

Part 1: Maps & Geocoding

Task 1: Create a Basic Map Showing Sales by Country

1. Add a **Map visual**.
 2. Drag `Country` → **Location**.
 3. Drag `Sales` (measure) → **Size**.
👉 The bubbles will represent sales volume per country.
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Task 2: Use Latitude and Longitude for Precise Mapping

1. Ensure you have `Latitude` and `Longitude` columns.
 2. Add a **Map visual**.
 3. Drag `Latitude` → **Latitude field**.
 4. Drag `Longitude` → **Longitude field**.
 5. Drag `Sales` → **Size**.
👉 This avoids geo-mapping mistakes (like confusing Paris, Texas with Paris, France).
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Task 3: Plot Total Sales by City

1. Create measure:

```
Total Sales = SUM(Sales[Amount])
```

2. Add a **Map visual**.
 3. Drag `City` → **Location**.
 4. Drag `[Total Sales]` → **Size**.
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Task 4: Create a Region-wise Sales Heatmap (Shape Map)

1. Add a **Shape Map visual**.
 2. Drag `Region` → **Location**.
 3. Drag `Total Sales` → **Color saturation**.
 4. Choose appropriate map (world, Europe, US states, etc.).
👉 This shows sales intensity by region.
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Task 5: Add Map Drill-Down (Country → Region → City)

1. In your dataset, ensure hierarchy: `Country` → `Region` → `City`.
2. In the **Map visual**, drag hierarchy into **Location**.

3. Enable **Drill-down** (arrow on visual header).

☞ Now you can click to drill from Country → Region → City.

Part 2: Formatting & Annotations

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

- Use **Format pane** → customize title text, bubble colors, font size.
 - Toggle **Data labels** to show values.
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Task 7: Use Conditional Formatting for Bubble Colors

1. Select Map → Format → **Data colors**.
 2. Choose **Conditional formatting**.
 3. Apply rule (e.g., red if sales < 50K, green if sales > 200K).
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Task 8: Add Annotations to Highlight Key Cities

- Create a **Card visual** with city name and sales, overlay it on the map.
 - Or use **Smart Narratives** to auto-generate insights.
 - Alternatively, add **Shapes/Text boxes** with arrows pointing to high-sales cities.
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Task 9: Create a Tooltip Page with Detailed Info

1. Create a new **report page** → set as **Tooltip** in Page Information.
 2. Add visuals (Table with Sales by Category, Profit, etc.).
 3. Go back to Map → Format → **Tooltip** → enable **Report page tooltip**.
- ☞ Now hovering over a bubble shows detailed info.
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Task 10: Add a Slicer to Filter the Map by Category

1. Add **Slicer visual**.
 2. Drag `Category` column (e.g., Product Category).
 3. Connect slicer to **Map visual**.
- ☞ Now you can filter maps by category dynamically.