The step-by-step process to design an HR analytics dashboard in Power BI, focusing on creating KPIs, designing charts, and adding interactivity.

Steps to Create the Dashboard

1. Designing KPIs

1.1 Overall Employees (First KPI)

1. Select the **Card** from the visualization pane.
2. Drag the Employee Count field into the **Fields** section.
3. Adjust size and background:
    - Go to the **Format** pane > **Canvas Background** > Set color and transparency.
4. Customize the card:
    - Turn off the **Category Label**.
    - Go to **General** > **Title**, and update the title text (e.g., "Overall Employees"). Customize font, size, and alignment.
    - Under **Properties**, adjust height and width.
    - Add a border:
        - Go to **Effects** > **Border**. Set color and adjust corner rounding.
5. First KPI is ready.

1.2 Attrition (Second KPI)

1. Create a conditional column:
    - Go to **Add Column** > **Conditional Column**.
    - Name it Attrition Count and set the condition:
        - If Attrition = "Yes", then output 1; otherwise, 0.
    - Change the datatype of the Attrition Count column to **Whole Number**.
2. Drag the Attrition Count field into the card.

1.3 Attrition Rate (Third KPI)

1. Create a new measure:
    - Right-click on the HR Data table > **New Measure**.
    - Use the formula:

Attrition Rate = SUM('HR Data'[Attrition Count]) / SUM('HR Data'[Employee Count])

2. Drag the Attrition Rate field into the card and format it as a percentage.

1.4 Active Employees (Fourth KPI)

1. Create a new measure:

   Active Employees = SUM('HR Data'[Employee Count]) + SUM('HR Data'[Attrition Count])

2. Drag the Active Employees field into the card.

1.5 Average Age (Fifth KPI)

1. Drag the Age field into the card.
2. Change the aggregation to **Average** in the fields dropdown.
3. Format the decimal places to 0 in the **Callout Value** section.

2. Designing Charts

2.1 Pie Chart (Department-Wise Attrition)

1. Select the **Pie Chart** visualization.
2. Set the fields:
   - Legend: Department.
   - Values: Sum of Attrition Count.
3. Customize:
   - Change the title to "Department-Wise Attrition".
   - Adjust height, width, background, border, and font color.

2.2 Frequency Chart (Employees by Age Group)

1. Select the **Column Chart** visualization.
2. Set the fields:
   - X-Axis: CF_Age Band.
   - Y-Axis: Employee Count.
   - Legend: Gender.
3. Customize:
   - Sort by age band or employee count.

- To sort by age band, create a **Conditional Column** (Sort Age) and assign serial numbers to each age group.

2.3 Heat Map (Job Satisfaction Rating)

1. Select the **Matrix Chart** visualization.
2. Set the fields:
    - Rows: Job Role.
    - Columns: Job Satisfaction (Rating).
    - Values: Sum of Employee Count.
3. Customize:
    - Turn off **Row Subtotals**.
    - Apply background colors for a heat map effect in **Cell Elements**.

2.4 Bar Chart (Education Field-Wise Attrition)

1. Select the **Bar Chart** visualization.
2. Set the fields:
    - Y-Axis: Education Field.
    - X-Axis: Sum of Attrition Count.
3. Customize:
    - Turn off the X-Axis title.

2.5 Donut Charts (Attrition Rate by Gender and Age Group)

1. Select the **Donut Chart** visualization.
2. Set the fields:
    - Legend: Gender.
    - Values: Sum of Attrition Count.
    - Details: CF_Age Band.
3. Add filters:
    - Create five copies of the chart for different age groups:
        - Under 25, 25-34, 35-44, 45-54, Above 55.
    - Apply filters for each age group using the **Filter Pane**.
4. Add a small card with Attrition Count to the center of each donut chart.

3. Adding Filters and Interactivity

3.1 Title for Dashboard

- Add a **Text Box** and set the title as "HR Analytics Dashboard". Format as needed.

3.2 Slicer

- Add a slicer for Education and format it as horizontal.

3.3 Interactivity

- Enable interactivity:
    - Click on a chart, go to **Format** > **Edit Interactions**.
    - Set **Filter** or **Highlight** for other visuals.
    - Disable interactions if not required by unchecking the edit interactions option.