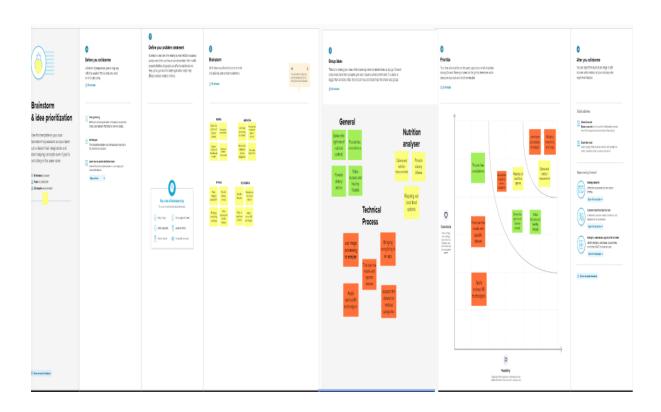| TEAM ID	PNT2022TMID19729
PROJECT NAME	AI Powered Nutrition Analyser for Fitness Enthusiasts

PHASE 1:

Ideation Phase:

1.Brainstorm and ideation

2.Empathy Map

3.Literature Survey

1.Brainstorm and Ideation:

2.Empathy Map:

What do they THINK AND FEEL?
what really counts
major preoccupations
worries & aspirations

- Need industry standard Nutritionist
- Nutrition apps are not friendly
- Still want to have a trainer
- Anxious to use fitness app
- Will not give you expected results
- We have to pay more for nutritionist
- When I do not see the results,I'm not motivated to do them.
- Workout details are not upto the standards
- Blogs and recipes

What do they HEAR?
what friends say
what boss say
what influencers say

- These are waste of time
- We are not aware of proper diet

- Ads in the market
- I always use youtube to find a new diet plan or to know how to prepare a diet plan

What do they SEE?
environment
friends
what the market offers

- Ads in the market

What do they SAY AND DO?
attitude in public
appearance
behavior towards others

- I want to do workout from home
- I'm shy and don't like to ask other people to give me a diet plan
- I want industry standard workout
- Logged into a fitness app
- Browses and explores the workout routine
- Tries to do workout routine at home

PAIN
fears
frustrations
obstacles

- Is it efficient?
- Does it affect my routine life?
- We don't find a reasonable nutritionist

GAIN
"wants" / needs
measures of success
obstacles

- I want trainer on my mobile
- Comfortable and confident
- Get proper nutrition analyst
- diet plans based on individual health

RK

3.Literature Survey:

LITERATURE SURVEY

SNO	TITLE OF THE PAPER	NAME OF THE JOURNAL	AUTHOR	YEAR OF PUBLISHING	ACHIEVEMENTS	DRAWBACKS
1.	A New Deep Learning-based Food Recognition System for Dietary Assessment on An Edge Computing Service Infrastructure	IEEE	Chang Liu, Yu Ca, Yan Luo, Guanling Chen, , Vinod Vokkarane, Yunsheng Ma, Songqing Chen.	2017	Reduces response time that is equivalent to the minimum of the existing approaches and lowering energy consumption.	Much larger data sets are needed to provide convincing evidence to verify the efficacy and effectiveness of the proposed system.
2.	ArCycleGAN: Improved CycleGAN for Style Transferring of Fruit Images	IEEE	Hui Li,Mengxi Guan, Hongqian Chen	2021	CycleGAN, which can generate fruit images with specified freshness while maintaining the shapes and main features of the fruit in input source images.	The adaptive adjustment capabilities of network parameters can be improved.
3	Towards Eating Habits Discovery in Egocentric Photo-Streams	IEEE	Alina Matei ,Andreea Glavan,Petia Radeva, Estefania Talavera	2021	Automatic discovery of nutritional routine from unseen egocentric photo-streams.	Implementation of the proposed system is not as efficient as in paper .
4	Artificial Intelligence in Nutrients Science Research: A Review	MDPI	Jarosław Sak, Magdalena Suchodolska	2021	A total of 399 records published between 1987 and 2020 were obtained and reviewed with great care and final report was submitted.	We cannot rely completely on this review paper and come to a conclusion.
5	Precision Nutrient Management Using	MDPI	Hsiu-An Lee , Tzu-Ting Huang , Lo-Hsien Yen , Pin-Hua Wu,	2022	Proposes an Intelligence Precision Nutrient	Here is not yet a complete set of publicly available data on

	Artificial Intelligence Based on Digital Data Collection Framework		Kuan-Wen Chen , Hsin-Hua Kung , Chen-Yi Liu, Chien-Yeh Hsu		Analysis Model based on a digital data collection framework, where the nutrient intake was analyzed by entering dietary recall data.	food nutrient ingredients.More complete data and references on micro-nutrients should be available in the future.
6	A Systematic Literature Review of Machine Learning Techniques Deployed in Agriculture: A Case Study of Banana Crop	IEEE	Amit Prakash Singh; Priyanka Sahu; Anuradha Chug; Dinesh Singh	2022	The study has been carried out to perform a systematic literature review of research papers that deployed machine learning (ML) techniques in agriculture, applicable to the banana plant and fruit production.	The available frameworks are not robustly constructed.