Stock Market Analysis

📌Overview

This project provides exploratory data analysis and visualization of stock market data using **Python**, **Pandas**, **Matplotlib**, and **Seaborn**. It focuses on identifying trends, analyzing price movements, trading volume, and statistical patterns for better insights into stock behavior.

🧱Features

- Import and clean stock market dataset (CSV)
- Convert and process date columns
- Descriptive statistics and missing value analysis
- Visualize:
- Closing price trends over time
- Daily trading volume
- Stock price range (High – Low)
- Moving averages (7-day & 14-day)
- Distribution of closing prices
- Group and compare trading volume by ticker

⚙️Installation

1. Clone this repository:

```
git clone https://github.com/yourusername/your-repo-name.git
```

2. Navigate to the project folder:

```
cd your-repo-name
```

3. Install required dependencies:

```
pip install pandas matplotlib seaborn numpy
```

🗜️Usage

1. Place your stock dataset (`stocks.csv`) in the project folder.

2. Run the Python script:

```
python analysis.py
```

3. Visualizations of trends and insights will be displayed.

📊Outputs

- **Line chart** of closing prices
- **Bar chart** of price ranges
- **Line chart** of trading volume
- **Moving average trends** (7 & 14 days)
- **Histogram** of closing price distribution
- **Bar chart** of total volume by ticker

📁File Structure

```
📂 stock-analysis
 ┣ 📜 analysis.py      # Main script
 ┣ 📜 stocks.csv       # Dataset (user-provided)
 ┣ 📜 README.md        # Project documentation
```

Contributing

Contributions are welcome! Feel free to fork this repository, raise issues, or submit pull requests to improve the project.

📜License

This project is open-source and available under the MIT License.