

# MAJOR / MINOR PROJECT ABSTRACT [Form - 1] (YEAR - 2022-23)

NAME OF LAB COORDINATOR: Ms. Sanju Choudhary

TITLE OF PROJECT: Develop and Deploy an Application for Nutrition Assistant

PROJECT TRACK: (Tick the appropriate one / ones)

<input checked="" type="checkbox"/> 1. R&D (Innovation)	<input type="checkbox"/> 2. CONSULTANCY (Fetched from Industry)	<input type="checkbox"/> 3. STARTUP (Self-Business Initiative)	<input type="checkbox"/> 4. PROJECT POOL (From IBM / INFOSYS)	<input type="checkbox"/> 5. HARDWARE / EMBEDDED
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## BRIEF INTRODUCTION OF PROJECT:

This project aims at building a web App that automatically estimates food attributes such as ingredients and nutritional value by classifying the input image of food. This application follows an AI Driven Model to detect & identify nutrition values.

## TOOLS / TECHNOLOGIES TO BE USED:

NAME OF TOOL / TECHNOLOGY	VERSION	SOFTWARE / HARDWARE	PURPOSE OF USE
Streamlit	1.22	Software	Interactive User Interfaces
Flask	2.3.2	Software	Back-end or server side programmes.
Kaggle DB		Software	Database of users
Tensorflow	3.7	Software	Developing AI Model

## PROPOSED PROJECT MODULES:

NAME OF MODULE	PROPOSED FUNCTIONALITY IN PROJECT
Create Account (Authentication)	For creating account on server
Assistant Module	Recommends nutritional food for particular diseases
BMI Calculation Module	Calculate BMI according to height & weight
User Interface	Visualisation of different module functionalities
Weight loss & weight gain calculator	Calculates user's weight on different parameters
Image Recognition	Budget food from image and defines its nutritional values.

## TEAM MEMBER DETAILS:

STUDENT NAME	CLASS & GROUP	MOBILE No.	EXPERTISE AREA	ROLE IN PROJECT
Devanshu Sani	81TB-612	8952039956	Streamlit	Front-End
Rishabh Barcha	81TB-612	9352649119	Python	Back-End
Rishabh Sharma	81TB-612	8094540072	Python	Back-End
Ritik Choudhary	81TB-612	8058403466	Streamlit	Front-End

- NOTE:** 1. This form is to be submitted by a team of maximum 4 students in the starting of semester to lab coordinator.  
2. Students must keep a Xerox copy of this form as reference for project work and attach it to final report.



# ROLE SPECIFICATION OF TEAM MEMBERS [Form - 2]

MEMBER 1 <u>Rishabh Panchal</u>		HANDLING MODULE <u>Python (Backend)</u>	
NAME OF ACTIVITY	SOFT DEADLINE DATE	HARD DEADLINE DATE	DETAILS OF ACTIVITY (STORY)
Requirement Gathering	09/01/2023	23/01/2023	Research, Market analysis
Designing (Backend and DB)	23/01/2023	13/02/2023	Designed database for user authentication
Working on ML Model & dataset	13/02/2023	16/04/2023	Used Kaggle Food's vegetable dataset to train model using tensorflow
Testing	16/04/2023	02/05/2023	Testing of the ML model

  

MEMBER 2 <u>Rituik Sharma</u>		HANDLING MODULE <u>Python (Frontend &amp; Backend)</u>	
NAME OF ACTIVITY	SOFT DEADLINE DATE	HARD DEADLINE DATE	DETAILS OF ACTIVITY (STORY)
Requirement Gathering	09/01/2023	23/01/2023	Research, Market analysis
Designing (Backend and DB)	23/01/2023	13/02/2023	Designed the methods used in the backend to fetch data from DB
Working on ML Model and dataset	13/02/2023	16/04/2023	Used Kaggle Food's vegetable dataset to train model using tensorflow
Testing	16/04/2023	02/05/2023	Testing of the method used to fetch the data from ML model

  

MEMBER 3 <u>Ranabhu Soni</u>		HANDLING MODULE <u>Python (Frontend)</u>	
NAME OF ACTIVITY	SOFT DEADLINE DATE	HARD DEADLINE DATE	DETAILS OF ACTIVITY (STORY)
Requirement Gathering	09/01/2023	23/01/2023	Research & Market analysis
Designing of UI and UX	23/01/2023	23/03/2023	Designed the front page of BMI, Assistant, weight gain & weight loss
Testing	23/03/2023	16/04/2023	Testing of UI & UX component
Documentation	16/04/2023	04/05/2023	Created UML diagrams and SRS documentation

  

MEMBER 4 <u>Ritik Chaurasiya</u>		HANDLING MODULE <u>Python (Frontend)</u>	
NAME OF ACTIVITY	SOFT DEADLINE DATE	HARD DEADLINE DATE	DETAILS OF ACTIVITY (STORY)
Requirement Gathering	09/01/2023	23/01/2023	Research & Market analysis
Designing of UI and UX	23/01/2023	23/03/2023	Designed the front page of Home page, contact & Nutrition chart
Testing	23/03/2023	16/04/2023	Testing of UI & UX component
Documentation	16/04/2023	04/05/2023	Created SRS and Functional Requirements gathering

MENTOR'S NAME & SIGNATURE

Dr. Smita Gupta 11/5/23

- NOTE:**
1. This form is to be submitted by a team of maximum 4 students in the starting of semester to lab coordinator.
  2. Every member student must keep a Xerox copy of this form as reference for his / her part in project work.
  3. Students must provide the detailed list of planned activities along with their completion deadline dates.
  4. The lab coordinator will check the weekly progress of student against the information provided in this form.



**Form-3**  
**PROJECT WEEKLY STATUS MATRIX (FOR PROJECT MENTORS)**

NAME OF STUDENT - 2		Devanshu Soni		
NAME OF PROJECT		Develop and Deploy an App for Nutrition Assistant		
OTHER TEAM MEMBERS		1. Richabh Pandey 3. Ritvik Sharma 4. Ritvik Chaudhary		
WEEK (TO-FROM)	WORKING ON MODULE	PROGRESS ACHIEVED	COMMENTS	MARKS (X / 10)
14 Jan 2023	Structuring	Structuring baseline & scope		
19 Jan 2023	Structuring	Setup basic docs i.e. SRS		5
24 Jan 2023	Structuring	Working on application flows	Changes in ER-diagram.	
5 Feb 2023	Layout	Basic layout of application		5
16 Feb 2023	Module	Navbar context for whole application		5
24 Feb 2023	Navbar	Implementing BMI calculator		5
1 Mar 2023	BMI Calculator	Implementing logic for gain & loss		6
24 Mar 2023	Calculator	Implementing logic for gain & loss		
TOTAL WEEKS	MODULE COMPLETED (YES / NO)	OVERALL PROGRESS (POOR / AVG / GOOD)	OVERALL COMMENT (POOR / AVG / GOOD)	PERCENTAGE MARKS ESTIMATE
	YES	AVG	AVG.	
LAB COORDINATOR's remarks & Signature _____				

- NOTE:** 1. This form is to be maintained in a file by lab coordinators for student - 2 of the team to track his / her progress.  
2. Lab coordinators must cross check and evaluate the PROGRESS ACHIEVED + it's DOCUMENTATION by student against the work done by student and note their own comments about student's performance.  
3. The lab coordinator must evaluate student's work for every lab from a score of 10 points.  
4. The lab coordinator must compute average of these points at the end of semester to draw an estimate of the PERCENT MARKS to be awarded to the student for his / her performance.  
5. The lab coordinator must IMMEDIATELY CONTACT MENTOR FACULTY of student in case of POOR PERFORMANCE or 2 CONTINUOUS ABSENCE from lab.  
6. In case of absence, 00 / 10 MARKS will be awarded if the mentioned work is not presented in next lab by student.



**Form-3**  
**PROJECT WEEKLY STATUS MATRIX (FOR PROJECT MENTORS)**

NAME OF STUDENT - 1		Rishabh Panchal		
NAME OF PROJECT		Develop and Deploy an application for Nutrition Assistant		
OTHER TEAM MEMBERS		2. Ritik chowdhary 3. Ritwik Sharma 4. Devanshu Soni		
WEEK (TO-FROM)	WORKING ON MODULE	PROGRESS ACHIEVED	COMMENTS	MARKS (X / 10)
15/01/23	Documentation	Gathered req. for the ML model of image prediction		5
24/01/23	Nutrition checks	Created module to get recommended fruit nutrition values	Suggested changes in abstract	5
4/01/23	Nutrition check	Testing of image recognition function - nalties.		5
3/03/23	Unit testing	Performed unit testing on different modules		6
3/3/23	ML model	worked upon ML recognition model.		6
TOTAL WEEKS	MODULE COMPLETED (YES / NO)	OVERALL PROGRESS (POOR / AVG / GOOD)	OVERALL COMMENT (POOR / AVG / GOOD)	PERCENTAGE MARKS ESTIMATE
	YES	AVG	AVG	
LAB COORDINATOR's remarks & Signature _____				

- NOTE:**
1. This form is to be maintained in a file by lab coordinators for student - 1 of the team to track his / her progress.
  2. Lab coordinators must cross check and evaluate the PROGRESS ACHIEVED + it's DOCUMENTATION by student against the work done by student and note their own comments about student's performance.
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  4. The lab coordinator must compute average of these points at the end of semester to draw an estimate of the PERCENT MARKS to be awarded to the student for his / her performance.
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  6. In case of absence, 00 / 10 MARKS will be awarded if the mentioned work is not presented in next lab by student.



## Form-3

## PROJECT WEEKLY STATUS MATRIX (FOR PROJECT MENTORS)

NAME OF STUDENT - 3		Ritik Chaurasiya		
NAME OF PROJECT		Develop and Deploy An application for Nutrition Ass.		
OTHER TEAM MEMBERS		1. Rishabh Panchal 2. Ritvik Sharma 4. Dhanu Soni		
WEEK (TO-FROM)	WORKING ON MODULE	PROGRESS ACHIEVED	COMMENTS	MARKS (X / 10)
15 Jan 2023	Structuring	Structuring base line & Scope		5
20 Jan 2023	Structuring	Setup basic data & i-ess		
25 Jan 2023	Structuring	Working on application.		5
6 Feb 2023	Contact Page	Contact Page Structure and information of user.		
25 Feb 2023	Home Page	Create Home Page and Basic Structure of it.		5
3 Mar 2023	Assistant	Create Assistant for get information of user.		6
8 May 2023			changes in formatting of report	
TOTAL WEEKS	MODULE COMPLETED (YES / NO)	OVERALL PROGRESS (POOR / AVG / GOOD)	OVERALL COMMENT (POOR / AVG / GOOD)	PERCENTAGE MARKS ESTIMATE
	YES	AVG	AVG.	
LAB COORDINATOR's remarks & Signature _____				

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 2. Lab coordinators must cross check and evaluate the PROGRESS ACHIEVED + it's DOCUMENTATION by student against the work done by student and note their own comments about student's performance.  
 3. The lab coordinator must evaluate student's work for every lab from a score of 10 points.  
 4. The lab coordinator must compute average of these points at the end of semester to draw an estimate of the PERCENT MARKS to be awarded to the student for his / her performance.  
 5. The lab coordinator must IMMEDIATELY CONTACT MENTOR FACULTY of student in case of POOR PERFORMANCE or 2 CONTINUOUS ABSENCE from lab.  
 6. In case of absence, 00 / 10 MARKS will be awarded if the mentioned work is not presented in next lab by student.



**Form-3**  
**PROJECT WEEKLY STATUS MATRIX (FOR PROJECT MENTORS)**

NAME OF STUDENT - 4		Rituik Sharma		
NAME OF PROJECT		Develop and deploy an application for Nutrition Assistant		
OTHER TEAM MEMBERS		1. Rishabh Panchal	2. Pitik Chowpatty	3. Devarshu Soni
WEEK (TO-FROM)	WORKING ON MODULE	PROGRESS ACHIEVED	COMMENTS	MARKS (X / 10)
18/01/23	Documentation	Go through streamlit and its workflow docs		5
24/01/23	Requirement gathering	selection of dataset and ML model		5
21/02/23	Nutrition check	Worked on image Recognition functionality		5
15/02/23	Nutrition check	Testing of image Recognition functionality		6
25/02/23	Assistant	designed and developed Nutrition Assistant		6
5/03/23	Code Review	Review of all modules		
29/03/23	bug fixing	Bugfixing of modules	Suggested to add some	
13/04/23	code optimization	Peer review & code optimization	more images and data	6
TOTAL WEEKS	MODULE COMPLETED (YES / NO)	OVERALL PROGRESS (POOR / AVG / GOOD)	OVERALL COMMENT (POOR / AVG / GOOD)	PERCENTAGE MARKS ESTIMATE
	YES	AVG	AVG	
LAB COORDINATOR's remarks & Signature _____				

- NOTE:** 1. This form is to be maintained in a file by lab coordinators for student - 4 of the team to track his / her progress.
2. Lab coordinators must cross check and evaluate the PROGRESS ACHIEVED + it's DOCUMENTATION by student against the work done by student and note their own comments about student's performance.
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4. The lab coordinator must compute average of these points at the end of semester to draw an estimate of the PERCENT MARKS to be awarded to the student for his / her performance.
5. The lab coordinator must IMMEDIATELY CONTACT MENTOR FACULTY of student in case of POOR PERFORMANCE or 2 CONTINUOUS ABSENCE from lab.
6. In case of absence, 00 / 10 MARKS will be awarded if the mentioned work is not presented in next lab by student.