Detailed step-by-step guide to follow for building the Power BI dashboard for Blinkit

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1. Requirement Gathering / Business Understanding

- **Objective:** Conduct a comprehensive analysis of Blinkit's:
    - Sales performance
    - Customer satisfaction
    - Inventory distribution
    - Identify opportunities for optimization using KPIs and visualizations.

Key KPIs to Track:

1. Total Sales
2. Average Sales
3. Number of Items Sold
4. Average Rating

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2. Data Walkthrough

- Load and explore the dataset in Power BI.
- **Objectives:**
    - Understand the dataset structure, including:
        - Column names
        - Data types
        - Missing or invalid data
    - Identify relationships and fields for calculated columns/measures.

Example columns to expect in the dataset:

- Sales, Item Type, Fat Content, Outlet Size, Outlet Type, Rating, Outlet Establishment Year, etc.

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3. Data Connection

- Import the dataset into Power BI.
    - Source: Excel, CSV, SQL Database, or any other data source.
    - Use the **Home > Get Data** option.

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4. Data Cleaning / Quality Check (Power Query Editor)

- **Steps:**
    1. **Remove Empty Rows/Columns**: Filter out unnecessary data.
    2. **Handle Missing Values**: Use data imputation or remove null values.
    3. **Change Data Types**: Ensure columns like Sales (Currency), Rating (Decimal), etc., are assigned correct data types.
    4. **Filter Data**: Keep relevant rows/fields.
    5. **Transform Columns**:
        - Extract Year from the establishment date.
        - Split concatenated fields if any.
- Save these changes in the **Applied Steps** section.

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5. Data Modeling

- **Steps:**
    1. Create relationships between tables (if applicable).
       Example: Link Sales to Outlet and Item Type.
    2. Use **Star Schema** for efficient analysis.
    3. Define Primary and Foreign Keys.
    4. Ensure relationships are set to *One-to-Many* for better filtering.

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6. DAX Calculations

- Write custom measures to calculate KPIs:
    - **Total Sales**:
      Total_sales = SUM('BlinkIT Grocery Data'[Sales])
    - **Average Sales**:
      Average_sales = AVERAGE('BlinkIT Grocery Data'[Sales])
    - **Number of Items Sold**:
      No_of_Items = COUNTROWS('BlinkIT Grocery Data')
    - **Average Rating**:
      Average_ratings = AVERAGE('BlinkIT Grocery Data'[Rating])

Steps to Add:

1. Go to **Modeling > New Measure**.
2. Add the DAX formulas for each KPI.

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7. Dashboard Layout Setup

- Go to **View > Canvas Settings**:
    - Height: 800px
    - Width: 1400px
    - Alignment: Middle
    - Background: White, Transparency: 40%

Style Customization:

- Insert shapes (rounded tabs) for visual sections.
- Apply Blinkit's brand color palette:
    - Yellow: #FFD200
    - Green: (Complementary tones)
- Add app branding:
    - Insert **Text Box**: Write "Blinkit" as the title (no background).
    - Align text and position appropriately.

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8. Charts Development

- **Charts and Objectives:**
    1. **Donut Chart (Total Sales by Fat Content)**:
        - Add KPIs: Total Sales, Average Sales, Number of Items, Average Rating.
    2. **Bar Chart (Total Sales by Item Type)**:
        - Analyze item performance.
    3. **Stacked Column Chart (Fat Content by Outlet)**:
        - Compare total sales segmented by fat content.
    4. **Line Chart (Total Sales by Outlet Establishment Year)**:
        - Evaluate how the outlet's age impacts sales.

5. **Pie/Donut Chart (Sales by Outlet Size)**:
    - Analyze sales distribution across outlet sizes.
6. **Funnel Chart (Sales by Outlet Location)**:
    - Assess geographic sales performance.
7. **Matrix Card (All Metrics by Outlet Type)**:
    - Provide a breakdown of KPIs by outlet types.

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9. Formatting Visuals

- **Steps for Each Chart:**
    - Add titles, legends, and data labels.
    - Apply consistent colors (Yellow/Green tones).
    - Resize visuals to fit within the layout grid.
    - Set **Interactions** for cross-filtering between charts:
        - **Format > Edit Interactions > Filter**.

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10. Insights Generation

- Analyze charts to derive actionable insights:
    - Identify trends (e.g., highest/lowest sales by outlet or fat content).
    - Highlight underperforming areas for improvement.

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11. Final Touches

- Add slicers for easy filtering:
    - **Slicers**: Outlet Location, Outlet Size, Item Size.
    - Adjust interactions between visuals.
- Export and publish the dashboard:
    - Save the file as .pbix.
    - Publish to Power BI Service for sharing.

Additional Notes:

- Keep a **Metrics Slicer** to toggle between KPIs like Total Sales, Average Sales, etc.
- Use **Bookmarks** for switching between dashboard views.
- Perform a **Data Refresh Test** to ensure the dataset updates dynamically.