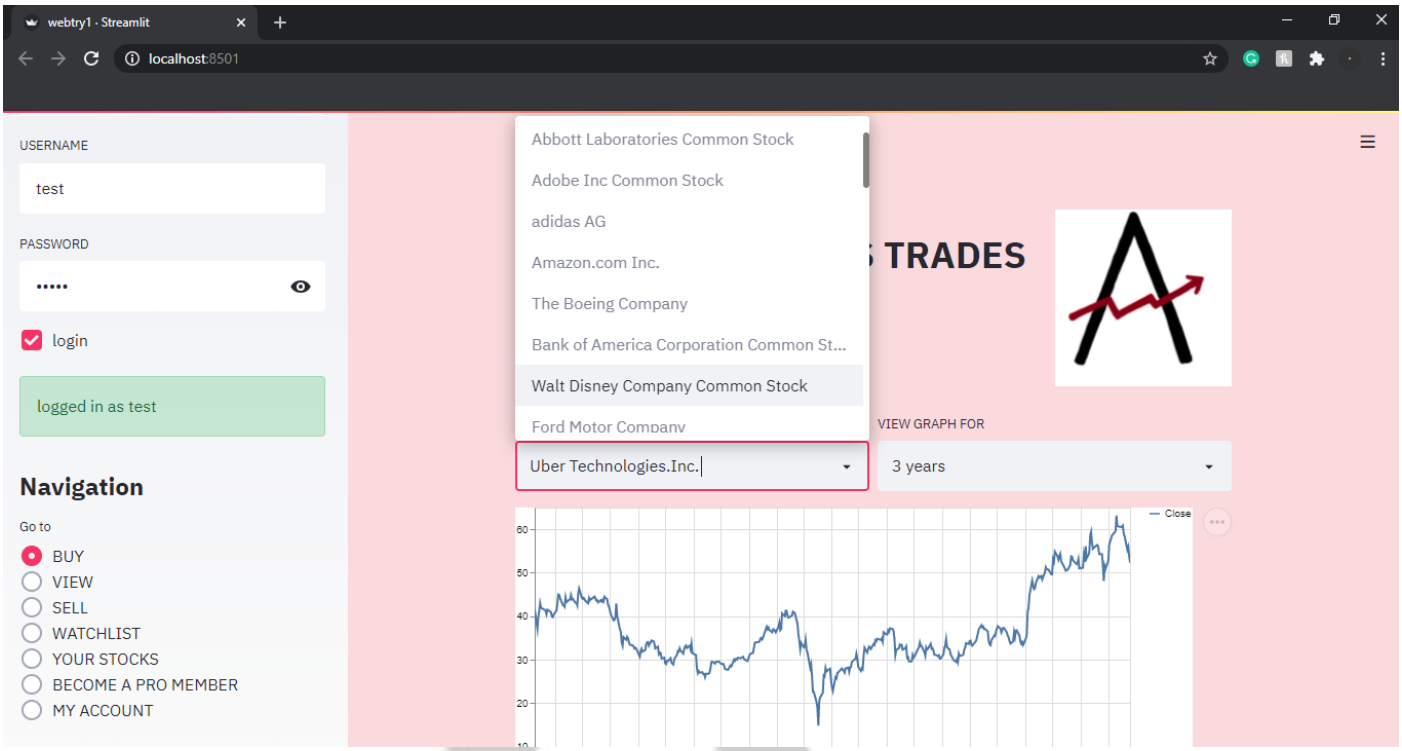
The basic and the first thing that appears when entered into the application that asks for username and password. If username is wrong it warns with a invalid username. If username is correct and password is incorrect the customer can give forget password

which generates a random 6 digit number and sends it to the registered email. The customer must login with the 6 digit number and can change password in my account.





LOGIN HOMEPAGE:



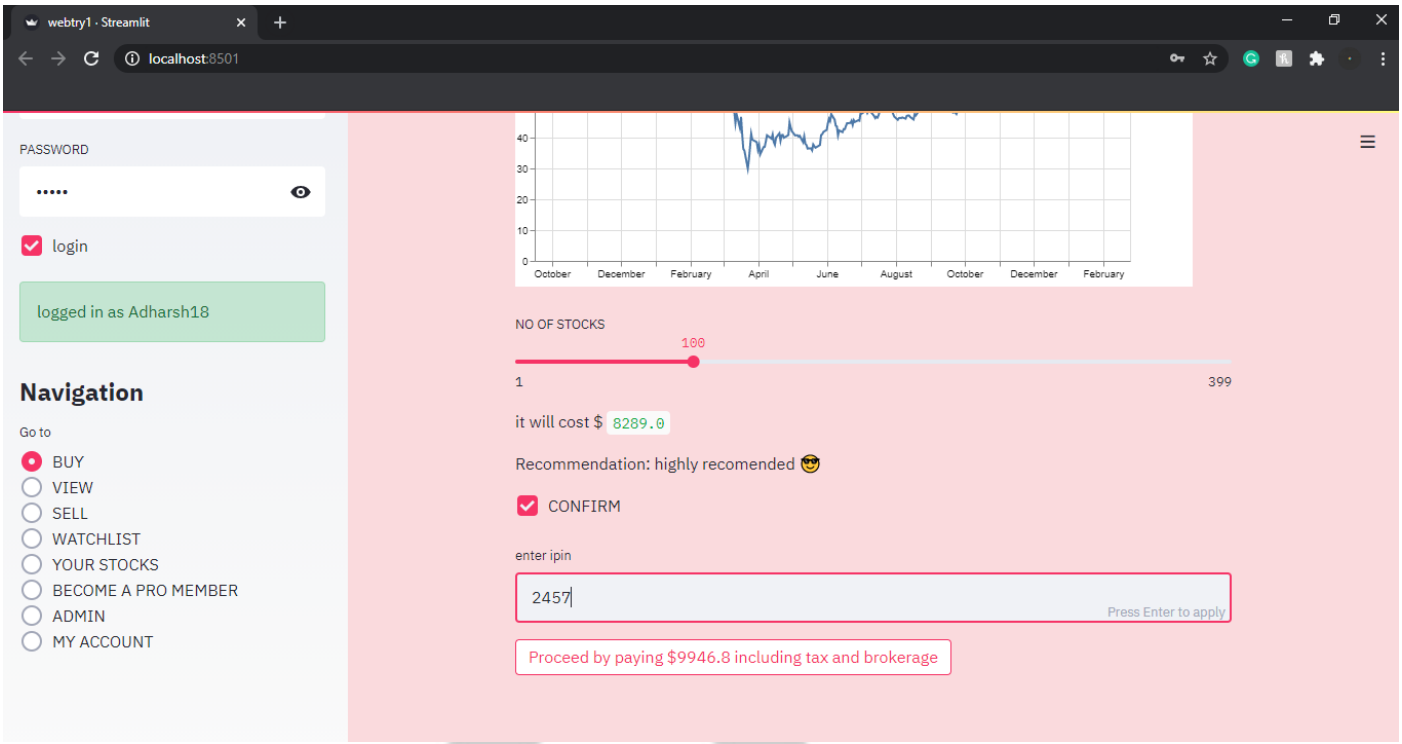
The navigation bar is useful in navigating through the whole application.

The login screen always starts with buy as the default page.

BUY:

Buy is the page where the customer can select from a choice of 42 companies and choose the number of stocks he/she wants to purchase.

The maximum amount of stocks to be purchased is dependent on the balance the customer has in the wallet. A person having a normal account should maintain a minimum balance of $1000 whereas a pro member can have a minimum balance of $500.



After choosing the number of stocks the customer must click confirm and enter the ipin and buy the stocks.

The stocks are directly added to the stock table and cash is deducted from the wallet.

CODE:

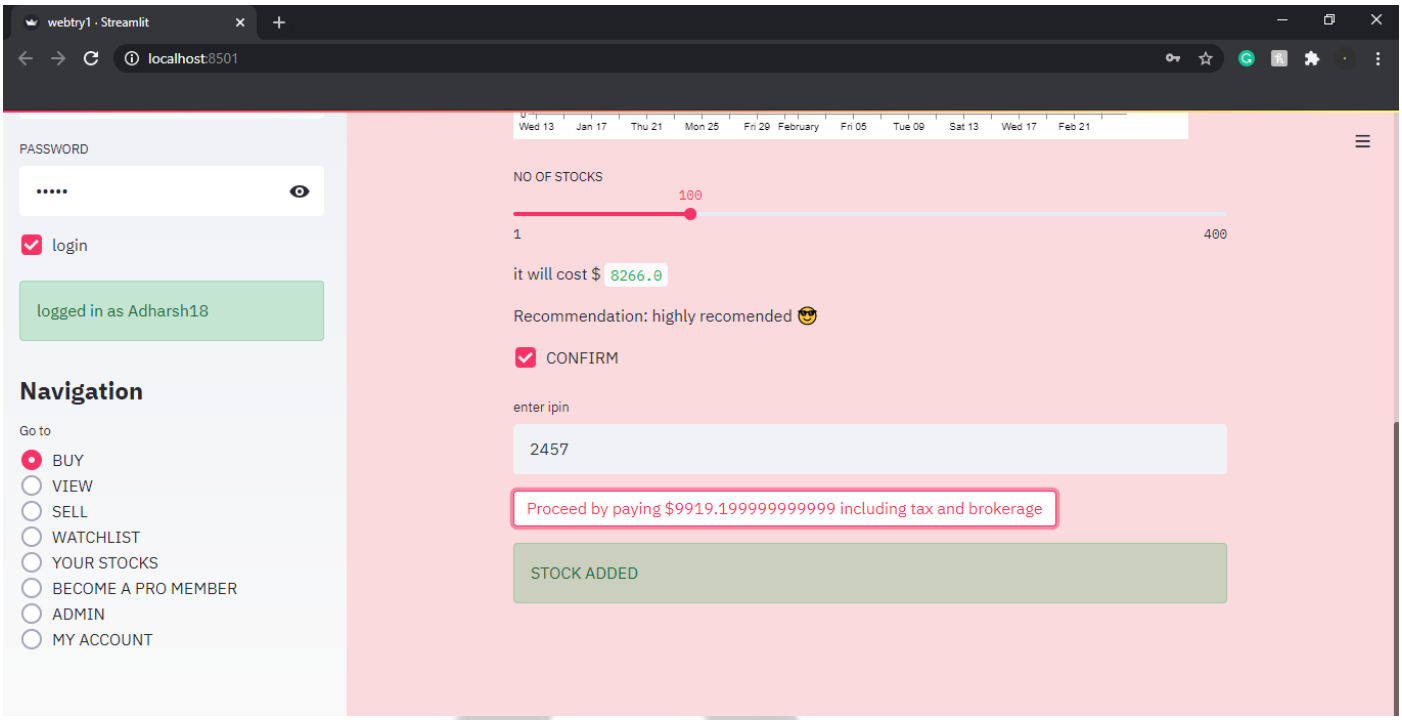
```
import streamlit as st
import pandas as pd
import pandas_datareader as web
import datetime
import sqlstock
import mail
import matplotlib.pyplot as plt
```

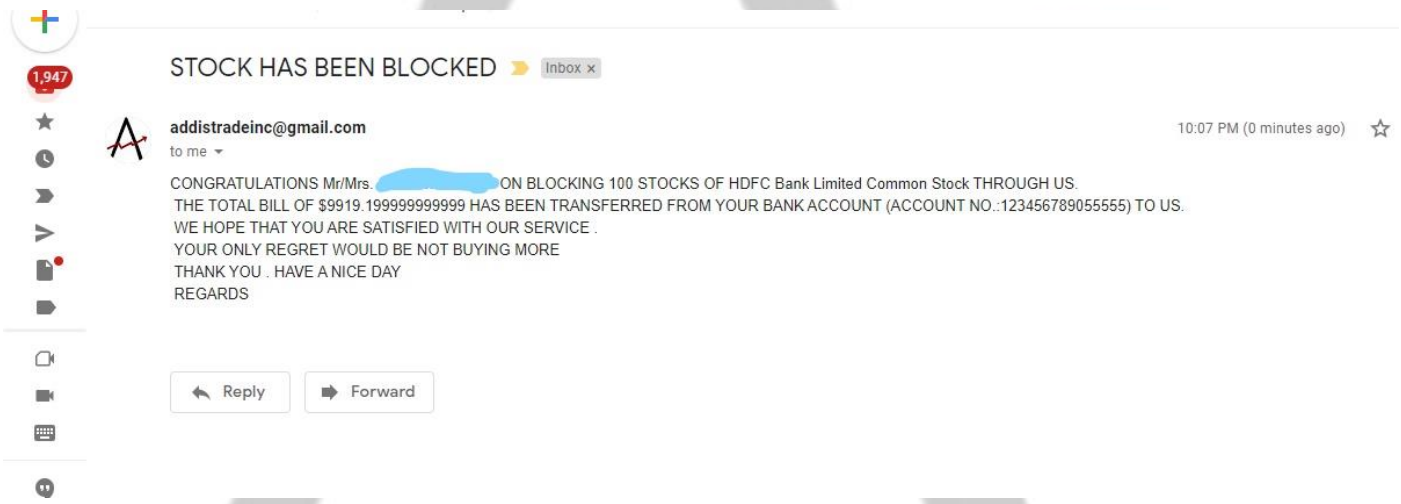
```
def read():
    return pd.read_csv("C:\\Users\\Lenovo\\Desktop\\ip project\\project\\corporate.csv",encoding='latin1')
corporate=read()


def getsymbol(company_fullname):
    company_list = list(corporate['company'])
    company_index = company_list.index(company_fullname)
    company_symbol = corporate['symbol'][company_index]
    return company_symbol


def getdata(company_name):
    company_list = list(corporate['company'])
    company_index = company_list.index(company_name)
    company_symbol = corporate['symbol'][company_index]
    return web.DataReader(company_symbol,data_source='yahoo',start='2000-01-01',end=datetime.date.today())
def cont(a):
    ipin_value = a[0][3]
    stat = sqlstock.show_balance(a[0][0])
    heat='highly recomended'
    cc1,cc2 = st.beta_columns(2)
    with cc1:
```

```
    comp=st.selectbox('COMPANY',list(corporate['company']))
  dict1 = {'one month':30,'3 months':90,'6 month':180,'1 year':365,'3 years':1000,'older':10000000}
  with cc2:
    sel = st.selectbox('VIEW GRAPH FOR',list(dict1.keys()))
  data = getdata(comp)
  mb = 1000
  if a[0][6] == 'pro':
    mb = 500
  st.line_chart(data['Close'].tail(dict1[sel]))

  l=list(data['Close'])
  cost2 = (data['Close'][-1])
  if (stat-mb)//cost2 > 0:
    n=st.slider('NO OF STOCKS',1,int((stat-mb)//cost2))
    cost = n*cost2
    st.write('it will cost $',round(cost))
    profit = n*(l[-1] - l[-180])
    if profit < 0:
      heat = 'not recommended'
    st.write('Recommendation: ',heat,':sunglasses:')
    buy_stock=st.checkbox('CONFIRM')
    if a[0][-1]=='pro':
      x=round(cost)*1.1
      y=str(x)
```

```
    else:
        x=round(cost)*1.2
        y=str(x)


    if buy_stock :
        ipin=st.text_input('enter ipin')
        c = st.button('Proceed by paying $'+ y +' including tax and
brokerage')
        if ipin == ipin_value and c and
sqlstock.show_balance(a[0][0])-x > mb:
            sqlstock.add_stock(a[0][0],getsymbol(comp),n,l[-1])
            st.success("STOCK ADDED")
            mail.buy(a,y,comp,n)
            sqlstock.take_money(a[0][0],y)
        elif c and ipin != ipin_value:
            st.warning('INCORRECT IPIN')
   else:
      st.write('TODAYS RATE FOR ',comp,' IS :$',round(l[-1],2))
      st.warning('NOT ENOUGH BALANCE YOU ONLY HAVE
$'+str(stat))
```

After purchase a green message ‘STOCK ADDED’ confirms the purchase of the share along with an email.

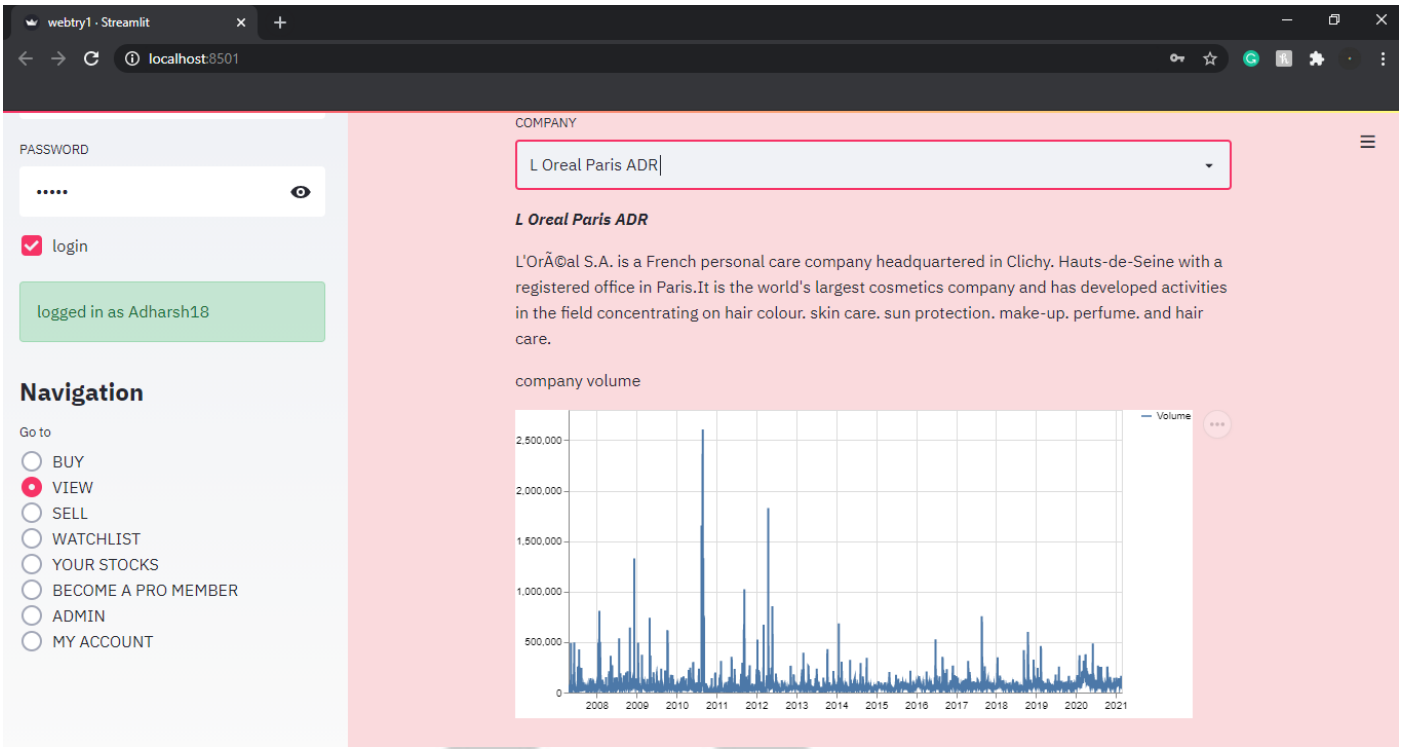


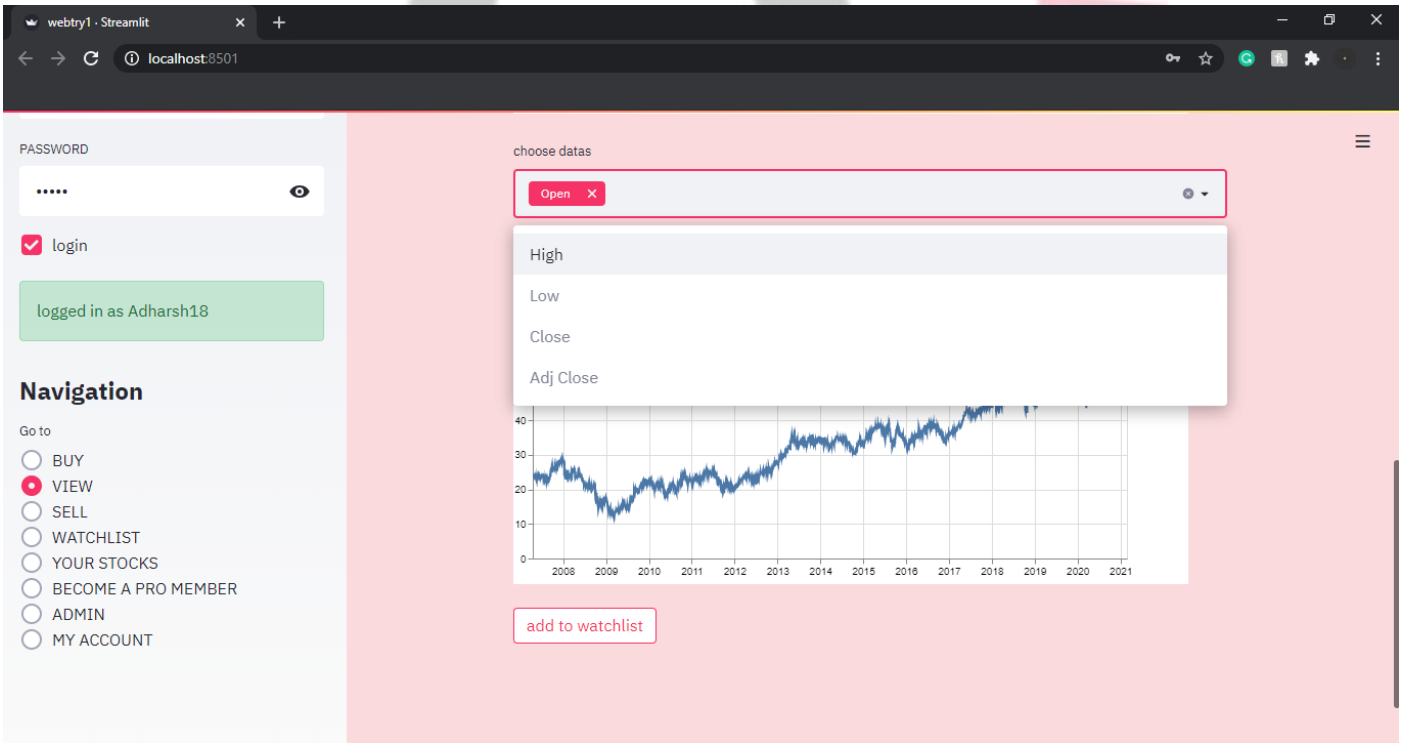


VIEW:

View is the place where the customer can select from the company list and view the information and data of the rates.

If interested in a stock one can add it to the watchlist.





One can view a description and the company volume graph by default. The other data can be chosen simultaneously to view the rate graph.

You can also add a company from your watchlist. If the particular selected company is already in your watchlist one can remove the stock from watchlist.

CODE:

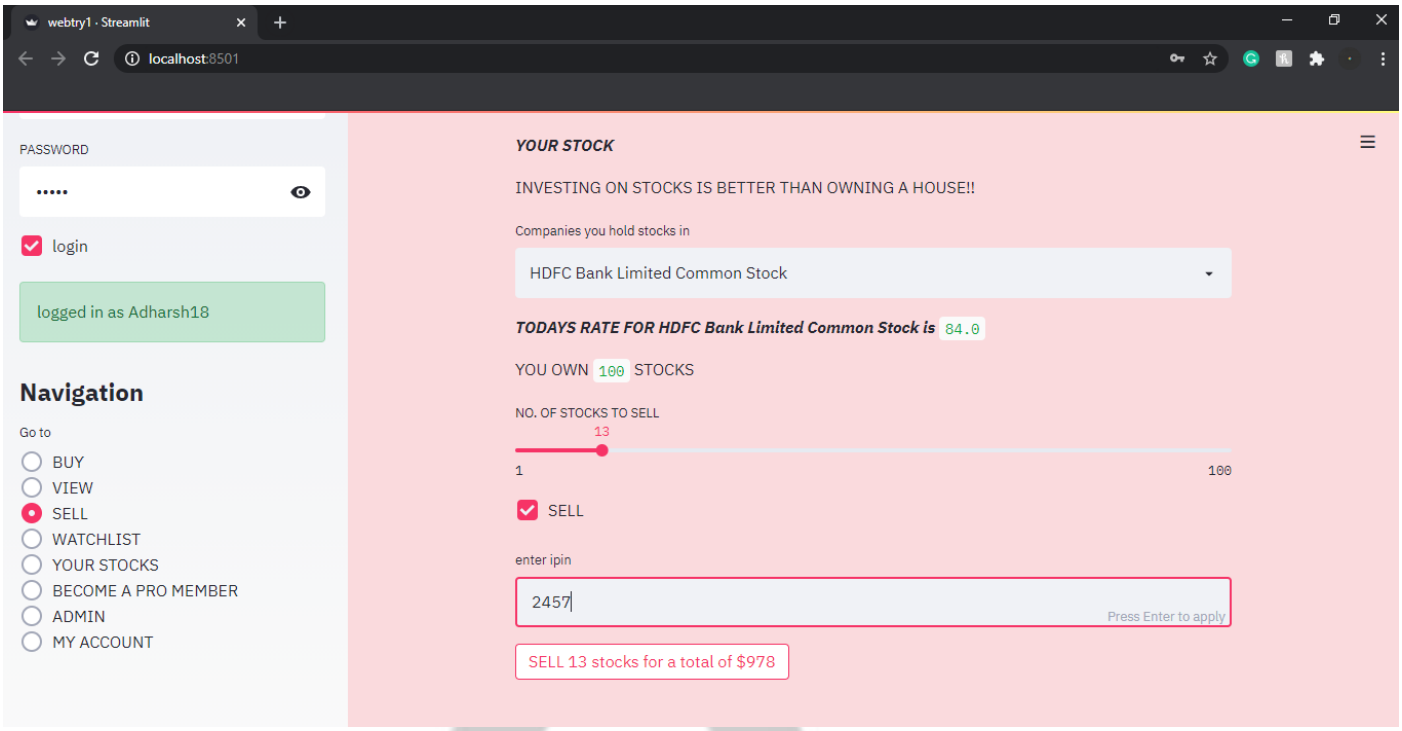
```
import streamlit as st
import pandas as pd
import pandas_datareader as web
import datetime
import sqlstock

import buy




corporate = buy.read()

def getdata(company_name):
    company_list = list(corporate['company'])
    company_index = company_list.index(company_name)
    company_symbol = corporate['symbol'][company_index]
    return
web.DataReader(company_symbol,data_source='yahoo',start='19
90-01-01',end=datetime.date.today())



def cont(a):
```

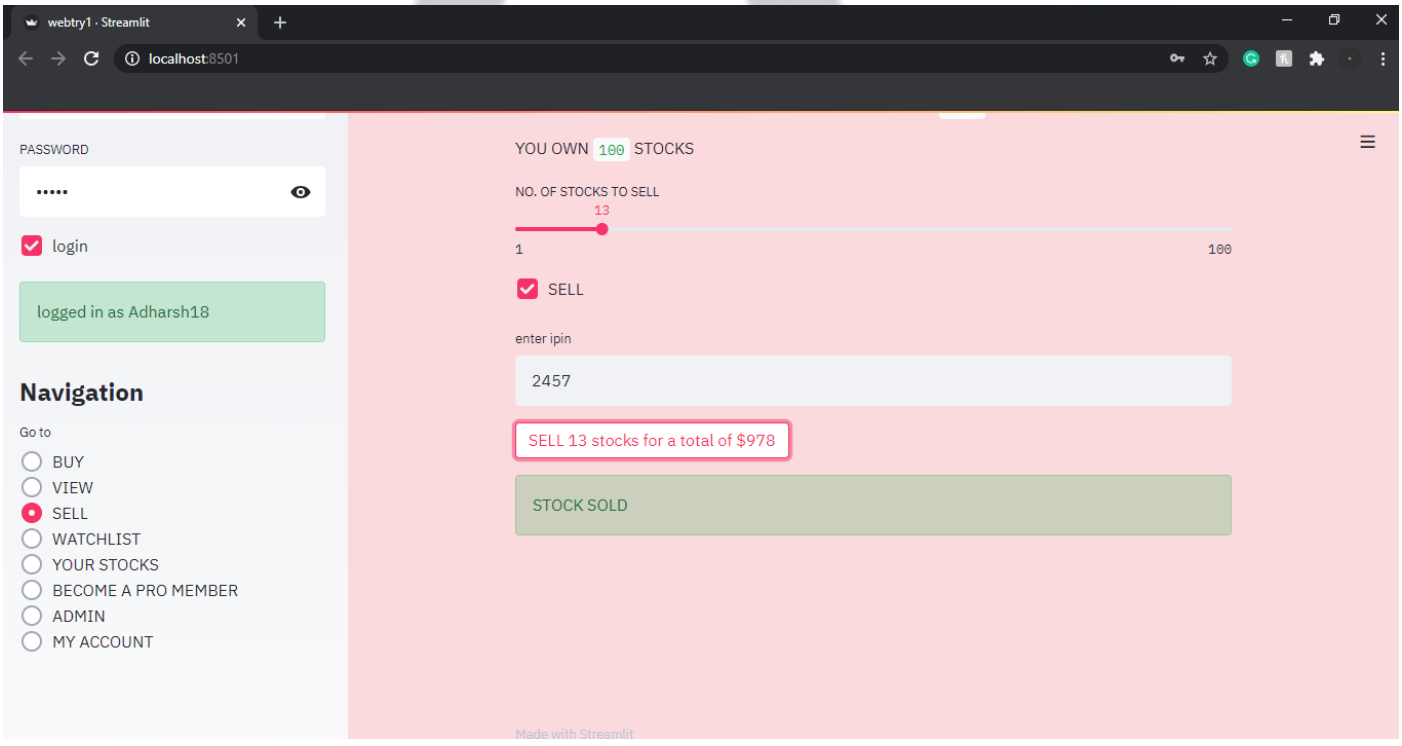
```
tb = sqlstock.get_watchlist(a[0][0])
comp=st.selectbox('COMPANY',list(corporate['company']))
data = getdata(comp)
co = list(corporate['company'])
no = co.index(comp)
st.write('***'+comp+'***')

st.write(corporate['description'][no])
st.write('company volume')
st.line_chart(data['Volume'])
del data['Volume']
dat = st.multiselect("choose datas",data.columns)
for i in dat :
   st.write('company data :',i)
   st.line_chart(data[i])
comps = []
for j in tb:
   comps.append(j[0])
if comp in comps:
   st.write('You already have watchlisted the stock')
   b = st.button('remove watchlist')
   if b:
      sqlstock.remove_watchlist(a[0][0],comp)
```

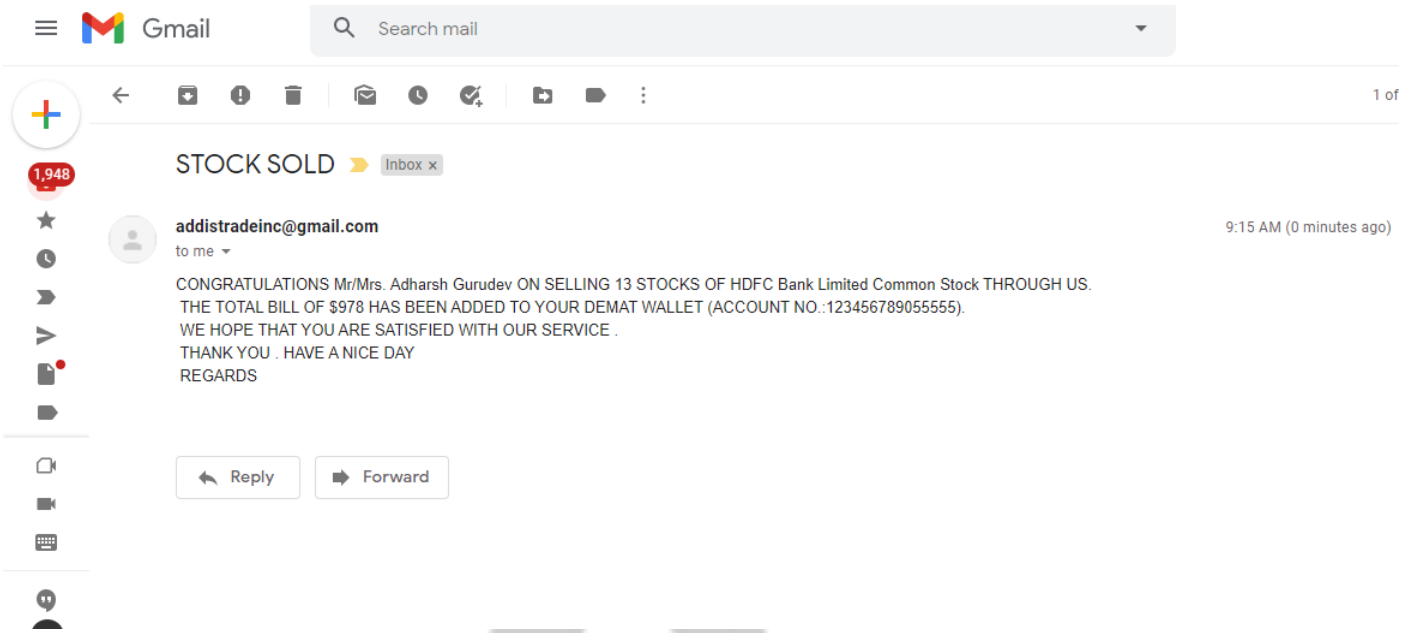
```
        st.success('STOCK REMOVED')
    else:
        b = st.button('add to watchlist')
        c = sqlstock.get_watchlist(a[0][0])


        if b:
            if len(c)>4 and a[0][-1] != 'pro':
                st.warning('You have already watchlisted 5 stocks \n
Become a pro member to get unlimited watchlist capacity')
            else:
                sqlstock.add_watchlist(a[0][0],comp)
                st.success('added to watchlist')
```

SELL:

One can sell the stocks he or she owns using sell. The cost of selling is the same at the instant of selling. The sell works the same way as buy. The number of stocks to be sold can be adjusted with a slider and before selling the IPIN must be provided to make it a more secure process.


webtry1 · Streamlit
localhost:8501
PASSWORD
login
logged in as Adharsh18
Navigation
Go to
BUY
VIEW
SELL
WATCHLIST
YOUR STOCKS
BECOME A PRO MEMBER
ADMIN
MY ACCOUNT
YOUR STOCK
INVESTING ON STOCKS IS BETTER THAN OWNING A HOUSE!!
Companies you hold stocks in
HDFC Bank Limited Common Stock
TODAYS RATE FOR HDFC Bank Limited Common Stock is 84.0
YOU OWN 100 STOCKS
NO. OF STOCKS TO SELL
13
1
100
SELL
enter ipin
2457
Press Enter to apply
SELL 13 stocks for a total of $978


webtry1 · Streamlit
localhost:8501
PASSWORD
login
logged in as Adharsh18
Navigation
Go to
BUY
VIEW
SELL
WATCHLIST
YOUR STOCKS
BECOME A PRO MEMBER
ADMIN
MY ACCOUNT
YOU OWN 100 STOCKS
NO. OF STOCKS TO SELL
13
1
100
SELL
enter ipin
2457
SELL 13 stocks for a total of $978
STOCK SOLD
Made with Streamlit



WATCHLIST:

Watchlist is used when a customer eyes a stock and wants to analyze the stock closely. This also makes the decision process on investing on a particular stock hassle free.

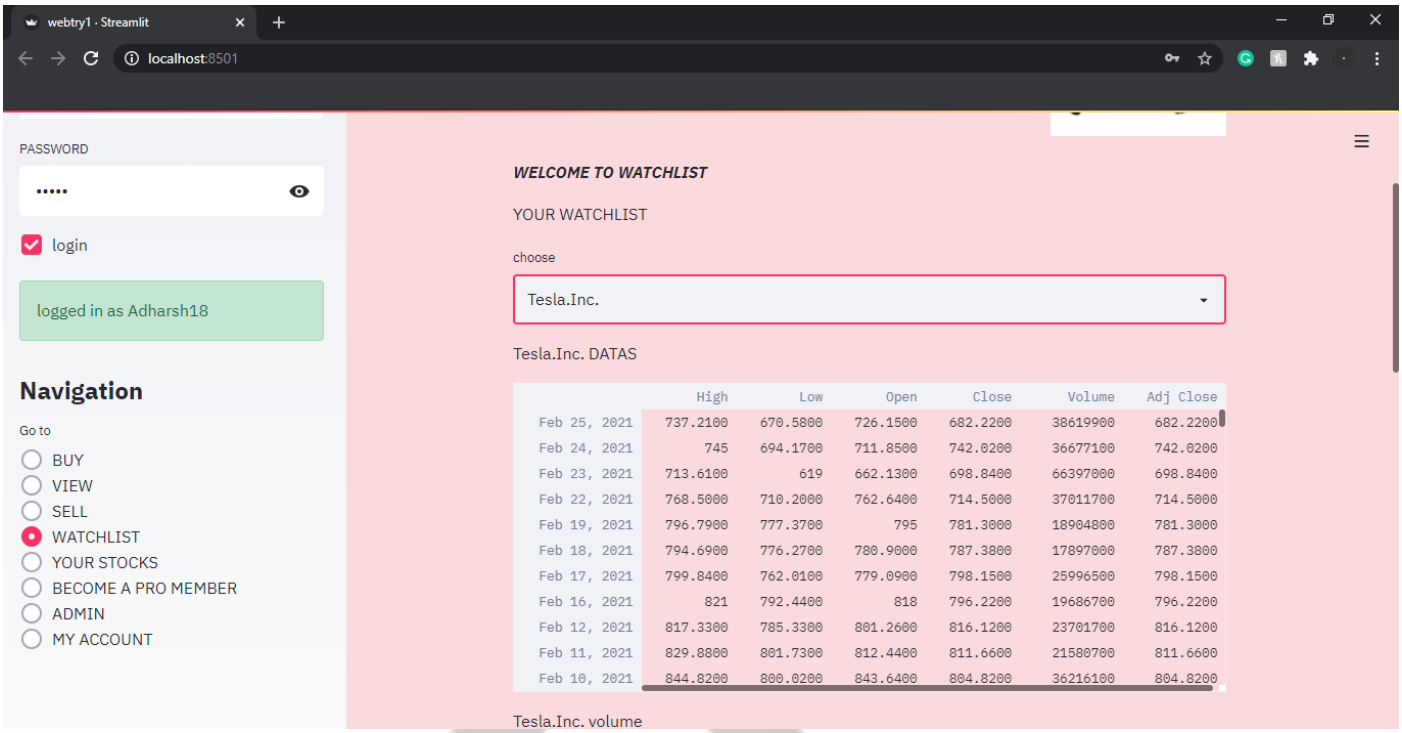
CODE:

```
import streamlit as st
import view
import sqlstock


def cont(a):
    st.write('***WELCOME TO WATCHLIST***')
    b = sqlstock.get_watchlist(a[0][0])
    if b==[]:
        st.write('YOU HAVE NOT ADDED STOCKS TO YOUR WATCHLIST')
    else:
        l=[]
```

```
st.write('YOUR WATCHLIST')
for i in range (len(b)):
   l.append(b[i][0])
c = st.selectbox('choose',l)
st.write(c,' DATAS')
data = view.getdata(c)
st.write(data.loc[::-1])
st.write(c,' volume')
st.line_chart(data['Volume'])
del data['Volume']
st.write(b[i][0],' close rates')
st.line_chart(data['Close'])
st.write(b[i][0],' open rates')
st.line_chart(data['Open'])
```

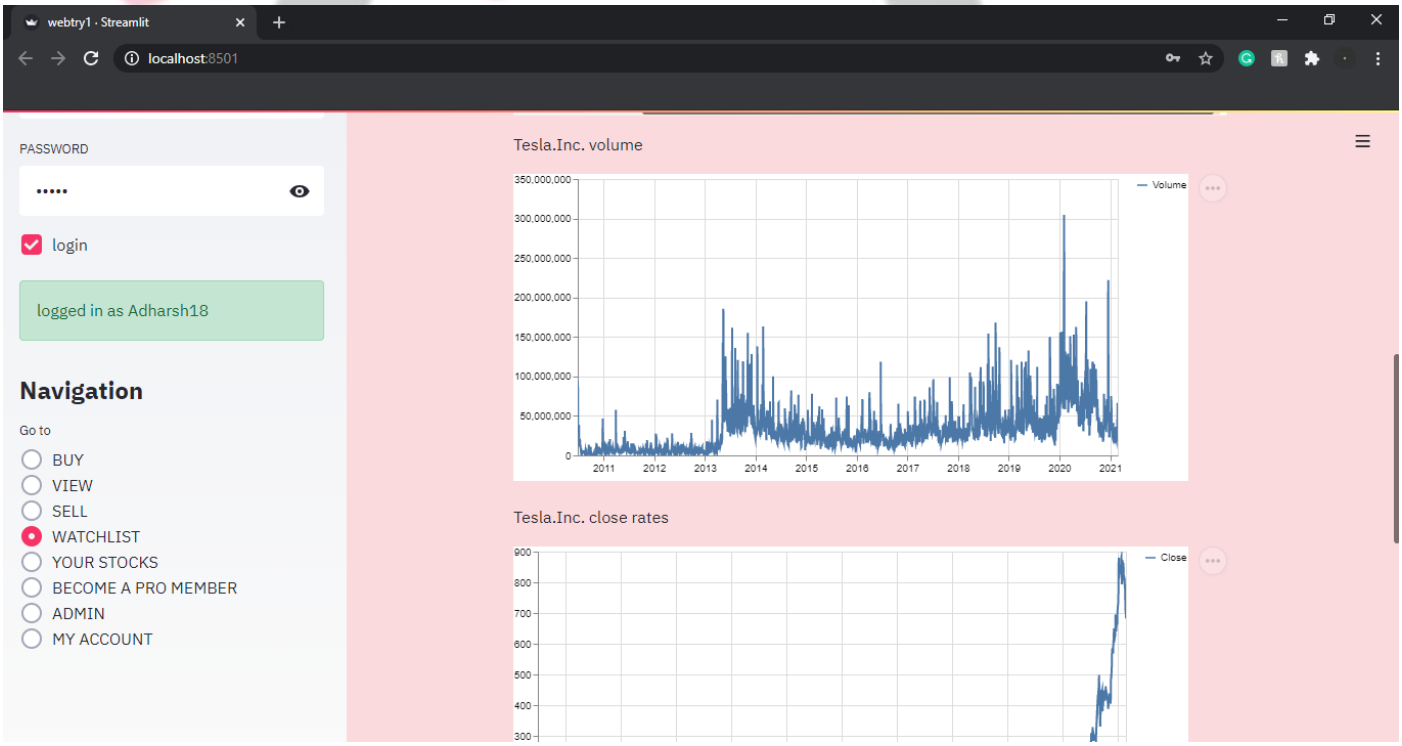
The customer can view all the stocks he/she has watch listed and the watchlist provides immense data about a particular company.

A customer can have a maximum of 5 companies in their watchlist and pro members can have unlimited access to watchlist.



The watchlist provides the data table which is a table that contains all the information about the particular stock.

The data table is followed with a volume graph ,open rate graph and a close rate graph.



YOUR STOCKS:

This page shows the entire information about the customer's trading activities and shows the net profit or loss a particular investment is becoming to the customer.

This page also shows the grand total investments made on stocks and also shows the profit or loss made by companies one has owned. It also includes the value of the stocks owned at the present rate and value of stocks that were sold on the day of selling. The cost of stocks are calculated using the cost of stocks bought daywise respectively.

Profits are shown with a green accent whereas losses are shown with a red accent.

CODE:

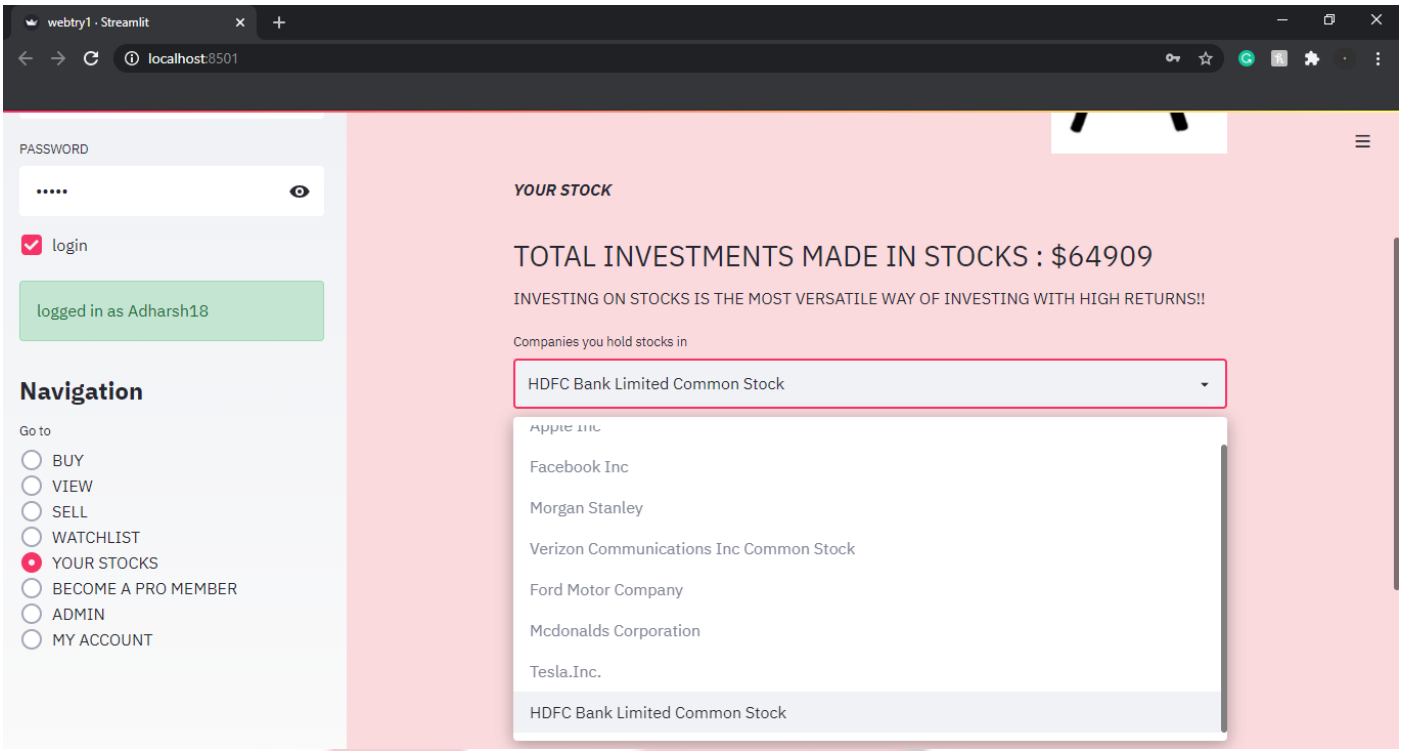
```
import streamlit as st
import sqlstock
import pandas as pd
import view
import buy



corporate = pd.read_csv("C:\\Users\\Lenovo\\Desktop\\ip project\\project\\corporate.csv",encoding='latin1')


def getfullname(company_symbol):
    company_list = list(corporate['symbol'])
    company_index = company_list.index(company_symbol)
    company_symbol = corporate['company'][company_index]
```

```
    return company_symbol


def cont(a):
    st.write('***YOUR STOCK***')


    pp = sqlstock.total_spend(a[0][0])


    d={}
    for j in pp:
        d[j[0]]=j[1]


    df = pd.Series(d)
    st.header('TOTAL INVESTMENTS MADE IN STOCKS :
$'+str(sum(df)))
    d2={}
    l1 = list(d.keys())
    for i in range (len(pp)):
        abb=l1[i]
        bb = sqlstock.my_stocks_quantity(a[0][0],abb)
        if len(bb)==2:
            d2[abb] = int(bb[0][0] - bb[1][0])
        else:
            d2[abb] = int(bb[0][0])
    b = sqlstock.my_stocks(a[0][0])
    if b==[]:
```

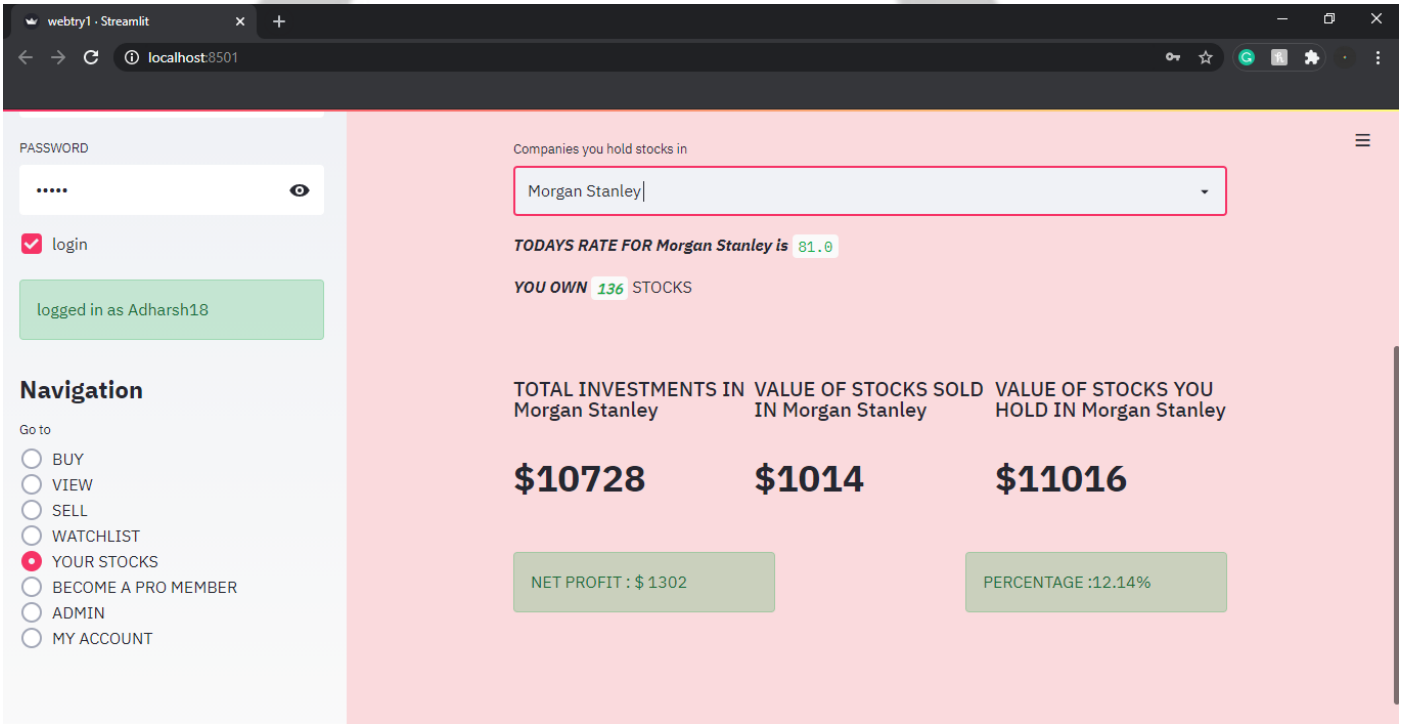
```
    st.write('YOU HAVE NOT BOUGHT ANY STOCKS')
  else:
    st.write('INVESTING ON STOCKS IS THE MOST VERSATILE WAY OF INVESTING WITH HIGH RETURNS!!')
    l = []
    for i in range (len(b)):
      l.append(getfullname(b[i][0]))
    choice = st.selectbox('Companies you hold stocks in',l)
    ab = sqlstock.my_stocks_quantity(a[0][0],buy.getsymbol(choice))
    data = view.getdata(choice)
    st.write('***TODAYS RATE FOR ',choice,'is ***', round(data['High'][-1]))
    if len(ab) == 2:
      ns = ab[0][0]-ab[1][0]
      st.write('***YOU OWN ',ab[0][0]-ab[1][0],'***STOCKS ')
    else:
      ns = ab[0][0]
      st.write('***YOU OWN ',ab[0][0],'***STOCKS ')
    x=buy.getsymbol(choice)
    y=df[x]
    c1,c2,c3=st.beta_columns(3)
    with c1:
      st.title('')
      st.subheader('TOTAL INVESTMENTS IN   '+choice)
      st.title('$'+str(y))
```

```
    with c2:
        st.title('')
        coo = 0
        xo=0
        vall = sqlstock.sell_value(a[0][0])
        if len(ab) == 2:
            coo = vall
            l={}
            for i in coo:
                l[i[0]]=i[1]
            st.subheader('VALUE OF STOCKS SOLD IN '+choice)
            xo=l[buy.getsymbol(choice)]
            st.title('$'+str(xo))
        else:
            st.subheader('VALUE OF STOCKS SOLD IN '+choice)
            st.title('$0')
            st.write('***YOU HAVE NOT SOLD ANY STOCKS IN
***'+choice)
    with c3:
        st.title('')
        st.subheader('VALUE OF STOCKS YOU HOLD IN '+choice)
        st.title('$'+str(int(data['High'][-1])*int(ns)))
    sp = (int(data['High'][-1])*int(ns))+xo
    cp = y
    profit=sp-cp
```

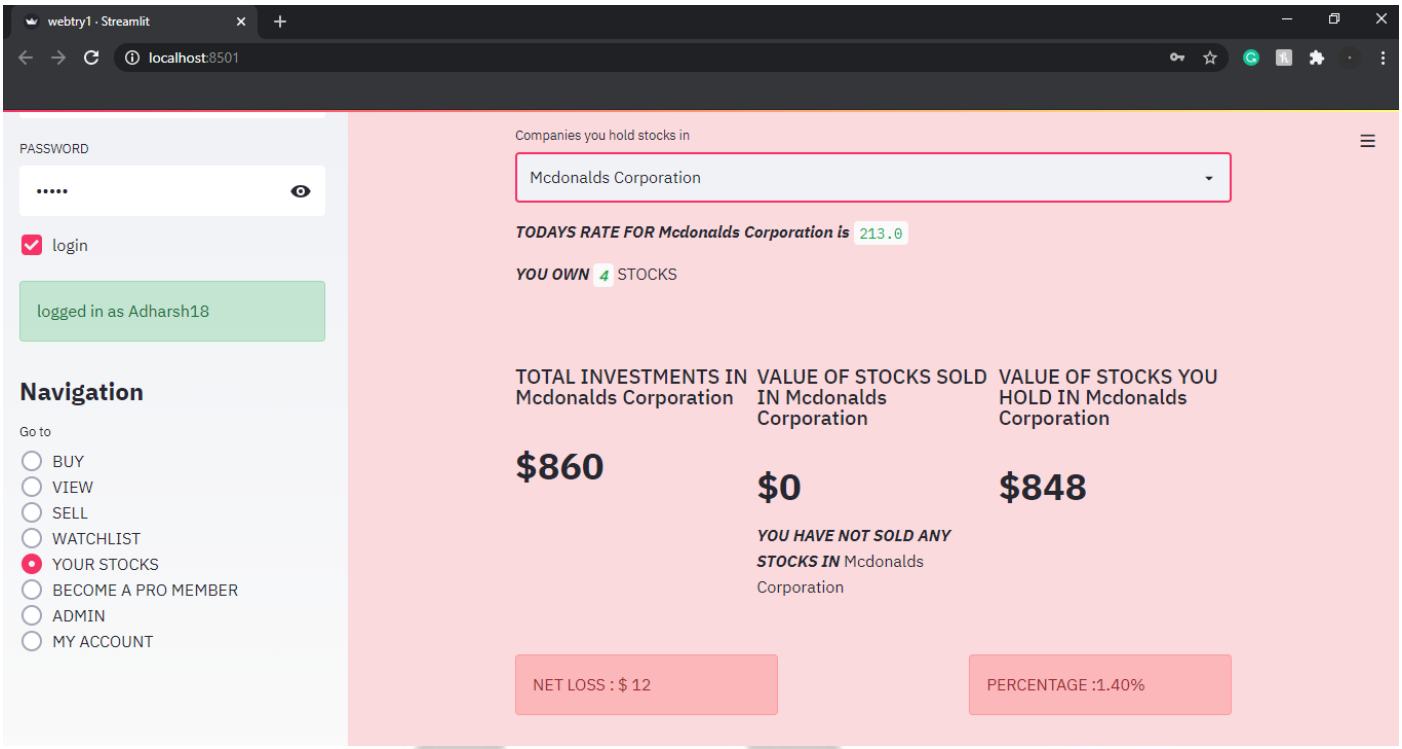
```
if profit<0:
    loss=0-profit
    c1,c2,c3 = st.beta_columns([1.5,1,1.5])
    with c1:
        st.header('')
        st.error('NET LOSS : $ '+str(loss))

    with c3:
        st.header('')
        st.error('PERCENTAGE :'+str(round(loss*100/cp,2))+'% ')
elif profit>0:
    loss=profit
    c1,c2,c3 = st.beta_columns([1.5,1,1.5])
    with c1:
        st.header('')
        st.success('NET PROFIT : $ '+str(loss))

    with c3:
        st.header('')
        st.success('PERCENTAGE :'+str(round(loss*100/cp,2))+'% ')


elif profit == 0:
    st.header('NO PROFIT OR LOSS')
    st.header('NET PROFIT: 0%')
```


webtry1 · Streamlit
localhost:8501
PASSWORD
login
logged in as Adharsh18
Navigation
Go to
BUY
VIEW
SELL
WATCHLIST
YOUR STOCKS
BECOME A PRO MEMBER
ADMIN
MY ACCOUNT
YOUR STOCK
TOTAL INVESTMENTS MADE IN STOCKS : $64909
INVESTING ON STOCKS IS THE MOST VERSATILE WAY OF INVESTING WITH HIGH RETURNS!!
Companies you hold stocks in
HDFC Bank Limited Common Stock
Facebook Inc
Morgan Stanley
Verizon Communications Inc Common Stock
Ford Motor Company
Mcdonalds Corporation
Tesla.Inc.
HDFC Bank Limited Common Stock

Profit :


webtry1 · Streamlit
localhost:8501
PASSWORD
login
logged in as Adharsh18
Navigation
Go to
BUY
VIEW
SELL
WATCHLIST
YOUR STOCKS
BECOME A PRO MEMBER
ADMIN
MY ACCOUNT
Companies you hold stocks in
Morgan Stanley
TODAYS RATE FOR Morgan Stanley is 81.0
YOU OWN 136 STOCKS
TOTAL INVESTMENTS IN Morgan Stanley
VALUE OF STOCKS SOLD IN Morgan Stanley
VALUE OF STOCKS YOU HOLD IN Morgan Stanley
$10728
$1014
$11016
NET PROFIT : $ 1302
PERCENTAGE :12.14%

Loss:



PRO MEMBERSHIP:

Addis trades offers pro membership to customers at $99 per year.

There are many benefits of being a pro member.

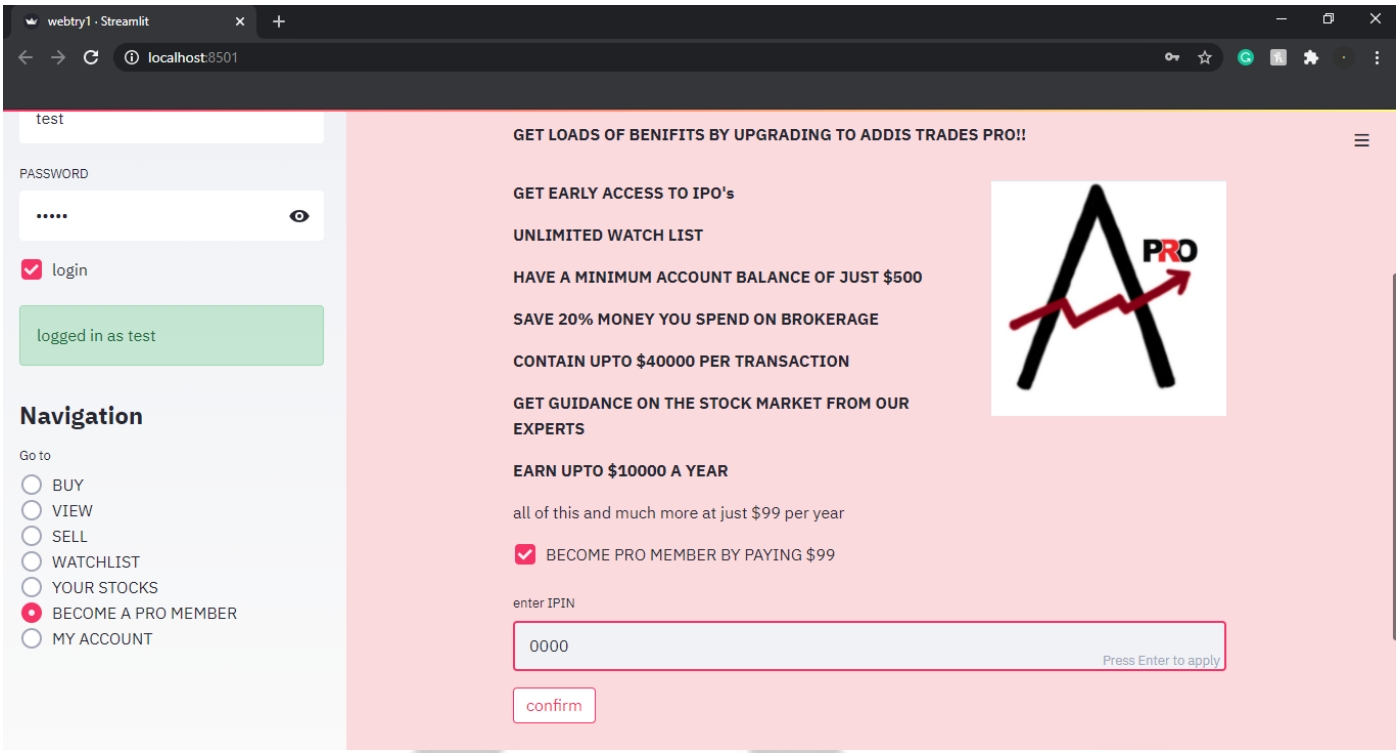
CODE:

```
import streamlit as st
from PIL import Image
import sqlstock


def cont(b):
   if b[0][6] == 'no pro':


      image=Image.open("C:\\Users\\Lenovo\\Desktop\\ip project\\project\\prologo.png")
```

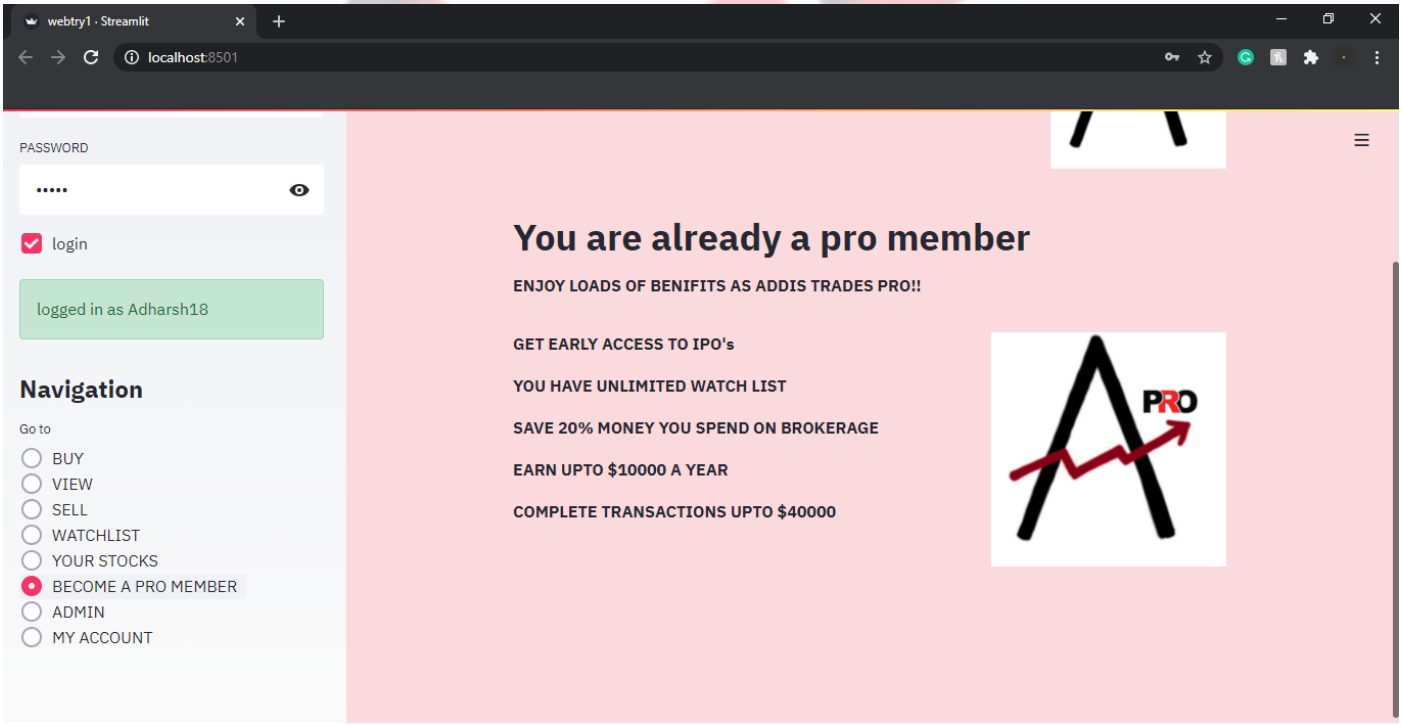
```
    st.write('**GET LOADS OF BENIFITS BY UPGRADING TO ADDIS TRADES PRO!!**' )
    st.write('')
    col1, col2 = st.beta_columns([2,1])
    with col1:
      st.write("**GET EARLY ACCESS TO IPO's**")
      st.write("**UNLIMITED WATCH LIST**")
      st.write("**HAVE A MINIMUM ACCOUNT BALANCE OF JUST $500**")
      st.write("**SAVE 20% MONEY YOU SPEND ON BROKERAGE**")
      st.write("**CONTAIN UPTO $40000 PER TRANSACTION**")
      st.write("**GET GUIDANCE ON THE STOCK MARKET FROM OUR EXPERTS**")
      st.write("**EARN UPTO $10000 A YEAR**")
    with col2:
      st.image(image,use_column_width='True')
    st.write("all of this and much more at just $99 per year")

    a=st.checkbox("BECOME PRO MEMBER BY PAYING $99")
    c = b[0][3]
    if a :
      pin = st.text_input("enter IPIN")
      b2 = st.button ('confirm')

      if b2:
```

```
            if pin == c:
                sqlstock.become_pro(b[0][0])
                st.success("congratulations! you are now a pro member")
                sqlstock.take_money(b[0][0],99)
            else:
                st.warning("incorrect IPIN")
    else:
        st.title('You are already a pro member')
        image=Image.open("C:\\Users\\Lenovo\\Desktop\\ip project\\project\\prologo.png")
        st.write('**ENJOY LOADS OF BENIFITS AS ADDIS TRADES PRO!!**' )
        st.write('')
        col1, col2 = st.beta_columns([2,1])
        with col1:
            st.write("**GET EARLY ACCESS TO IPO's**")
            st.write("**YOU HAVE UNLIMITED WATCH LIST **")
            st.write("**SAVE 20% MONEY YOU SPEND ON BROKERAGE**")
            st.write("**EARN UPTO $10000 A YEAR**")
            st.write("**COMPLETE TRANSACTIONS UPTO $40000**")
        with col2:
            st.image(image,use_column_width='True')
```

Screen for a non pro member:



Screen for a pro member:



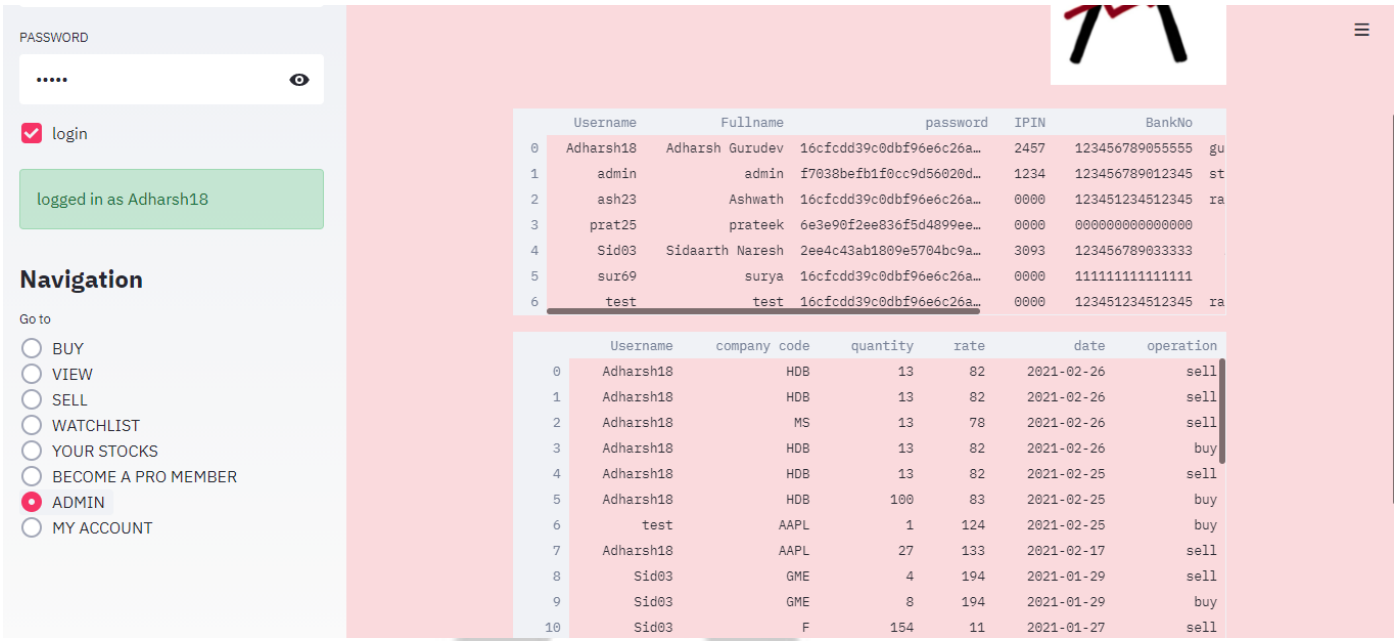
ADMIN:

This field is applicable only to the admin. They have access to information of all customers and all the transactions that take place.

CODE:

```
import streamlit as st
import sqlcust
import pandas as pd
def cont(a):
   b=a[0][0]
   if b in ('Sid03','Adharsh18'):
      data = sqlcust.all_data()
      a =
pd.DataFrame(data,columns=['Username','Fullname','password','IPIN','BankNo','Email','membership status','Acount Balance'])
      st.write(a)
      data2 = sqlcust.history()
      a2 = pd.DataFrame(data2,columns = ['Username','company code','quantity','rate','date','operation'])
      st.write(a2.loc[::-1])
```

OUTPUT SCREEN:



MY ACCOUNT:

This gives people the access to their wallet information, their history and change their account password.

CODE:

```
import streamlit as st
import sqlstock
import pandas as pd
import hashlib
from PIL import Image
```

```
corporate = pd.read_csv("C:\\Users\\Lenovo\\Desktop\\ip project\\project\\corporate.csv",encoding='latin1')
```

```
image=Image.open("C:\\Users\\Lenovo\\Desktop\\ip project\\project\\wallet.jpg")


def getfullname(company_symbol):
    company_list = list(corporate['symbol'])
    company_index = company_list.index(company_symbol)
    company_symbol = corporate['company'][company_index]
    return company_symbol



def secure(x):
    enc_word=x.encode('utf32')
    xs=hashlib.md5(enc_word.strip()).hexdigest()
    return xs

menu = ['wallet','my history','change password']
def cont(a):


    pp = st.selectbox('menu',menu)
    if pp == 'my history':
        st.write('***YOUR history***')
        b = sqlstock.my_history(a[0][0])
        st.write('INVESTING ON STOCKS IS BETTER THAN OWNING A HOUSE!!')
        df = pd.DataFrame(b,columns=['DATE','COMPANY','NO OF STOCKS','RATE','OPERATION'])
```

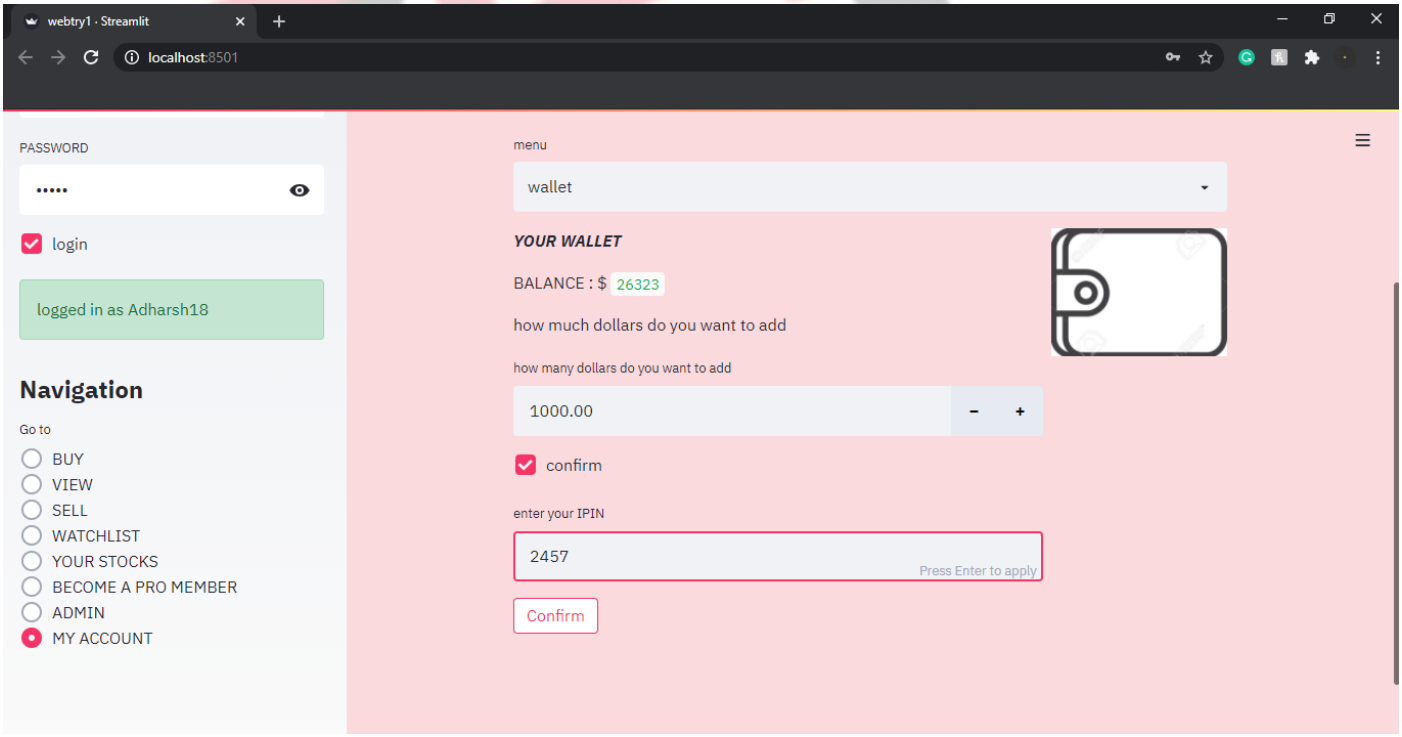
```
        s = list(df['COMPANY'])
        l=[]
        for i in range(len(s)):
            l.append(getfullname(s[i]))
        df['COMPANY'] = l
        df.set_index('DATE')
        st.write(df.loc[::-1])
    elif pp == 'wallet':
        c1,c2 = st.beta_columns([3,1])
        with c1:
            st.write('***YOUR WALLET***')
            b=sqlstock.show_balance(a[0][0])
            if b==[]:
                st.write('***You don t have any money in your wallet add
money***' )
            else:
                st.write('BALANCE : $',b)
            conf = 1
            dic = {'pro':40000,'no pro':20000}
            maxx = dic[a[0][6]]
            st.write('how much dollars do you want to add')
            a1 = st.number_input('how many dollars do you want to add
')
            if int(a1)+int(b)>40000:
                conf = 0
            a2 = st.checkbox('confirm')
```

```
        if a2 and a1<0:
            st.warning('ENTER VALID AMOUNT')
        else:
            if a2 and conf == 1:
                pi = st.text_input('enter your IPIN')
                c = st.button('Confirm')
                if pi == a[0][3] and c:
                    sqlstock.add_money(a[0][0],a1)
                    st.success('MONEY ADDED SUCESSFULLY')
                elif pi != a[0][3] and c:
                    st.warning('INCORRECT IPIN')
            elif a2 and conf == 0:
                st.warning('YOU CAN HOLD A MAXIMUM BALANCE
OF $'+str(maxx)+'\n YOU CAN ADD A MAXIMUM OF $'+str(maxx-
b))
        with c2:
            st.image(image,use_column_width=True)



    elif pp == 'change password':
        abi=st.text_input('enter your present password')
        p1=st.text_input('enter your new password')
        p2=st.text_input('confirm new password')
        pin = st.text_input('enter your ipin')
        if st.button('continue'):
```

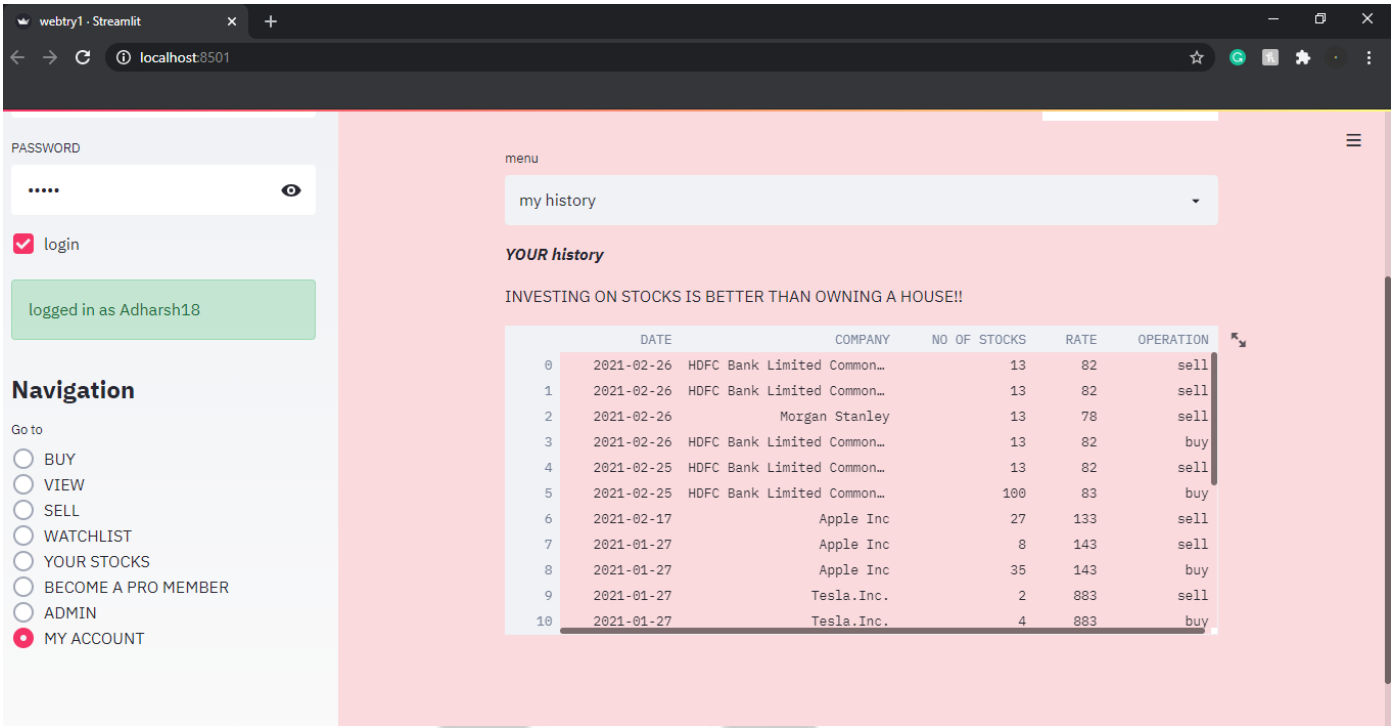
```
        if p1==p2 and secure(abi)==a[0][2] and pin==a[0][3]:
            st.success('UPDATED PASSWORD SUCESSFULLY LOGIN AGAIN WITH NEW PASSWORD')
            sqlstock.change_pass(a[0][0],secure(p1))
        elif abi==a[0][2]:
            if p1!=p2:
                st.warning('CONFIRM NEW PASSWORD PROPERLY')
            elif pin!=a[0][3]:
                st.warning('INCORRECT IPIN')
        else:
            st.warning('INCORRECT CURRENT PASSWORD')
```

OUTPUT SCREEN:

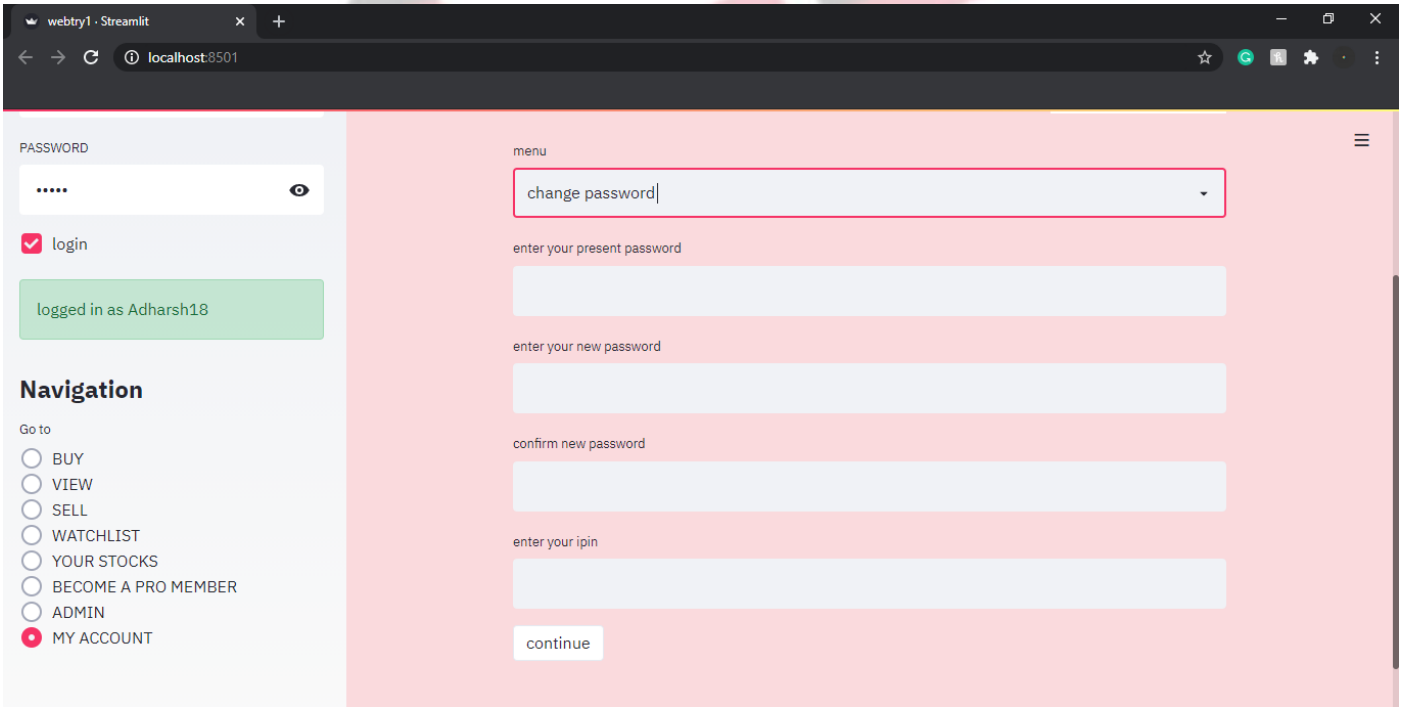
WALLET:



HISTORY:



CHANGE PASSWORD:



MAIL CONNECTIONS CODE:

```
import smtplib
from email.message import EmailMessage
def sub(a):
    server = smtplib.SMTP('smtp.gmail.com',587)
    server.starttls()
    server.login('addistradeinc@gmail.com','Jordanstockwolf99')
    server.sendmail('addistradeinc@gmail.com',a,'WELCOME TO ADDIS TRADES INCORPORATED !! \n WE WELCOME YOU TO JOIN THE HOTTEST AND MOST SAFEST STOCK BROKERAGE PLATFORM IN THE WORLD \n ADDIS TRADES INCORPORATED STRIVES TO MAKE SURE THAT YOU AS PEOPLE BE THE MOST BENIFITED \n THANK YOU \n REGARDS \n')
    server.quit()


def buy(a,b,c,d):
    msg = EmailMessage()
    msg.set_content('CONGRATULATIONS Mr/Mrs. '+a[0][1]+' ON BLOCKING '+str(d)+' STOCKS OF '+c+' THROUGH US. \n THE TOTAL BILL OF $'+b+' HAS BEEN TRANSFERRED FROM YOUR BANK ACCOUNT (ACCOUNT NO.:'+a[0][4]+') TO US. \n WE HOPE THAT YOU ARE SATISFIED WITH OUR SERVICE . \n YOUR ONLY REGRET WOULD BE NOT BUYING MORE \n THANK YOU . HAVE A NICE DAY \n REGARDS ')
    msg['Subject'] = 'STOCK HAS BEEN BLOCKED'
    msg['From'] = "addistradeinc@gmail.com"
    msg['To'] = a[0][5]
    server = smtplib.SMTP('smtp.gmail.com',587)
    server.starttls()
```

```
    server.login('addistradeinc@gmail.com','Jordanstockwolf99')
    server.send_message(msg)
    server.quit()

def sell(a,b,c,d):
    msg = EmailMessage()
    msg.set_content('CONGRATULATIONS Mr/Mrs. '+a[0][1]+' ON SELLING '+str(d)+' STOCKS OF '+c+' THROUGH US. \n THE TOTAL BILL OF $'+str(b)+' HAS BEEN ADDED TO YOUR DEMAT WALLET (ACCOUNT NO.:'+a[0][4]+'). \n WE HOPE THAT YOU ARE SATISFIED WITH OUR SERVICE .\n THANK YOU . HAVE A NICE DAY \n REGARDS ')
    msg['Subject'] = 'STOCK SOLD'
    msg['From'] = "addistradeinc@gmail.com"
    msg['To'] = a[0][5]
    server = smtplib.SMTP('smtp.gmail.com',587)
    server.starttls()
    server.login('addistradeinc@gmail.com','Jordanstockwolf99')
    server.send_message(msg)
    server.quit()


def password(a,b):
    server = smtplib.SMTP('smtp.gmail.com',587)
    server.starttls()
    server.login('addistradeinc@gmail.com','Jordanstockwolf99')
```

server.sendmail('addistradeinc@gmail.com',a[0][5],'WE HAVE PROCESSED YOUR REQUIREMENT FOR REVIVING YOUR FORGOTTEN PASSWORD. \n YOUR OTP IS :\n'+str(b)+' \n THANK YOU \n REGARDS \n')

server.quit()

LIMITATIONS OF THE PROJECT:

This project lacks an accurate way of predicting the stock rates and recommending stocks based on their expected growth.

This project contains 42 companies but the scope of expansion is easy and can be made more.

This project lacks a function that recommends stock to customers based on their previous transactions.

REFEERENCES:

- Class XI and XII IP text book
- Google.com
- Yahoo finance
- Streamlit.io
- Stackoverflow
- Github.com

CONCLUSION:

The project titled Stock Brokerage Management done by _____ for the academic year 2020-2021, has been completed and compiled , tested and executed successfully.