

Decision	Chose	Alternatives	Why	Materiality (High/Med/Low)
Input scope	Used only the local methodology document and CSV history.	Fetch market data, calendars, rates, or external methodology.	Instruction prohibited external resources; all required fields were present locally.	High
Workbook tooling	Used preinstalled openpyxl; installed no packages.	Install xlswriter/openpyxl or use external Excel automation.	Package installation was unnecessary and would add avoidable supply-chain risk.	Low
Term dates	Issue and expiry are first CSV trading days on or after Jan 1.	Use calendar Jan 1, previous trading day, or exchange calendar from outside data.	Matches instruction and avoids external calendars.	High
Option state variable	Priced in moneyness $x = \text{index level} / S0$ with strike $x=1$.	Price directly on index points.	Instruction specified moneyness; per-100 notional then scales values by 100.	High
Starting maturity	Issue-date premium and delta use $T=1.0$; later rows use calendar tau to expiry.	Use actual issue-to-expiry days for issue premium, or force a linear one-year clock.	Instruction states $T=1$ for the starting value and also defines remaining tau by calendar days.	Med
Volatility	Used 6.5% implied volatility for all pricing and hedge deltas.	Estimate realized volatility from history or vary vol by term.	Instruction gives a fixed implied volatility.	High
Risk-free rate	Used the issue-date 3-month T-bill rate for each term's Black-Scholes r .	Use daily rates, average rates, or a curve.	Instruction specifies the issue-date 3-month rate.	High
Dividend yield	Used 1% times full-file average equity weight.	Use current equity weight, daily equity weight, or zero dividend yield.	Methodology says equity sleeve is price return and pricing uses long-term average allocation.	High
Cash return conversion	Converted T-bill percent to daily cash return as $\text{rate} / 252$.	Use 365.25-day accrual or infer cash returns from index residuals.	The file is trading-day history and $/252$ aligns with observed cash-sleeve accrual to rounded data.	Med
Hedge instrument level	Applied delta to equity, bond, and riskless cash sleeve returns using prior-day sleeve weights.	Treat the aggregate index as directly tradable.	Instruction requires component-level hedging and says cash return is included in hedged returns.	High
Look-ahead prevention	Used prior-day delta and weights for each day's component return.	Use same-day delta or same-day weights.	Instruction explicitly says prior-day delta and weights.	High
Issue-day hedge P&L	Set issue-day daily hedge gain to zero.	Apply the issue-date CSV return to the new option.	The issue-date return occurred before the option was issued; the first hedge return is next trading day.	High
Expiry settlement	Included the hedge return into the expiry date and then settled intrinsic payoff.	Stop hedge on prior trading day or exclude expiry-day return.	The hedge is held daily until expiry and the payoff is known on the expiry date.	High
P&L sign	Reported short-call carrier P&L = premium + hedge gains - payoff.	Report long-option replication error or hedge-only P&L.	Carrier sells the option; instruction asks net profit/loss of running the hedge.	High
Transaction costs and financing	Excluded bid/ask, commissions, taxes, margin, and separate financing of hedge notionals.	Model trading costs and funding cash account.	No cost or financing assumptions were supplied; adding them would require external assumptions.	Med
Data precision	Used CSV values as supplied, including rounded weights and returns.	Reconstruct unrounded index components or smooth data.	Only the provided file is allowed and should be traceable.	Med
Formula policy	Hardcoded raw CSV inputs, assumptions, dates, and labels; formulas drive derived calculations.	Paste all calculated outputs as static values.	Live formulas make the workbook reviewable and responsive to assumption changes.	Med
Total P&L	Summed term-level net P&L per 100 across the ten annual issues.	Compound or average the annual results.	Instruction asks for each term and total per 100 notional.	High