Data Collection and Preprocessing Phase

Date	10 July, 2024
Team ID	SWTID1720173354
Project Title	Gemini Health Application
Maximum Marks	6 Marks

Nutritionist AI: Data Preprocessing for Personalized Nutrition

Nutritionist AI leverages the capabilities of Gemini Pro, a state-of-the-art AI model, to create individualized dietary recommendations grounded in user-specific data. This data encompasses a variety of formats, necessitating preprocessing steps to guarantee its quality and efficient use by the AI model.

A variety of preprocessing techniques will be used on the photos, including cropping, batch normalizing, whitening data, detecting edges, altering contrast, normalizing, augmenting, and denoising. Through the improvement of data quality, model generalization, and convergence during neural network training, these procedures will guarantee reliable and effective performance on a range of computer vision tasks.

Section	**Description**
Data Overview	• Recognizing the characteristics of the data is the first step. This involves figuring out any missing values, outliers, and different data formats (numerical, categorical, and text). • Analyzing data distribution is essential for elements such as user demographics, dietary preferences, health objectives, and food consumption's nutritional information.
Image Cropping	• Furthermore, by cropping the images, superfluous background information may be eliminated, directing the AI's attention towards the dish itself
Data Preprocessing Code Screenshots	

Loading Data	
Image Cropping