



Stock Prediction

Web Application

What is the Stock Prediction App?

The Stock Prediction web app is a Django web app where users can track stock market prices and receive estimated prices based off a TensorFlow Neural Network.

Who does our Application Target?

Our application audience is anyone interested in stocks and gaining information on prices, price changes, and stock predictions ,and charting analysis.

What is our Application meant to achieve ?

Our application aims to provide and Predict stock price changes based on historical stock data and other outside data (i.e. Finnhub.io, Google Trends). The app could send tips as to when to buy or sell stocks (this assuming that the predictions are accurate). Users of our app should be able to search for stocks based on the company name, be able to favorite certain stocks, and should also be able to receive notifications when favored stocks pass certain thresholds.



 94.4% 5.6% 100%

Our Stock Prediction web application
consists of 94.4% Python language
programming, 5.6% HTML code, and
100% Teamwork.

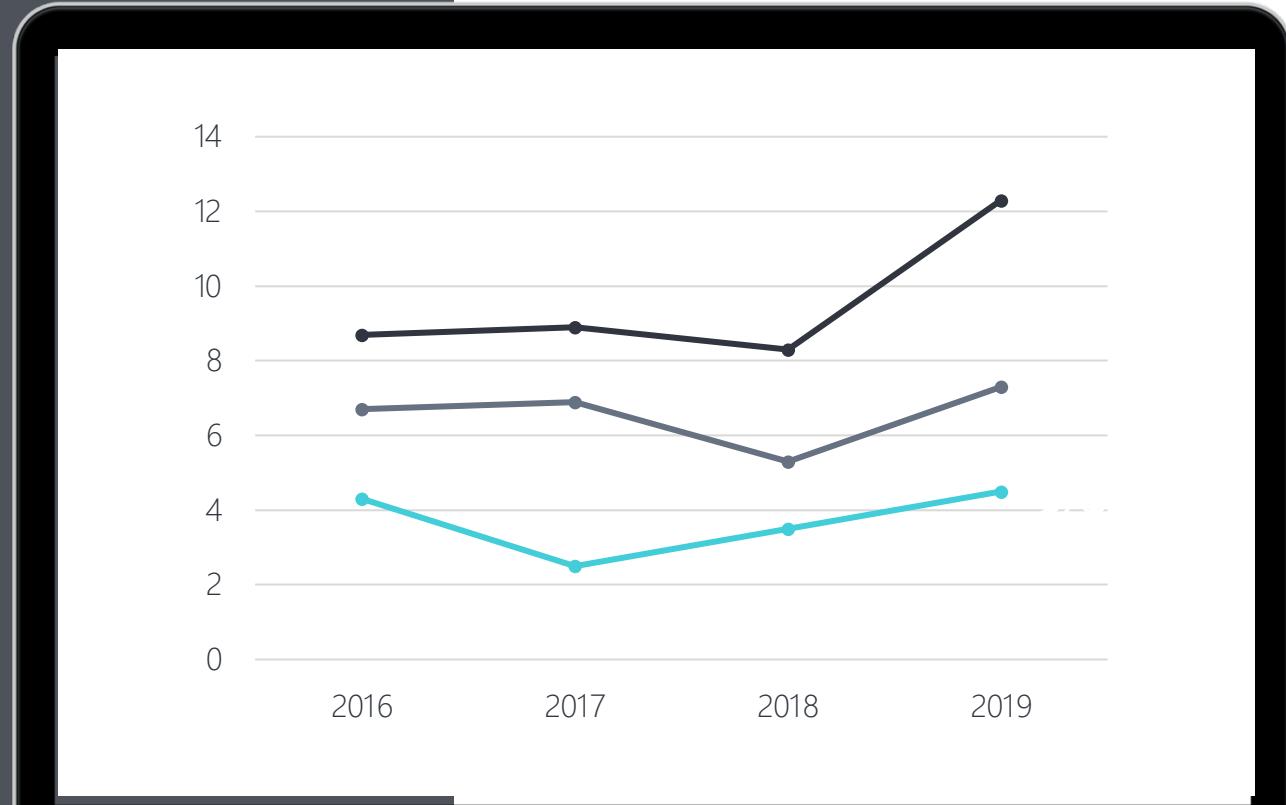
DATA DRIVEN

The Technology We Use

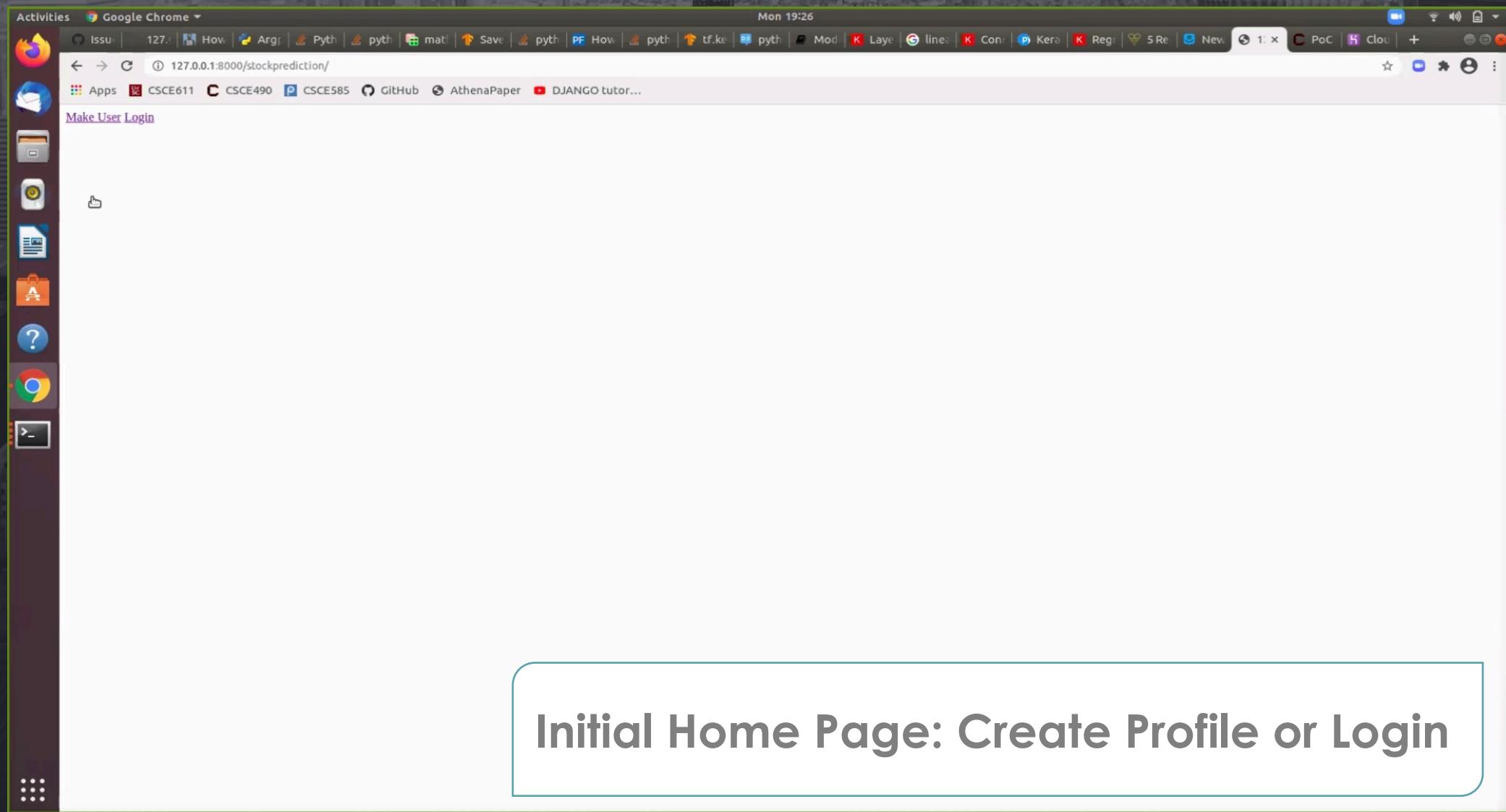
To achieve results a few APIs were used: Finnhub.io for Stock Prices, Investpy for Historical Data, and Keras Functional API for the Neural Networks that had to be trained.

Google Trends API was used for pytrends and the tracking of user interests in certain stocks, as well as which stocks were trending and searched quite frequently.

Celery, a reliable system to process vast amounts of messages, while providing operations with the tools required to maintain such a system, was used for Task Management.



Visual Representation of Functionality



Stock Prediction
Web Application

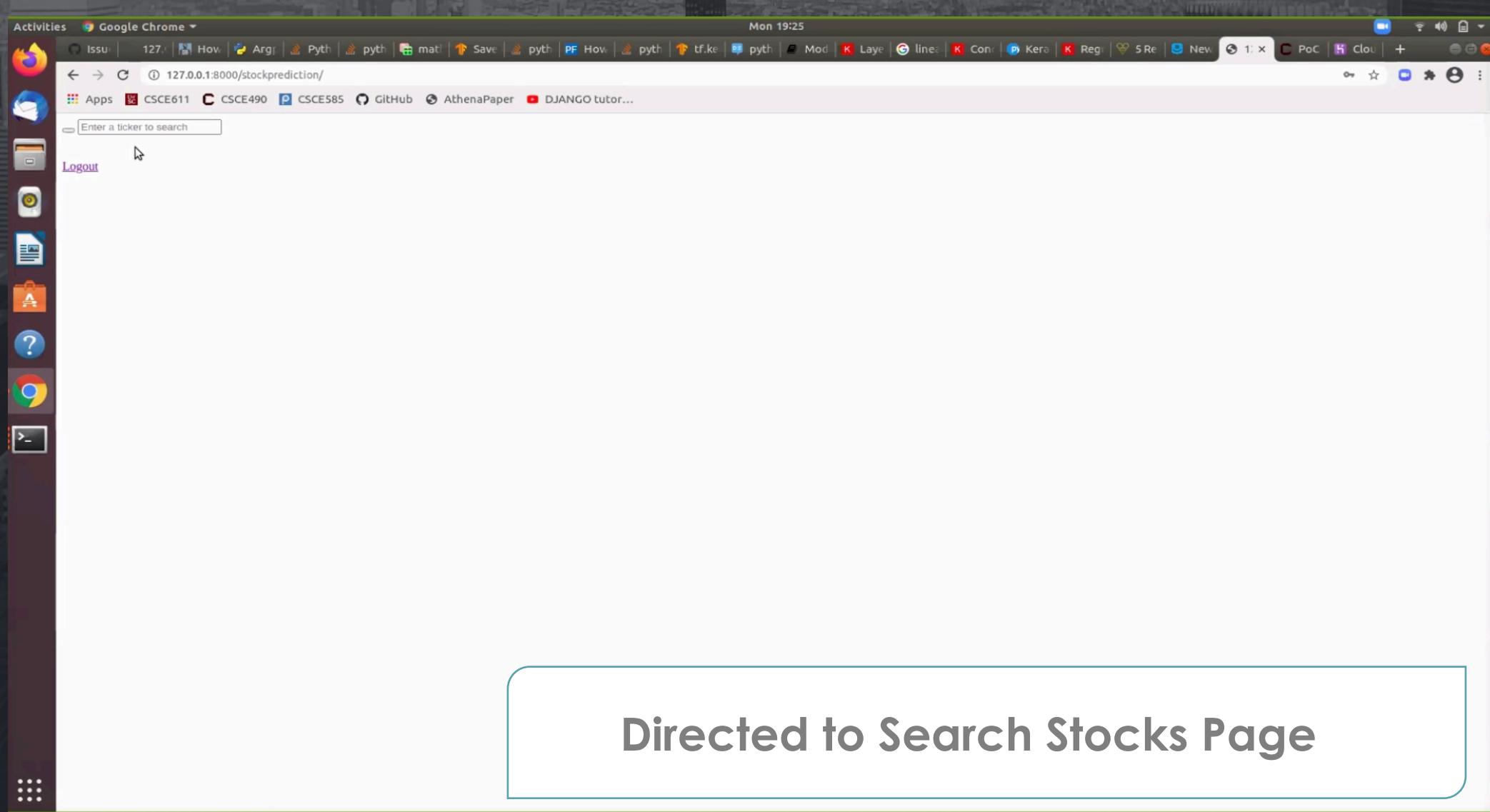
Visual Representation of Functionality

A screenshot of a Linux desktop environment with a dark theme. A window titled "Login" is open in Google Chrome, displaying a form with fields for "Username" (mziemer) and "Password". The browser's address bar shows the URL `127.0.0.1:8000/stockprediction/login/`. The desktop background features a city skyline at night with the MetLife building visible. A sidebar on the left contains icons for various applications like a terminal, file manager, and system settings.

User Login Page: Email and Password

Stock Prediction
Web Application

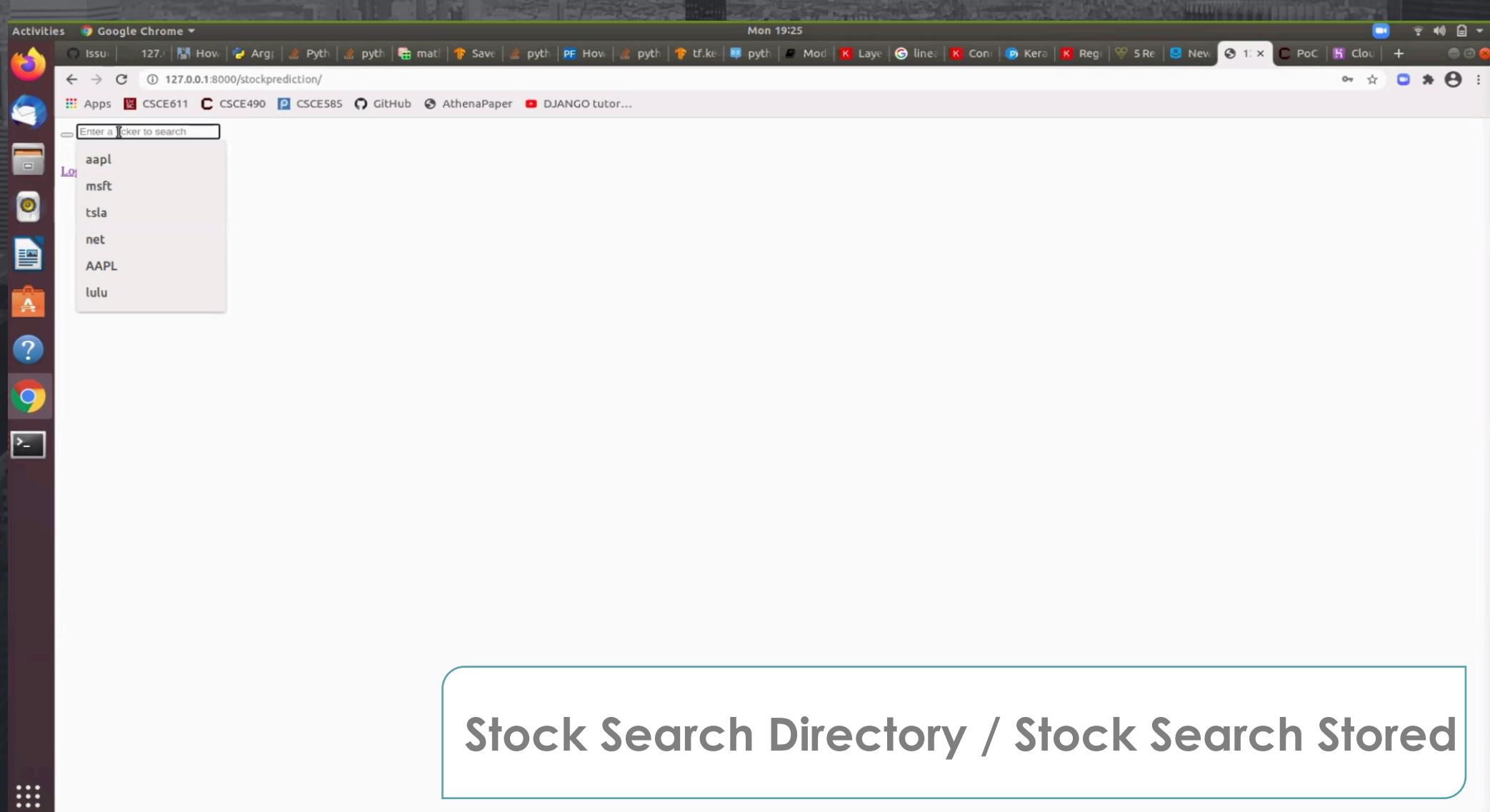
Visual Representation of Functionality



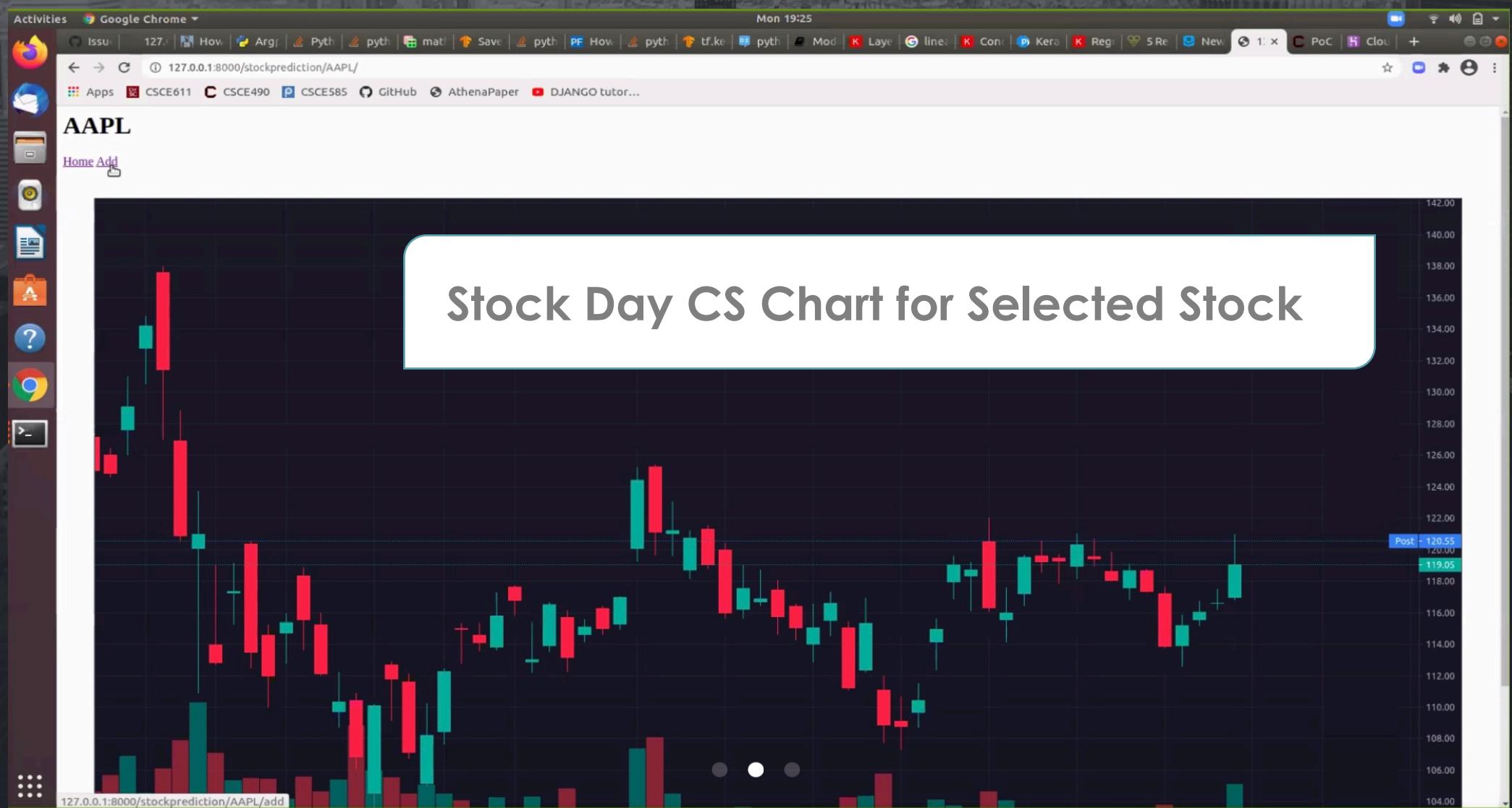
Directed to Search Stocks Page

Stock Prediction
Web Application

Visual Representation of Functionality

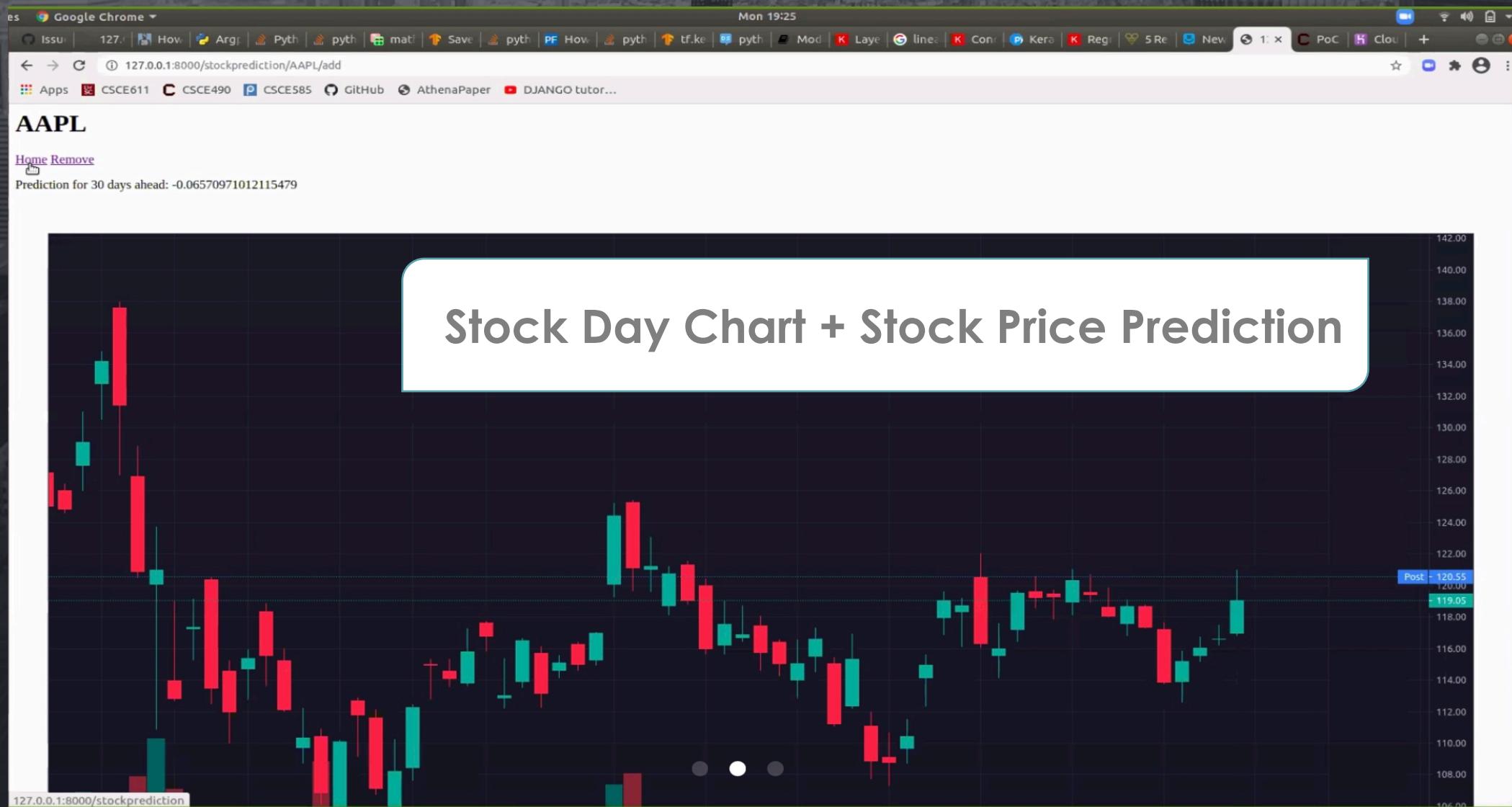


Visual Representation of Functionality



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Web Application

Visual Representation of Functionality



Stock Prediction
Web Application

Visual Representation of Functionality

The screenshot shows a web browser window titled "Google Chrome" with the URL "127.0.0.1:8000/stockprediction/?search=Tsla". The page displays search results for the ticker "TSLA" and previous predictions for "AAPL". On the left, there is a sidebar with various icons and a search bar labeled "Enter ticker to search". The main content area shows "Search Results" for "TSLA" and "Your predictions" for "AAPL". A "Logout" link is also visible.

Activities Google Chrome ▾

Mon 19:25

127.0.0.1:8000/stockprediction/?search=Tsla

Apps CSCE611 CSCE490 CSCE585 GitHub AthenaPaper DJANGO tutor...

Enter ticker to search

Search Results:

TSLA

Your predictions:

AAPL

Logout

Search Results Directory/Previous Predictions

Stock Prediction
Web Application

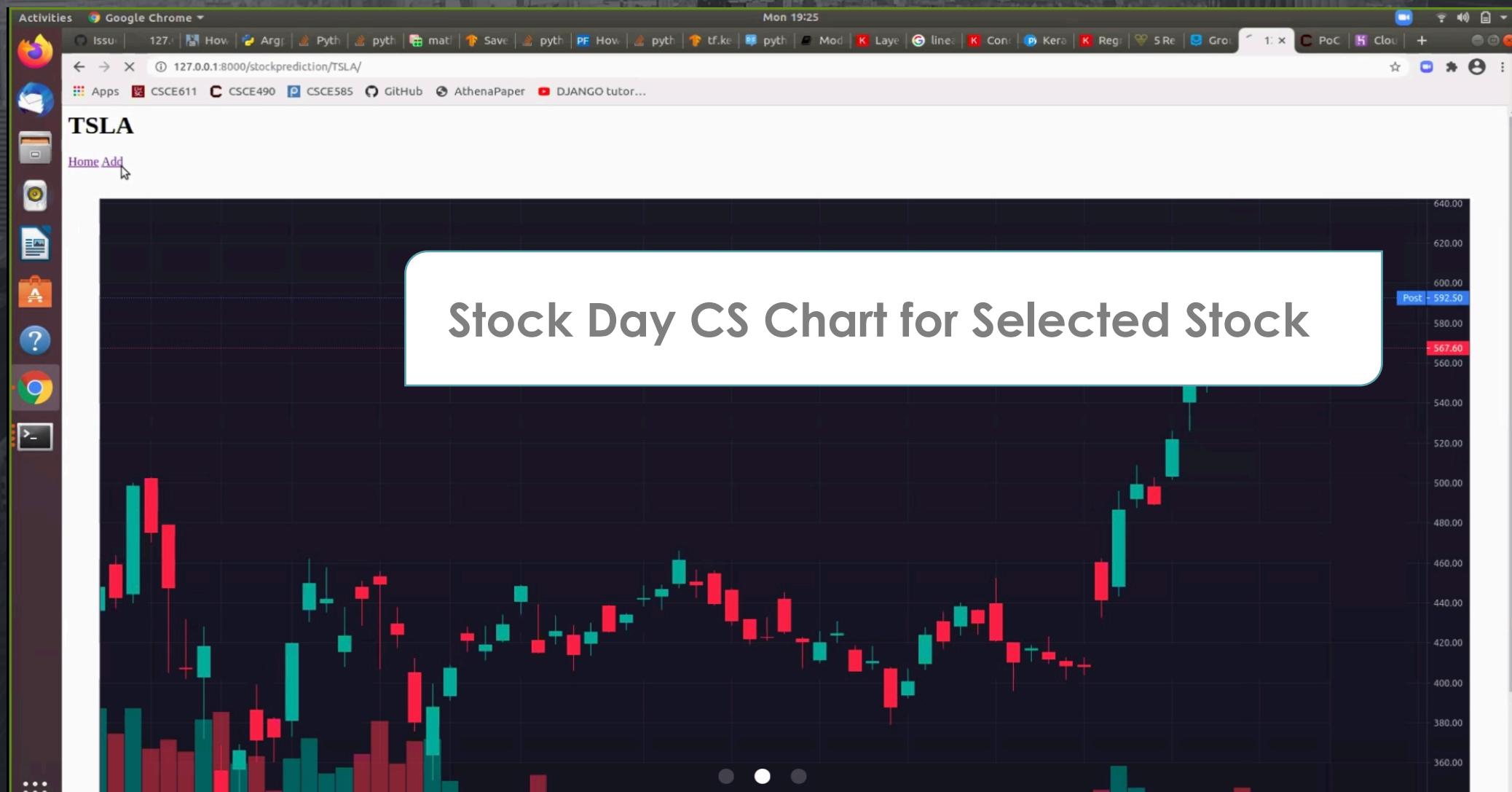
Visual Representation of Functionality

A screenshot of a Linux desktop environment. On the left is a dock with various icons, including a terminal, file manager, and system tray. A Google Chrome window is open, displaying a web page for stock prediction. The URL in the address bar is `127.0.0.1:8000/stockprediction/TSLA/`. The page title is "TSLA". Below the title, there are two links: "Home" and "Add". The main content area of the browser is currently blank. The desktop background shows a city skyline at night.

Stock Prediction
Web Application

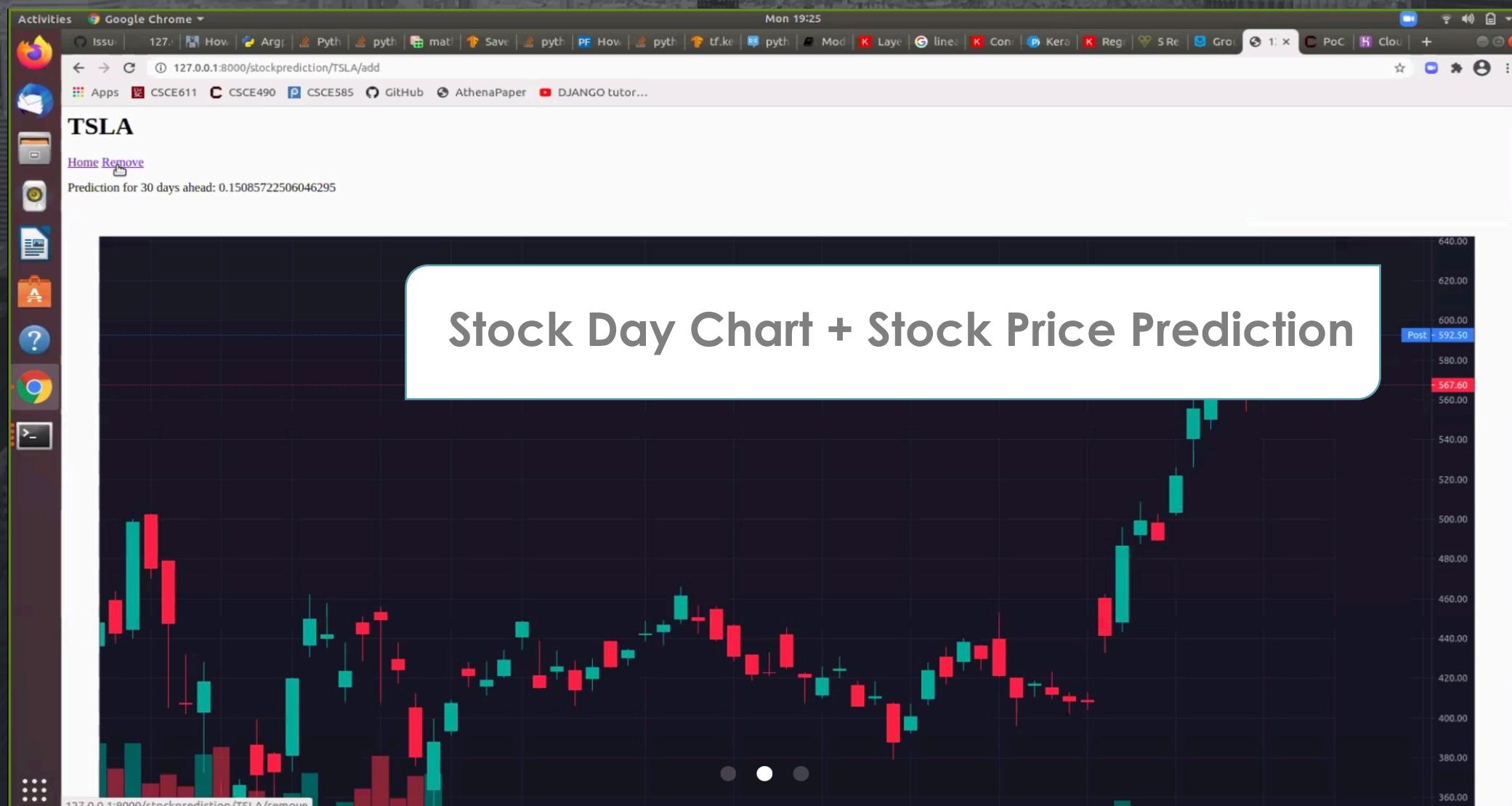
Stocks Search Results Addition

Visual Representation of Functionality



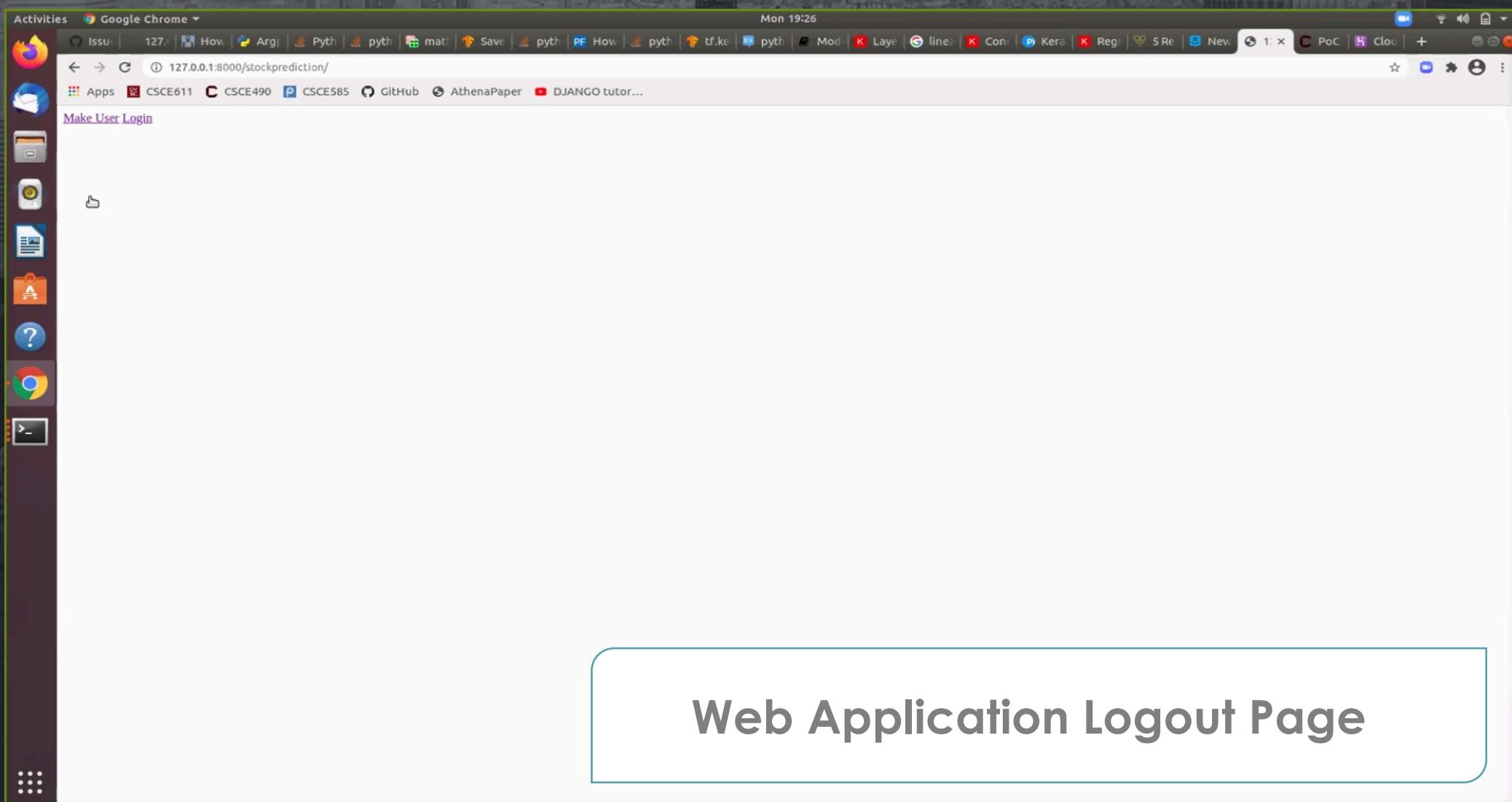
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Visual Representation of Functionality



Stock Prediction
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Visual Representation of Functionality





THANK YOU