**Summit Wealth Partners: Data Analytics Project**

**Project Title:** Client Portfolio Performance and Risk Analysis

**Role:** Data Analyst

**Project Overview**

As a Data Analyst at Summit Wealth Partners, your goal is to deliver actionable insights that optimize client portfolio performance, identify trends, and mitigate risks. This project involves cleaning and analyzing datasets related to client portfolios, investments, transactions, and market prices.

You will use **SQL** for data cleaning and transformation and **Python** for advanced analysis and visualization. Your findings will support the Account Management Team in enhancing client relationships and strategic decision-making.

**Tasks and Requirements**

**1. Data Preparation (SQL)**

* **Objective:** Clean and prepare raw data to ensure accuracy and consistency.
* **Tasks:**
  1. Identify and remove duplicate entries across all datasets.
  2. Address missing values in critical columns (e.g., balances, transaction prices).
  3. Normalize investment types and account types for consistency.
  4. Create relationships between tables (e.g., Clients, Accounts, Investments, Transactions, Market Prices).
  5. Generate summary tables (e.g., total investments per client, yearly transaction trends).
* **Deliverable:** Cleaned SQL database with structured tables ready for analysis.

**2. Exploratory Data Analysis (Python)**

* **Objective:** Understand the data and uncover trends or anomalies.
* **Tasks:**
  1. Analyze portfolio distributions across risk tolerance levels.
  2. Identify high-performing securities by calculating ROI (Return on Investment).
  3. Detect transaction patterns (e.g., monthly trends, most traded securities).
  4. Evaluate portfolio diversification (e.g., percentage allocation to stocks, bonds, ETFs).
* **Deliverable:** Python scripts and a Jupyter Notebook containing exploratory analysis and visualizations.

**3. Portfolio Performance Analysis (Python)**

* **Objective:** Assess the performance of client portfolios.
* **Tasks:**
  1. Calculate portfolio values using the latest market prices.
  2. Compare historical portfolio performance against benchmarks (e.g., S&P 500).
  3. Evaluate risk metrics, such as standard deviation and Sharpe Ratio, for each portfolio.
  4. Identify underperforming investments and recommend changes.
* **Deliverable:** Portfolio performance metrics and recommendations in a presentation-ready format.

**4. Risk Analysis (SQL and Python)**

* **Objective:** Assess and mitigate risks for client portfolios.
* **Tasks:**
  1. Use SQL to identify clients with high concentrations in single securities or asset classes.
  2. Assess the impact of market volatility on portfolio values.
  3. Create a risk heatmap in Python to visualize risk exposure across clients.
  4. Recommend rebalancing strategies for portfolios with excessive risk.
* **Deliverable:** Risk analysis report with SQL queries and Python visualizations.

**5. Client Segmentation and Insights (Python)**

* **Objective:** Segment clients to personalize investment strategies.
* **Tasks:**
  1. Group clients based on demographics (e.g., age, city, risk tolerance).
  2. Identify high-value clients (e.g., clients with large portfolios or frequent transactions).
  3. Develop client personas to guide account managers in providing tailored advice.
* **Deliverable:** Client segmentation insights in the form of charts, graphs, and summary tables.

**Deliverables**

1. **SQL Database:** Cleaned and well-structured database ready for analysis.
2. **Jupyter Notebook:** Comprehensive analysis, including EDA, portfolio performance, risk analysis, and segmentation.
3. **Visualization Dashboard:** Interactive dashboards (using Python libraries such as Matplotlib, Seaborn, or Plotly) showcasing key metrics.
4. **Final Report:** A detailed report summarizing findings, insights, and actionable recommendations.
5. **Presentation:** Slide deck summarizing key insights and recommendations for the Account Management Team.

**Expected Insights**

1. Portfolio value trends by client risk tolerance and account type.
2. Most profitable securities and those contributing to losses.
3. Risk exposure for individual clients and aggregated portfolios.
4. Client segmentation insights to drive tailored investment strategies.
5. Recommendations for portfolio optimization and rebalancing.

**Timeline**

* **Week 1:** Data cleaning and SQL database preparation.
* **Week 2-3:** Exploratory Data Analysis (Python).
* **Week 4:** Portfolio performance analysis.
* **Week 5:** Risk analysis and mitigation strategies.
* **Week 6:** Client segmentation and reporting.
* **Week 7:** Finalize deliverables and present findings.

**Evaluation Criteria**

1. Accuracy and thoroughness of SQL queries.
2. Clarity and depth of Python-based analysis.
3. Relevance and actionability of insights.
4. Creativity and professionalism in visualizations.
5. Communication and presentation of findings.

Thank you for your hard work and dedication to providing data-driven insights that empower Summit Wealth Partners to deliver exceptional client value. Let’s work together to achieve excellence!