Functional Requirements Document (FRD)

Project Name: WaterTrack App

1. Introduction

Purpose:

This document outlines the functional requirements of the WaterTrack App, a hydration monitoring platform designed to analyze user engagement and daily water intake. It aims to provide insightful visualizations for health tracking.

Scope:

The application supports users in tracking their water intake, understanding consistency trends, and identifying areas for improvement through data dashboards and personalized feedback.

2. System Overview

The WaterTrack App enables users to:

- Log daily water consumption.
- Set personal hydration goals.
- Track consistency over time (streak vs. missed days).
- Analyze patterns by age and gender.
- View aggregated insights via interactive dashboards.

3. Business Requirements

- Provide personalized hydration insights for users.
- Improve user engagement with visual feedback (e.g., streaks).
- Support public health initiatives by analyzing hydration patterns.
- Identify segments that underperform (e.g., age groups missing goals).
- Offer actionable metrics to promote consistent behavior.

4. Functional Requirements

ID	Requirement
FR1	The system shall allow users to input daily water intake.
FR2	The system shall store data including Age, Gender, Daily Goal, Missed Days, etc.
FR3	The system shall calculate and display average water intake by age group.
FR4	The system shall show goal completion statistics based on daily targets.
FR5	The dashboard shall include gender-wise user distribution.
FR6	The system shall calculate streaks and missed days for each user.
FR7	The system shall display a KPI card showing average intake across users.
FR8	The app shall support filters for slicing data by UserID, Age, or Gender.

5. User Roles and Permissions

Role	Access Level
Admin/Analyst	Full access to all dashboards, filtering, and data source configuration.
User (End-User)	View only insights relevant to their intake and goals (if implemented).

6. Use Case Example

Title: Monitor User Hydration Trend

Actors: Data Analyst, System

Steps:

1. Analyst loads the dashboard in Power BI.
2. Filters are applied to narrow down users by age or goal.
3. Visuals update to reflect intake trends, streaks, and missed days.
4. Insights are exported or shared with stakeholders.

7. Non-Functional Requirements

- The dashboard shall load within 3 seconds under normal load.
- The application shall support viewing on desktops and tablets.
- The system shall ensure 99.9% uptime for real-time dashboards.
- Data shall refresh daily using scheduled refresh or live connection.

8. Assumptions and Constraints

Assumptions:

- Users log their intake regularly and honestly.
- Age and gender data are accurately recorded.
- Admin users understand Power BI interface.

Constraints:

- Limited to datasets under Power BI's free tier limits unless Pro licenses are used.
- Integration with health tracking devices or apps is not available in the current phase.
- The dashboard currently supports only English language.