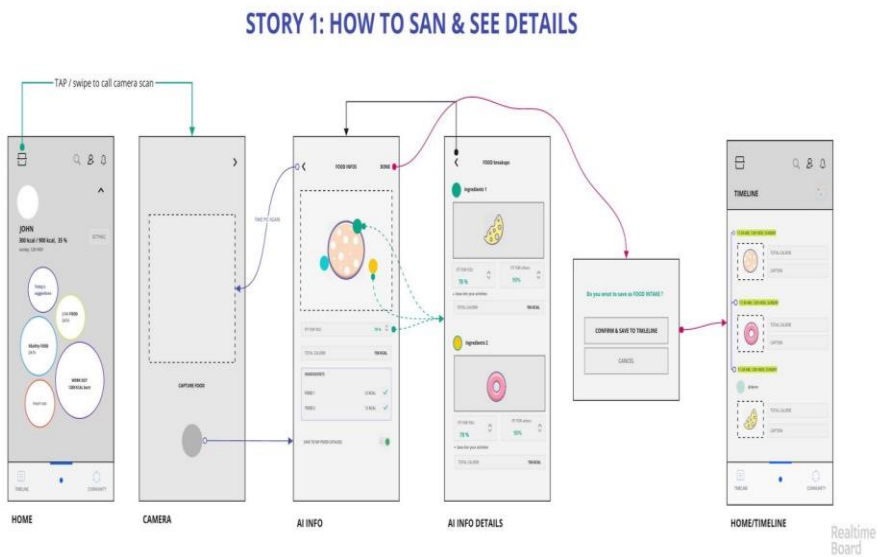
Project Design Phase-II
Technology Stack (Architecture & Stack)

Date	03 October 2022
Team ID	PNT2022TMID10879
Project Name	AI-Powered Nutrition Analyzer for Fitness Enthusiasts
Maximum Marks	4 Marks

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2



Guidelines:

1. Include all the processes (As an application logic / Technology Block)
2. Provide infrastructural demarcation (Local / Cloud)
3. Indicate external interfaces (third party API's etc.)
4. Indicate Data Storage components / services
5. Indicate interface to machine learning models (if applicable)

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	By web UI, the user interacts with the web application and fulfill the user requirements with good user experience	HTML, CSS, JavaScript / Angular Js / React Js etc.
2.	Application Logic-1	User register themselves and once logged in, given with various features	Java / Python
3.	Application Logic-2	The user may post photo of the food/fruits they want to eat	IBM Watson STT service
4.	Application Logic-3	Nutritional Information and further fitness instructions are suggested to the user	IBM Watson Assistant
5.	Database	Data Type etc.	MySQL, NoSQL, etc.
6.	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloudant etc.
7.	File Storage	File storage requirements.	Other storage services or Local file system.
8.	External API-1	To validate the user.	UserID API.
9.	External API-2	To validate the photo uploaded by the user.	Microsoft visual object tagging tool.
10.	Machine Learning Model	To classify the food/fruits by validating the photo.	Object Recognition Model, etc.
11.	Infrastructure (Cloud)	Application Deployment on Cloud Cloud Server Configuration : Cloudant DB	Local, Cloud Foundry, Kubernetes, etc.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used: Python	Python
2.	Security Implementations	It is secured because each user will have specified account and only they can access it.	SHA-256.
3.	Scalable Architecture	It is scalable and update process in the website and website does not affect the actual web page and user information.	
4.	Availability	Can be available for any time. If any of the page experience the problems must	
5.	Performance	The site will be loaded within 7 seconds that access the website using the Wi-Fi.	