Stock Market Intelligence Suite

Project Goal:

Build a **complete stock market intelligence suite** to track performance, volatility, and trading insights across multiple companies and sectors using **Excel for analysis**, **Power BI for executive dashboards**, and **Tableau for storytelling**.

Project Workflow Overview:

Tool	Purpose
Excel	Data cleaning, financial calculations, early analysis
Power BI	Executive & trader-focused dashboard with dynamic filters
Tableau	Visualization storytelling and strategy recommendation

Project Breakdown by Tool

Part 1: Excel – Financial Modeling & Technical Indicators

Tasks:

1. **Clean the data**:
   - Format dates, handle blanks, fix types
2. **Calculate technical indicators**:
   - Daily Return: (Close - Open) / Open
   - Moving Averages (7-day, 14-day, 30-day) use ajclose
   - Volatility = (High - Low) / Open

3. **Build Pivot Analysis**:
   - Company-wise monthly return
   - Max Drawdown per company

Like:-

Go to Data → Sort

First by Company

Then by Date (Oldest to Newest)

Add a New Column for Running Maximum (Eg:-D)

Eg:- =IF(B2=B1, MAX(D1, C2), C2)(find peak price)

Column A: Date

Column B: Company

Column C: Price (e.g., Closing Price)

Add a New Column for Drawdown

Eg:- drawdown = C2/D2 - 1

4. **Visualizations**:
    - Line chart: Close vs Moving Average
    - Area chart: Cumulative Volume
    - Heatmap-style conditional formatting for daily return

Part 2: Power BI – Executive Dashboard & Sector Analytics

Tasks:

1. Connect to Excel data (or build model with Power Query)
2. Build:
    - **KPI cards**: Total return, Volatility %, Max volume day
    - **Line chart**: Closing prices over time (multi-company)
    - **Bar chart**: Sector-wise average return
    - **Map** (if using global companies): Geographic spread
    - **Scatter Plot**: Volume vs Volatility
3. Add **slicers**:
    - Date Range, Sector, Company
4. Implement:
    - Tooltips showing KPI charts, return, volume
    - Trend lines and forecast analysis using line and funnel and make a report

Part 3: Tableau – Strategy Report & Visualization Story

Tasks:

1. Import same cleaned data from Excel
2. Create dashboards:
    - Stock Performance Story: With daily trends and ROI
    - Volatility Heatmap (Company vs Date)
    - Profit Opportunity Dashboard: Highlight oversold (RSI < 30) stocks
3. Use story points:
    - Slide 1: Market Overview
    - Slide 2: Best Performers
    - Slide 3: Risk Factors

Final Deliverables:

1. Excel workbook:
    - Cleaned data, formulas, pivots, and charts
2. Power BI .pbix file:
    - Dynamic dashboard with filters and visuals
3. Tableau .twbx file:
    - Interactive story or dashboards
4. PDF Report (5–8 pages):
    - Executive Summary
    - Charts + Insight explanations
    - Key Findings & Strategy (Buy/Sell Recommendations)
    - Tool Comparison: Excel vs Power BI vs Tableau