

1. Conditional / Column Formatting

- *“Highlight all rows where species is Adelie.”*
 - *“Add data bars to the bill_length_mm column.”*
 - *“Color the island column with a different color for each unique island.”*
 - *“Highlight cells in the sex column that are blank or missing.”*
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2. Calculated Columns

- *“Add a calculated column called bill_area as bill_length_mm × bill_depth_mm.”*
 - *“Create a new column body_mass_kg by dividing body_mass_g by 1000.”*
 - *“Add a new column called SizeCategory that classifies penguins as ‘Light’, ‘Medium’, or ‘Heavy’ based on body_mass_g.”*
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3. PivotTables & Charts

- *“Insert a PivotTable showing average body_mass_g by species.”*
 - *“Create a PivotChart comparing body mass by species and sex.”*
 - *“Build a PivotTable showing average flipper_length_mm by island, then make a bar chart from it.”*
 - *“Make a line chart showing the average bill_length_mm by year for each species.”*
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4. Advanced Analysis with Python

- *“Use Python to create a scatter plot of bill_length_mm vs bill_depth_mm colored by species.”*
- *“Run a correlation analysis between body_mass_g, flipper_length_mm, and bill_length_mm.”*
- *“Cluster the penguins into 3 groups based on their numeric measurements and show the results in a plot.”*
- *“Fit a simple linear regression to predict body_mass_g from bill_length_mm and flipper_length_mm.”*

BONUS! Agent Mode

- *“Build a loan calculator that lets me input loan amount, annual interest rate, and term in years. Show the monthly payment, create an amortization table with month, payment, principal, interest, and ending balance. Format it cleanly.”*
- *“Take this table of budgeted and actual expenses by department. Build a report showing variances in dollars and percentages, highlight any variances greater than 10 percent, and create a summary dashboard with charts for executives.”*
- *“Using this trial balance data for September and August, prepare a financial close pack. Create P&L and Balance Sheet views with standard formatting, highlight account variances greater than 5 percent month over month, and produce a summary tab with KPIs and trend charts.”*