

Project Design Phase-II
Solution Requirements (Functional & Non-functional)

Date	27 October 2022
Team ID	PNT2022TMID14614
Project Name	AI-Powered Nutrition Analyzer for Fitness Enthusiasts
Maximum Marks	4 Marks

Functional Requirements:

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	Create custom dataset	Pre-trained COCO model
FR-2	Image annotation	ImgBox
FR-3	Building the model	1.Mask Region based-Convolutional Neural Network(Mask R-CNN) 2.Instance segmentation 3.Weight of food= volume*density
FR-4	API analysis	Edamam's proprietary NLP
FR-5	Designing Application	Android studio, Jupyter notebook, Collab

Non-functional Requirements:

Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	It is handy and easily accessible.
NFR-2	Security	The application is very secure because it can be opened only by its login credentials.
NFR-3	Reliability	It is convenient and can be changed as per user requirement.
NFR-4	Performance	Time taken to analyse the food by its texture and weight.
NFR-5	Availability	It is available all time.
NFR-6	Scalability	It can handle a large increase in users, workload or transactions without undue strain.