**Case Study for Quantitative Analyst Role:**

**Developing a Long/Short Cryptocurrency Strategy**

**1. Introduction**

* **Objective:** This case study aims to assess the candidate's ability to develop, implement, and back-test a long/short strategy in the cryptocurrency market.
* **Background:** Given the volatility and unique characteristics of the cryptocurrency market, effective quantitative strategies are essential for successful trading.

**2. Task Description**

* **Strategy Development:**
  + **Factor Selection:** Identify and define three market factors (e.g., momentum, liquidity, volatility etc.) to drive the trading strategy.
  + **Strategy Implementation:** Describe how these factors will be utilized to initiate long and short positions in cryptocurrencies.
* **Back-testing:**
  + **Scope:** Conduct back-testing of the strategy over a specified historical period (e.g., past two years) with at least daily frequency data.
  + **Performance Metrics:** Evaluate the strategy using metrics such as Sharpe ratio, maximum drawdown, and total return.
* **Reporting Findings:**
  + Provide a comprehensive report detailing the strategy, back-testing process, and results. Include rationale behind factor choices and strategy decisions.

**3. Technical Requirements**

* **Programming Languages/Tools:** Any language appreciated but python is preferred.
* **Data Sources:** Candidates may use any reliable cryptocurrency data sources for analysis.

**4. Submission Guidelines**

* **Format:** Submit a document outlining the strategy, a link to the GitHub repository for code, and any additional documentation.
* **Deadline:** 15.01.2024