## PYTHON PACKAGE ABSTRACT

BY 20PT29 & 20PT37

TOPIC: FINANCIAL ANALYSIS USING PYTHON FOR LONG TERM INVESTING / ALGORITHMIC TRADING / DAY TRADING IN STOCK MARKETS

#### **ABSTRACT:**

- In the modern era, the stock markets have evolved, and has turned into a mathematician's game instead of an intuitive game
- Usage of mathematics, machine learning and various data science concepts has helped several hedge funds and investment bankers across the world to achieve remarkable returns on their investments
- Python is the most popular language used in the markets to pickup good stocks, to analyse historical data, and to execute trades
- Several HFTs/Proprietary trading firms use python for algorithmic trading
- We being stock market enthusiasts, made a package revolving around the following ideas

#### In our package we have,

- Analysed Historical data for finding good long term investment options
- ➤ We have modelled the best long/short term investments using statistics
- Fetched real time data using several sources (API's) to make decisions
- Used web scraping to scrape financial/historical/real time data and several volumetrics
- Used several stock market concepts to automatize trading and execute trades faster
- Used python for helping cryptocurrency investments

#### **CONCEPTS USED:**

- Pandas
- Numpy
- Matplotlib

# **PYTHON PACKAGE ABSTRACT**

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- Requests module
- Math module
- Scipy
- Statistics module
- Date-time
- Beautiful Soup
- Yahoo finance
- IEX cloud API
- BSE API
- Stock Market Technical/Fundamental analysis concepts
- Various data science concepts
- Mathematics/Economics concepts

BY,

SANDEEP KHANNA V P

&

**TEJAS SRINIVAS**