SDG 6: Focusing on Clean Water and Sanitation

This presentation explores the critical goals of SDG 6, which aims to ensure the availability and sustainable management of water and sanitation for all. We will dive into data-driven insights to understand the global challenges and identify solutions to improve access to clean water and sanitation.

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Project Overview

1 Objective

To analyze and visualize data related to SDG 6, with the goal of improving access to clean water and sanitation.

2 Scope

Data-driven insights on water quality, access, and sanitation facilities, focusing on specific regions or global trends.

3 Methodology

Leveraging a robust database design and advanced data analysis techniques to uncover meaningful insights.

SDG 6 Alignment

1 **SDG 6 Goals**

Ensure availability and sustainable management of water and sanitation for all.

2 **Relevance**

Addressing global water crises, promoting equitable access, and enhancing sanitation infrastructure.

3 **Impact**

Improving public health, reducing poverty, and driving sustainable development.

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Problem Definition

The Problem

Insufficient access to clean water and sanitation in many regions, leading to health issues and socio-economic disparities.

Significance

Understanding and addressing these issues is crucial for improving public health, reducing poverty, and promoting sustainable development.

Database Design

Overview

Relational database designed to store and manage SDG 6-related data.

Key Tables

- Water Quality: Metrics like pH, contaminants, and source.
- Access: Population percentages with water and sanitation access.
- Infrastructure: Information on water treatment facilities.

Schema Explanation

The schema supports efficient data analysis and reporting, enabling a comprehensive understanding of water and sanitation challenges.

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Database Schema Visualization
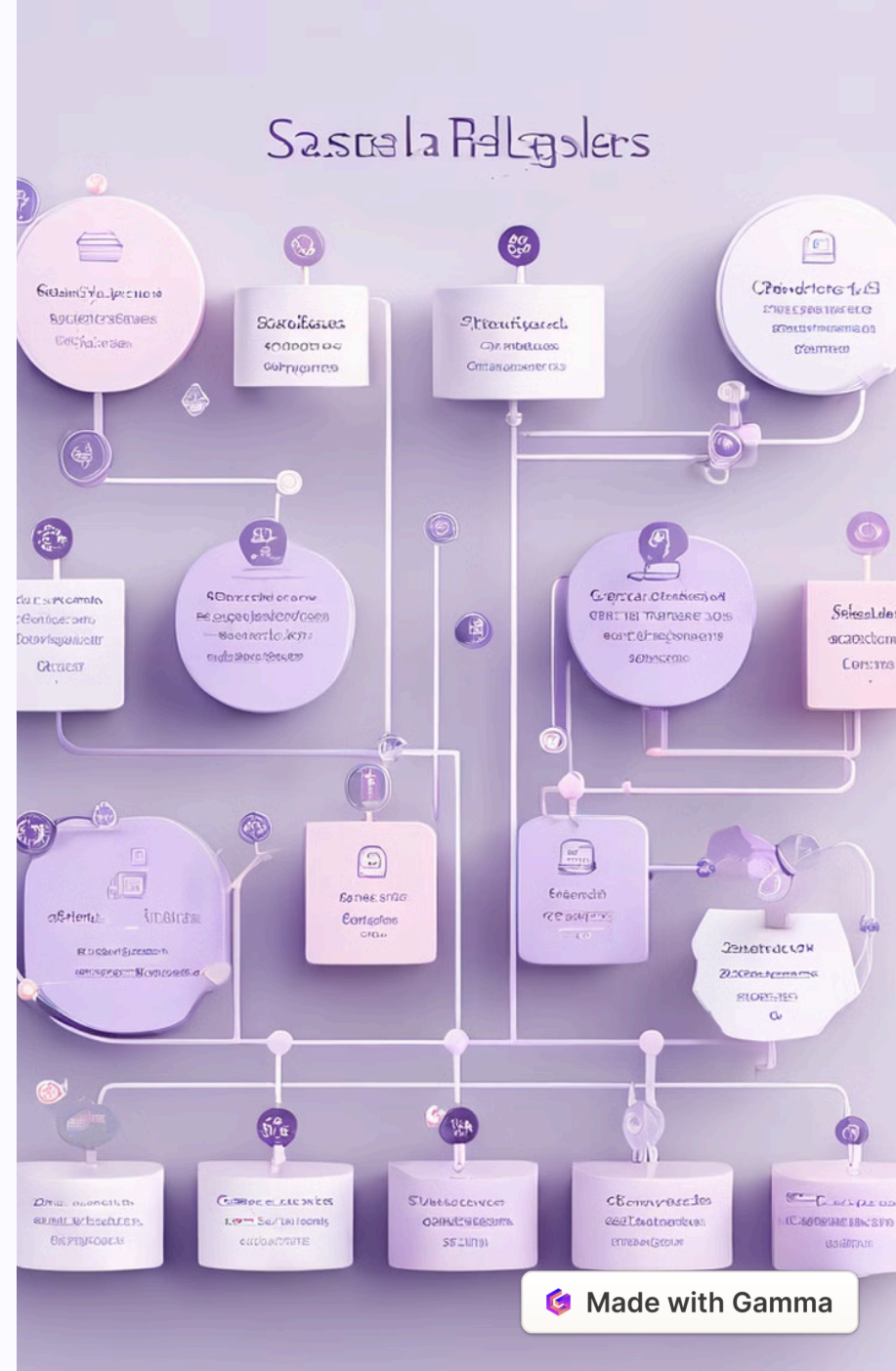
1   Tables

The schema includes tables for water quality, access, and infrastructure data.

2   Relationships

The tables are interconnected, allowing for cross-referencing and comprehensive analysis.

3   Key Fields

The schema incorporates essential data points, such as contaminant levels, population statistics, and facility details.

Key Data Analysis Insights

Insight 1

Regions with the highest water contamination rates, highlighting the urgent need for water treatment and purification efforts.

Insight 2

Correlation between sanitation infrastructure investment and improved health outcomes, underscoring the importance of equitable access to sanitation facilities.

Insight 3

Trends in access to clean water over the past decade, revealing both progress and persistent challenges in achieving universal water access.

Excel Dashboard Overview

Visualizations

Comprehensive charts, graphs, and data tables for clear data communication.

Interactivity

Intuitive filters and drill-down capabilities to explore data at different levels.

Flexibility

Ability to refresh and update data, ensuring the dashboard remains current and relevant.

Excel Dashboard Demonstration

Navigation

1

Seamless navigation through the dashboard's various sections and visualizations.
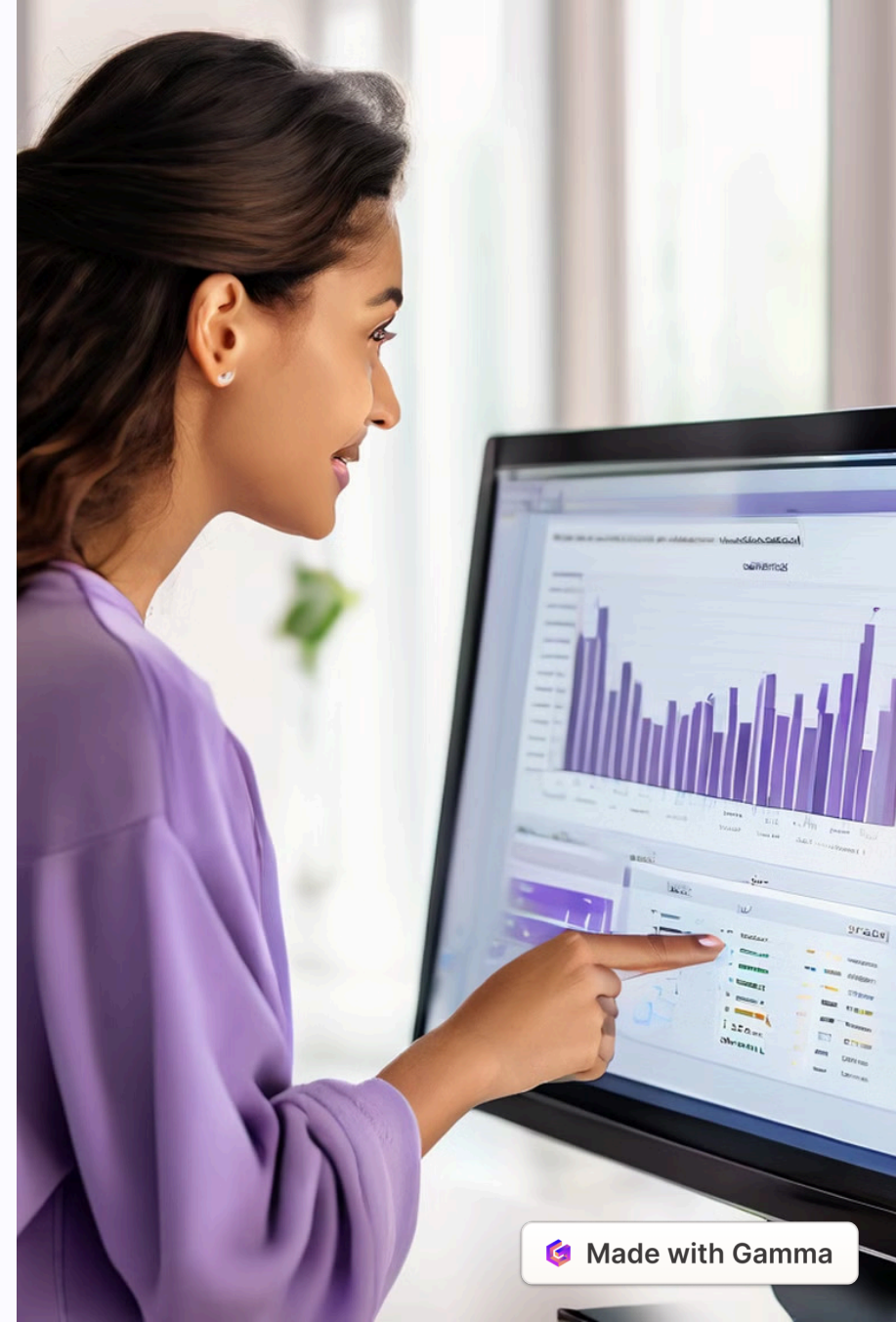
Filtering

2

Applying filters to focus on specific regions, time periods, or data attributes.

Insights

3

Identifying key insights and trends through the interactive data exploration.

Conclusion and Next Steps

1 **Summary**

The project has provided valuable insights to understand and address the challenges related to SDG 6, empowering stakeholders to make informed decisions.

2 **Next Steps**

Suggestions for further analysis, potential improvements to the database, and ways to expand the dashboard's capabilities, driving continued progress towards SDG 6 goals.