

**PROJECT DESIGN PHASE – II**

**SOLUTION REQUIREMENTS (FUNCTIONAL & NON – FUNCTIONAL)**

Date	16 October 2022
Team ID	PNT2022TMID49087
Project Name	AI Powered Nutrition Analyzer for Fitness Enthusiasts
Maximum Marks	4 Marks

**FUNCTIONAL REQUIREMENTS:**

FR NO.	Functional Requirement	Sub Requirement
FR-1	User Registration	Registration through Form Registration through Gmail Registration through LinkedIn
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	Image Acquisition	Capture the Image and Check the Top and Side View of Image.
FR-4	Object Detection	Get a series of Bounding Boxes, which means objects are located.
FR-5	Image Segmentation	Get a series of food images stored in matrix with values of background pixels replaced by zeros.
FR-6	Volume Estimation	To estimate the volume, calculate the scale factors on calibration objects.
FR-7	Calorie Estimation	After estimating the volume, the next step is to estimate each food's mass.

## NON-FUNCTIONAL REQUIREMENTS:

FR NO.	Non-Functional Requirements	Description
NFR-1	<b>Usability</b>	Informs you how nutrient dense your food is.
NFR-2	<b>Security</b>	The information is visible to user only and image was secured highly.
NFR-3	<b>Reliability</b>	The food packages are important for calculate the calories
NFR-4	<b>Performance</b>	It is based on the package of food used for the calorie calculation
NFR-5	<b>Availability</b>	It is available for all users to calculate the calorie of the foods
NFR-6	<b>Scalability</b>	Increasing the calculation of the calorie in foods.