🧭 Overview

This project simulates a real-time compliance and risk monitoring system for financial instruments such as equities, mutual funds, loans, and insurance products. It is designed to help analysts and compliance teams track policy adherence, flag exceptions, and assess risk exposure using dynamic dashboards and rule-based logic.

🎯 Objectives

- Monitor compliance status of financial instruments based on internal policy thresholds
- Assign risk scores using volatility and credit rating metrics
- Simulate real-time data refreshes to mimic live market behavior
- Automate exception tagging for non-compliant or high-risk instruments
- Visualize insights using Power BI for stakeholder reporting

📁 Key Components

- **financial_instruments.csv**: 250-record dataset of simulated financial instruments
- **risk_rules.xlsx**: Defines compliance thresholds and risk classification logic
- **refresh_simulator.py**: Python script to simulate live data changes
- **Power BI dashboard**: Visualizes compliance status, risk scores, and exception trends

🔍 Features

- Compliance tracker with exception tagging logic
- Risk scoring engine based on volatility and credit rating
- Real-time simulation of market behavior
- Dashboard visuals: pie charts, bar graphs, tables, and slicers
- Exportable audit trail and exception summaries

📈 Impact

- Demonstrates practical skills in compliance analytics and risk monitoring
- Builds foundational experience in BI tools and rule-based automation
- Ideal for showcasing governance, oversight, and data-driven decision-making