Data Collection and Preprocessing Phase

Date	10 July, 2024
Team ID	SWTID1720173354
Project Title	Gemini Health Application
Maximum Marks	2 Marks

Data Quality Report Template

The chosen source's data quality problems, together with their degrees of severity and proposed solutions, will be included in the Data Quality Report Form. It will help find and fix data inconsistencies in a methodical manner.

This template outlines potential data quality issues that might arise within Nutritionist AI, a mobile application leveraging Gemini Pro for personalized dietary recommendations. It specifies the data source, identifies the issue, assigns a severity level, and proposes a resolution plan for each issue.

Data Source	Data Quality Issue	Severity	Resolution Plan
User-Entered Food Intake Data	Inaccuracy due to estimation, missing details (e.g., cooking method, portion size)	High	- Implement image recognition for food intake using the Gemini Pro model. - Allow users to select portion sizes from standardized options (e.g., cups, grams) alongside image capture. - Offer a searchable food database with options to specify cooking methods and ingredients.

Dietary Preferences	Incompleteness (e.g., missing information about allergies, intolerances, dislikes)	Medium	- During onboarding, employ a multi-step questionnaire to gather detailed dietary preferences, including allergies, intolerances, and dislikes. - Allow users to update and refine their preferences over time.
Health Goal Selection	Ambiguity (e.g., "weight loss" without target weight or timeframe)	Medium	- Provide a guided selection process for health goals, prompting users to specify desired outcomes with measurable targets (e.g., lose 5 kg in 3 months). - Offer educational resources explaining different health goals and their implications for dietary needs.
Self-Reported Health Data	Inaccuracy due to user bias or limited medical knowledge	High	- Disclaim that the app is not a substitute for professional medical advice. - Encourage users to consult with healthcare providers before making significant dietary changes. - Integrate with wearable devices (with user consent) to import health data for a more holistic

			picture.
Third-Party Nutritional Data (e.g., food databases)	Inconsistency or errors	Medium	- Implement data validation techniques to compare nutritional information with reliable sources (e.g., USDA database). - Allow users to flag inconsistencies and provide feedback for data refinement. - Regularly update the app with the latest nutritional information.