

5. Dashboard Design

Date	05 Oct 2025
Team ID	XXXXXX
Project Name	Analysis and Visualization of Global Food Production Data (1961–2023)
Maximum Marks	5 Marks

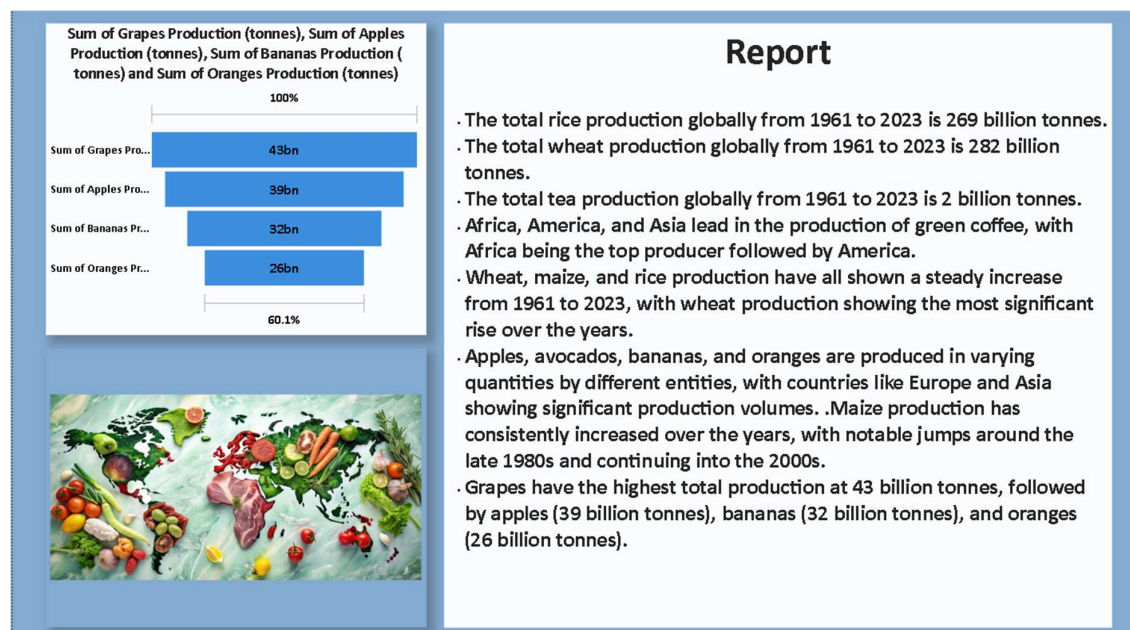
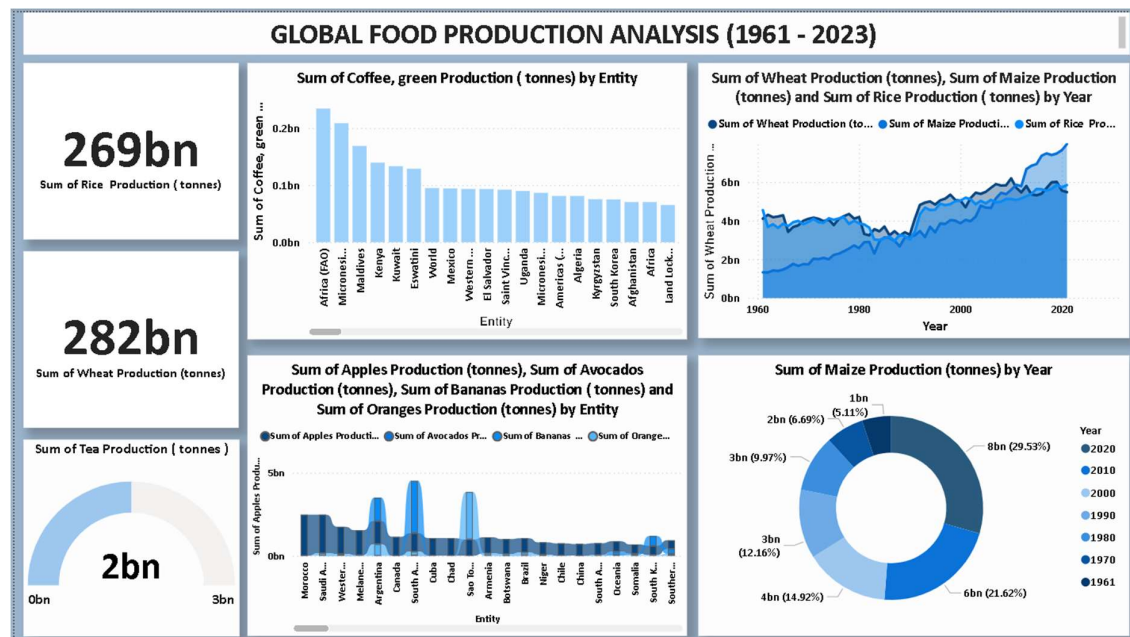
Creating an effective dashboard involves thoughtful design to ensure that the presented information is clear, relevant, and easily understandable for the intended audience. Here are some key principles and best practices for dashboard design

5.1. Interactive and visually appealing dashboards

Activity 1:

The **Global Food Production Dashboard (1961–2023)** was designed using **Power BI**, following best practices for clarity and interactivity:s

- **Clear and Intuitive Layout:** Dashboard structured into sections for cereals, beverages (tea/coffee), and fruits for smooth navigation.
- **Use of Appropriate Visualizations:** KPI cards, gauge charts, area charts, donut, funnel, and ribbon charts selected based on the type of insights required.
- **Colour and Theming:** Used consistent, contrasting colours to distinguish between commodities and regions.
- **Interactive Filters and Slicers:** Year and Region slicers allow users to filter data dynamically.
- **Drill-Down Capabilities:** Users can drill into specific regions or commodities to explore details.
- **Responsive Design:** Layout optimized for multiple screen sizes.
- **Custom Visuals and Icons:** Ribbon and funnel charts used to enhance storytelling.
- **Use of Infographics:** Visual elements highlight key KPIs (total wheat, rice, tea, etc.) at a glance.



Major Outcomes from the Dashboard

1. **Rice Production:** A KPI card highlights **269 billion tonnes** of rice produced globally between 1961 and 2023, underlining rice as a critical staple food.
2. **Wheat Production:** A KPI card displays **282 billion tonnes** of wheat production, showing its dominance in global agriculture.

3. **Tea Production:** A gauge chart reveals **2 billion tonnes**, reflecting its smaller but significant contribution.
4. **Coffee Production by Region:** A line chart shows that **Africa leads in green coffee production**, followed by Asia and America.
5. **Cereal Trends:** An area chart highlights the steady rise in wheat, maize, and rice production, with wheat showing the sharpest increase.
6. **Fruit Distribution:** A ribbon chart compares apples, avocados, bananas, and oranges across regions, showing **Europe and Asia as top contributors**.
7. **Maize Growth:** A donut chart emphasizes maize's consistent growth, especially after the late 1980s.
8. **Fruit Leaders:** A funnel chart compares grapes (**43B tonnes**), apples (**39B tonnes**), bananas (**32B tonnes**), and oranges (**26B tonnes**), revealing grapes as the top fruit globally.