

Lesson 17: Working with Maps & Geocoding, Formatting & Annotations

Dataset: sales_with_geodata.csv

Part 1: Maps & Geocoding

Task 1: Create a Basic Map Showing Sales by Country

Use a Map visual. Place 'Country' in Location and [Total Sales] as Size. Power BI automatically geocodes country names using Bing Maps to place them on the map.

Task 2: Use Latitude and Longitude for Precise Mapping

Instead of relying only on country or city names, use the 'Latitude' and 'Longitude' columns. Assign Latitude to Latitude field and Longitude to Longitude field in the Map visual. This ensures accurate point placement.

Task 3: Plot Total Sales by City

In the Map visual, place 'City' in Location and [Total Sales] as Size. To avoid ambiguity with cities that exist in multiple countries, include both City and Country in the Location hierarchy.

Task 4: Create a Region-wise Sales Heatmap (Shape Map)

Use the Shape Map visual. Assign 'Region' to Location and [Total Sales] to Color saturation. This will display a heatmap, where colors represent sales magnitude across regions.

Task 5: Add Map Drill-Down from Country → Region → City

Build a location hierarchy: Country → Region → City. Enable drill-down in the Map visual so users can navigate from country-level view to detailed city-level data.

Part 2: Formatting & Annotations

Task 6: Customize Map Visual – Titles, Colors, and Labels

Format the Map visual by editing its Title, adjusting Data colors, and turning on Category labels for better readability.

Task 7: Use Conditional Formatting for Bubble Colors

Apply conditional formatting to bubble colors based on [Total Sales]. For example, use lighter colors for lower sales and darker colors for higher sales.

Task 8: Add Annotations to Highlight Key Cities

Highlight important cities by adding text boxes or Smart Narrative visuals. Alternatively, use measures (e.g., RANKX to find top city) and display them prominently.

Task 9: Create a Tooltip Page with Detailed Info

Create a new page, set it as a Tooltip page in Page Information. Add details like Category, Quantity, and Profit. When users hover over a city on the map, detailed information appears.

Task 10: Add a Slicer to Filter the Map by Category

Insert a Slicer visual and assign 'Category'. This allows users to filter the Map visual dynamically to show sales only for the selected category.

These tasks cover both the functional and formatting aspects of working with geospatial visuals in Power BI. Proper use of geocoding, hierarchy, formatting, and tooltips makes reports more interactive and insightful.