

FLORIDA INTERNATIONAL UNIVERSITY



# Stock Predictor

**Students:** Jean-Elias Mestre, Daniel Lievano, Jean-Elias Mestre, Cristian Gonzalez, Manuel Albisu-Bouza

**Instructor/Faculty:** Dr. Masoud Sadjadi, Florida International University

## Introduction

- The Stock Prediction Program is a tool that uses historical stock data to predict future trends, using the Facebook Prophet library to generate forecasts based on a user-provided CSV file containing stock prices. The program offers an arsenal of tools for the user to work with when analyzing stock data. This software has been tested to work on Ubuntu 22.04 LTS and Debian 12.

## Addressing Stock Market Challenges

- Stock market fluctuations are highly unpredictable, challenging for investors and analysts.
- Existing tools lack personalization and efficient tracking.
- Proposed Solution:
- Integrates traditional predictive algorithms with a user-friendly web interface.
- Enables users to log in and easily track stock data in real-time.

## Requirements

### Programming Languages:

- Python
- C++

### Database:

- .CSV File

### Frameworks/Libraries:

- Python
- Pandas
- Matplotlibs
- Qt framework used for the user interface

## Solution

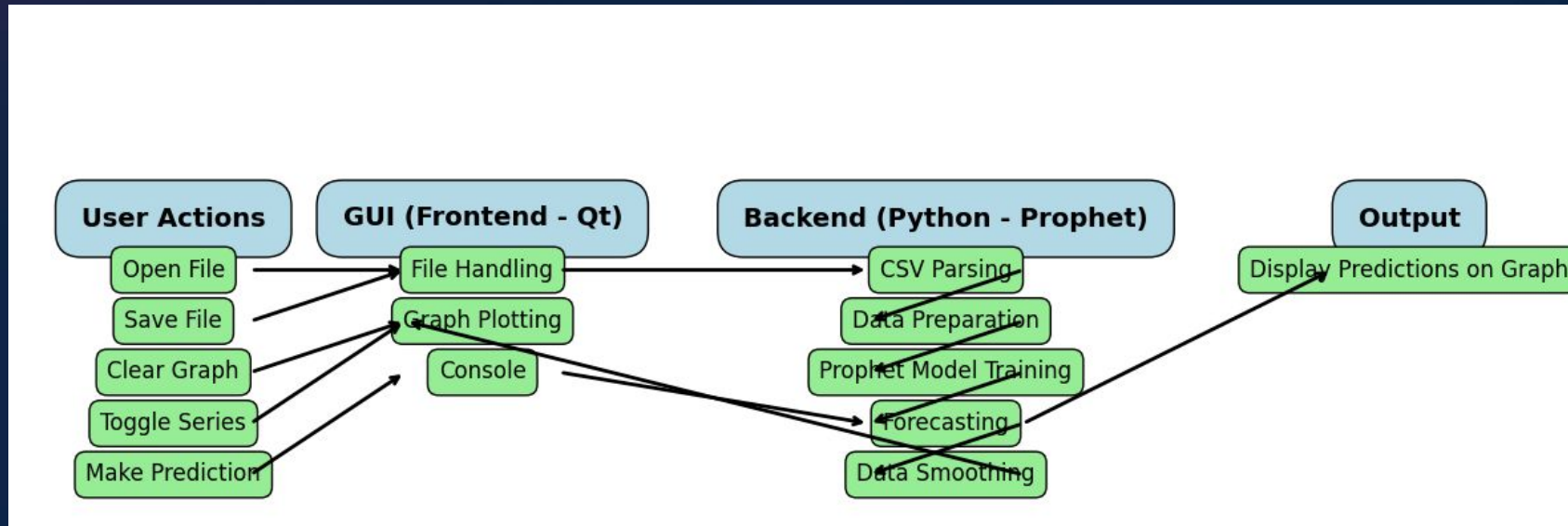
- Integrates traditional predictive algorithms with a user-friendly web interface.

The system will compile and process data from multiple inputs, such as CSV files extracted from NASDAQ and Yahoo, containing insights on financial reports, stock prices, market sentiment, and economic trends. Additionally, it will evaluate stock-related risks and leverage historical data to generate predictive analytics for informed decision-making.

## Goal

- Provide a seamless and effective stock-tracking experience tailored to user needs.

## System Design



## REFLECTION

- Gained a deep understanding of the effort required to deploy a fully executable app to the market.
- Overcame challenges due to varying experience levels and the need to learn new technologies essential for development.
- Adopted the SCRUM development process, gaining insights into:
  - Professional workflows
  - Daily demands of working on large-scale applications in team settings

## CONCLUSION

- Collaborated as a team to develop new skills using Python, Pandas, Matplotlib, and CSV files as a database.
- Built a user-friendly platform that delivers accurate and efficient stock predictions.
- Gained valuable experience with technologies that will support future success in the evolving tech field.