Quant 101 - Project

Background

You are a junior quant analyst at an asset management firm. Your task is to design, test, and evaluate a simple systematic equity strategy for the Indian market.

Scope

- Asset universe: Nifty50 index
- Strategy type: Trend following OR momentum
- Data frequency: Daily or monthly

Part A - Strategy Design

Tasks

- Describe your strategy logic and mechanics
- Classify it as:
  - Trend following Or
  - Momentum
- Elaborate on: When it should work Key risks (market, liquidity, model)

Part B - Backtesting and performance

Tasks

- Implement the strategy on Nifty50
- Compute:
  - Periodic returns
  - Cumulative returns
  - Maximum drawdown
- Compare performance with:
  - Buy-and-hold Nifty50

Part C - Risk Measurement

Tasks

- Compute 1-day 99% Value-at-Risk using:
  - Historical simulation
  - Variance-Covariance approach
- Comment on the reason for difference in the results obtained

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NOTE: Submit your project as a PDF file along with the supporting Excel file in the same drive containing the assignment submission.