

PROJECT REPORT

DATE	18 November 2022
TEAM ID	PNT2022TMID38214
PROJECT NAME	AI-powered Nutrition Analyzer for Fitness Enthusiasts

1.INTRODUCTION :

Lack of exercise plus poor eating habits remain significant causes for benign ailments such as heart disorder, insulin resistance, and fatness. These sorts of problems are responsible for seventy percent global mortality and impose a significant monetary load. To decrease such losses, gainful and workable standards of living are sorely required. Comprehensive way of living Programmes for comprehensive way of living have developed gradually in perfect sync with new virtual and advanced tools. Ai technology and related analytical modelling are now the major breakthrough in widening the terrain of medical services and initiatives in current history. Individuals in present era consume unhealthy foods and suffer from serious illnesses of one's incautious conduct. Such ailments seem to be treatable; however the patient's fitness declines. As a result, everyone should follow a healthy diet for their own good. This practise perfectly fulfils the criteria. The proposed methodology presents the client with a necessary nutrition plan by taking into account numerous parameters. The method computes the patient's Body fat percentage based on his or her age and build. It gives a person an appropriate nutrition program based on age, sex, tallness, muscle mass, and illness. Likewise, this strategy generates crash diet based upon the data provided by the client. It includes an authentication server in which the subscriber must sign up before using the plug-in. A risk of service interruption will be a drawback as the system entirely depends on the internet connectivity. The framework provides better accuracy because it recognises the patient's information and processes it based upon certain formulations by now defined to the implementation, mostly on core principle of which a proposed action is created and confirms with the client if the nutrition scheme is acceptable. In case the food chart is not acceptable by the client then framework will propose a different regimen.

1.1Project overview

Food is essential for human life and has been the concern of many healthcare conventions. Nowadays new dietary assessment and nutrition analysis tools enable more opportunities to help people understand their daily eating habits, exploring nutrition patterns and maintain a healthy diet. Nutritional analysis is the process of determining the nutritional

content of food. It is a vital part of analytical chemistry that provides information about the chemical composition, processing, quality control and contamination of food.

The main aim of the project is to building a model which is used for classifying the fruit depends on the different characteristics like colour, shape, texture etc. Here the user can capture the images of different fruits and then the image will be sent the trained model. The model analyses the image and detect the nutrition based on the fruits like (Sugar, Fibre, Protein, Calories, etc.).

1.2.Purpose

The goal of fitness tracking apps is to collect data about the user's activities. These include the number of steps taken, stairs climbed, distance ran, and other fitness metrics. To make it easy for users to monitor progress, create a fitness tracking app that will also provide calendars and charts

2. LITERATURE SURVE

2.1 Existing Problem

Sharing and collaboration are commonplace in today's social media-driven world. But the lack of regulation means it's all too easy for people to share information on fitness, health – and pretty much anything – without any factual backing. Combine this with standard challenges like keeping clients motivated, and there are problems in the fitness industry that can affect your business.

5 Main problems are:

Misinformation , One-Way Approach , Information Overload , Elitist Attitudes ,Lack of Member Support

2.2 References

- <https://www.healthifyme.com/in/>
- [Don't Lose Your Mind, Lose Your Weight](#)

The country's highest-selling diet book, has revolutionized the way Indians think about food and their eating habits

Author: Diwekar Rujuta

- R.S. Pressman, Software Engineering: A Practitioner's Approach, McGraw-Hill, Ed 7, 2010
- P. Jalote, An Integrated Approach to Software Engineering, Narosa Publishing House, Ed 3, 2011
- <https://www.engpaper.com/cse/artificial-intelligence-dietician.html>

<https://www.smartics.eu/confluence/display/PDAC1/How+to+document+a+Software+Development+Project>

- https://en.wikipedia.org/wiki/Healthy_diet#:~:text=Eat%20healthy%20protein%3A%20good%20choices,beause%20sweet%20drinks%20cause%20cravings.

2.3 Problem Statement Definition

- **Misinformation:**

a lot of the inadequate information that's spread over the internet and social media is evident to fitness professionals and personal trainers, the average person doesn't have the same level of knowledge. Often, this means that they're happy to jump on the latest fitness bandwagon – whatever it may be.

- **One-Way Approach:**

Social media is an excellent resource for finding like-minded people with similar interests. This is brilliant because no matter what your interests, you can find a community of people who support you and share your passion.

- **Information Overload:**

You've seen the clients who keep changing their routine every few weeks. And you know the ones that aren't doing it to push through a plateau.

- **Lack of Member Support:**

The reason they leave is that they're unfulfilled. The idea hasn't lived up to expectations. Perhaps they lost motivation or lost sight of their goals. Maybe they were putting in the effort but didn't see the results they wanted.

3. Ideation & Proposed Solution

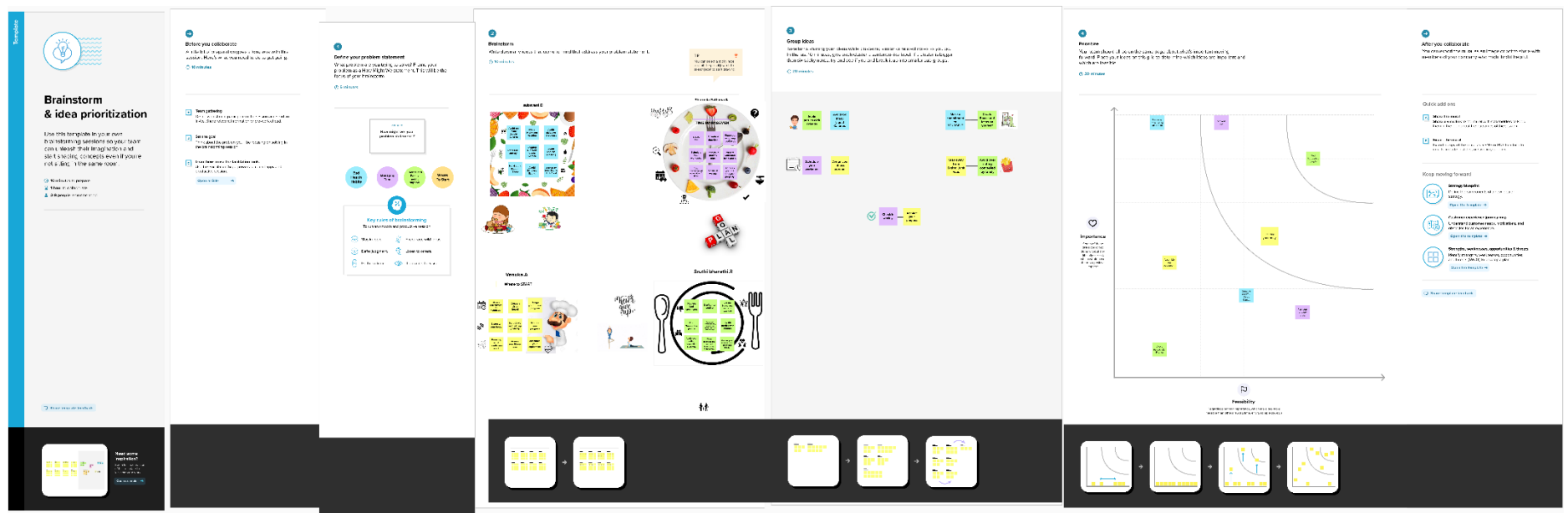
3.1 Empathy Map Canvas

3.2 Ideation and Brainstorming

In this phase we discussed about

- Where to Start
- Time Management
- Friends and Family Support

Bad Health Habits



3.3 Proposed Solution

- **Novelty/Uniqueness**

Giving a individual Food/health Schedule According to their body conditions

- **Social impact/Customer Satisfaction**

Low expenditure ,easy to follow without affecting their personal time.

- **Business model**

Free platform for all users. For specific guidance users want to pay

- **Scalability of the Solution**

Notifying motivational quote's to lead a healthy routine

3.4Problem Solution Fit

Problem-Solution fit canvas 2.0

Purpose / Vision

Define CS, fit into CC

1. CUSTOMER SEGMENT(S)
Who is your customer?
i.e. working parents of 0-5 y.o. kids

CS

- People who want to fit their body and maintain proper or balanced diet in a proper way

6. CUSTOMER CONSTRAINTS
What constraints prevent your customers from taking action or limit their choices of solutions? i.e. spending power, budget, no cash, network connection, available devices.

CC

- constraints may contribute to the unhealthy food choices observed among low socioeconomic groups in industrialized countries.

5. AVAILABLE SOLUTIONS
Which solutions are available to the customers when they face the problem or need to get the job done? What have they tried in the past? What pros & cons do these solutions have? i.e. pen and paper is an alternative to digital notetaking

AS

- Try to eat more protein and fat, and less simple sugars.
- Ask your doctor or dietitian about nutritional supplements.
- Avoid non-nutritious beverages

Explore AS, differentiate

Focus on J&P, tap into BE, understand RC

2. JOBS-TO-BE-DONE / PROBLEMS
Which jobs-to-be-done (or problems) do you address for your customers?
There could be more than one; explore different sides.

J&P

- Being a holistic wellness coach, registered dietitian nutritionist, Food scientists, nutrition educator are the job can successfully done in this field

9. PROBLEM ROOT CAUSE
What is the real reason that this problem exists?
What is the back story behind the need to do this job?
i.e. customers have to do it because of the change in regulations.

RC

- Lack of appetite, or decreased hunger
- A sore mouth or throat can make eating difficult
- Undiet plan in untine eating

7. BEHAVIOUR
What does your customer do to address the problem and get the job done?
i.e. directly related: find the right solar panel installer, calculate usage and benefits;
indirectly associated: customers spend free time on volunteering work (i.e. Greenpeace)

BE

- the sum of all planned, spontaneous, or habitual actions of individuals or social groups to procure, prepare, and consume food as well as those actions related to storage and clearance.

Focus on J&P, tap into BE, understand RC

Identify strong TR & EM

3. TRIGGERS
What triggers customers to act? i.e. seeing their neighbour installing solar panels, reading about a more efficient solution in the news.

TR

- Antigens are substances that the body labels as foreign and harmful, which triggers immune cell activity.

4. EMOTIONS: BEFORE / AFTER
How do customers feel when they face a problem or a job and afterwards?
i.e. lost, insecure > confident, in control - use it in your communication strategy & design.

EM

Before :Initially they felt inferiority complex by their own. And felt more negative thoughts and underestimate themselves.

After :After the correct session they had a great confidence among themself. And achive their Healthy diet

10. YOUR SOLUTION
If you are working on an existing business, write down your current solution first, fill in the canvas, and check how much it fits reality.
If you are working on a new business proposition, then keep it blank until you fill in the canvas and come up with a solution that fits within customer limitations, solves a problem and matches customer behaviour.

SL

- In our platform we provide a individual healthy chart for subscribers
- Normally Common health diet plan was allocated
- Seek your way on organic side amd stay healthy

8. CHANNELS of BEHAVIOUR
8.1 ONLINE
What kind of actions do customers take online? Extract online channels from #7


CH


- Refer journal,through online applications, attending some online session, following healthy remedies.

8.2 OFFLINE
What kind of actions do customers take offline? Extract offline channels from #7 and use them for customer development.

- Taking proteins, visit gym, doing aerobic exercise, consume huge water.

Extract online & offline CH of BE

 Problem-Solution fit canvas is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 license
Created by Daria Nepriakhina / Amaltama.com



4 Requirement Analysis

4.1 Functional Requirement

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
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	Give permission to enter dashboard	Having your details Healthy tips Common food review
FR-4	Diet plans	Mediterranean diet Low- carbohydrate diet High protein diet Diabetic diet

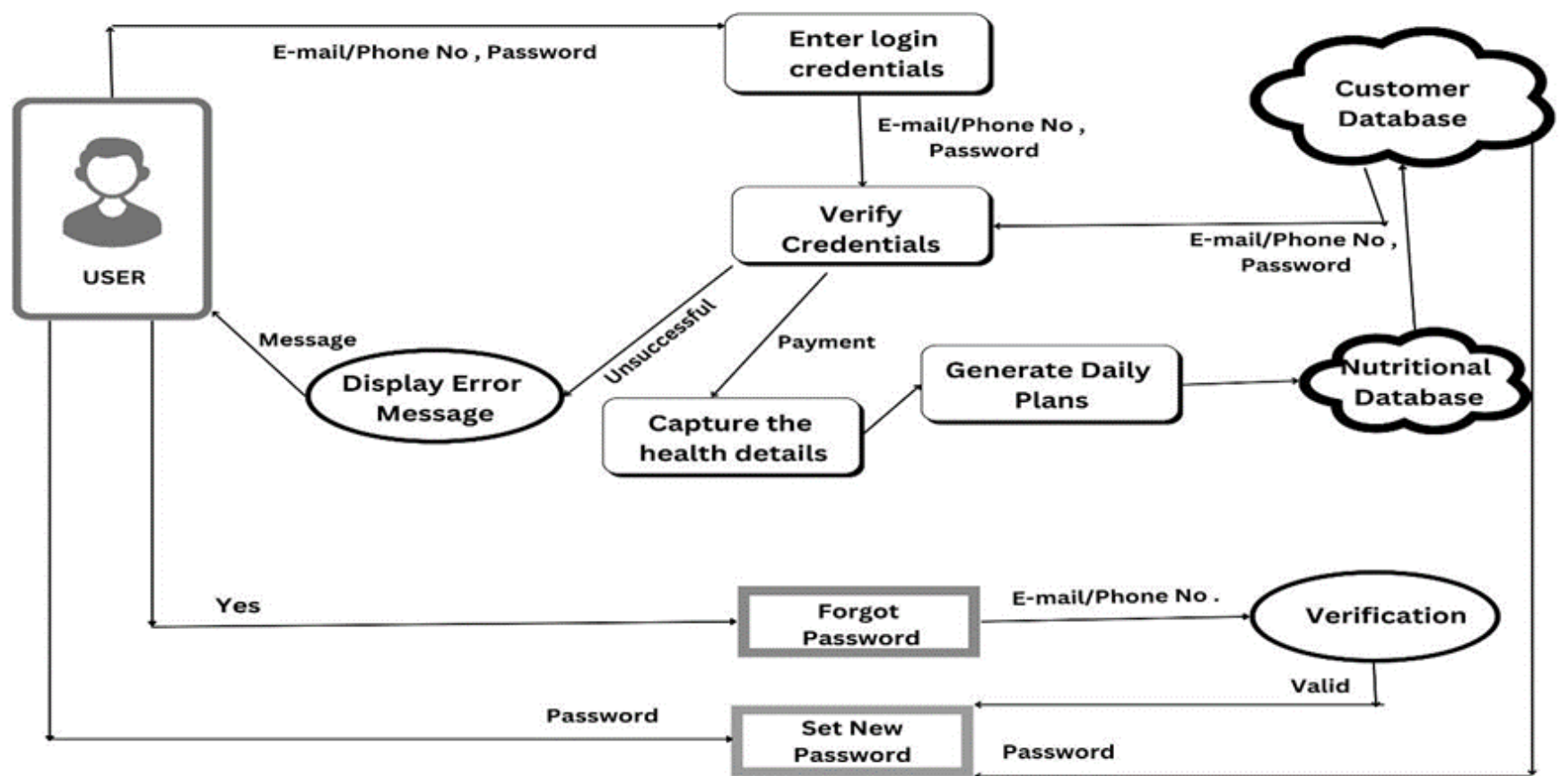
FR-5	Features of subscription	Individual guidance Individual food schedule Chat with mentor
FR-6	Notification	Notify a healthy quotes daily Notify to drink water Notify right time for right food

4.2 Non Functional Requirement

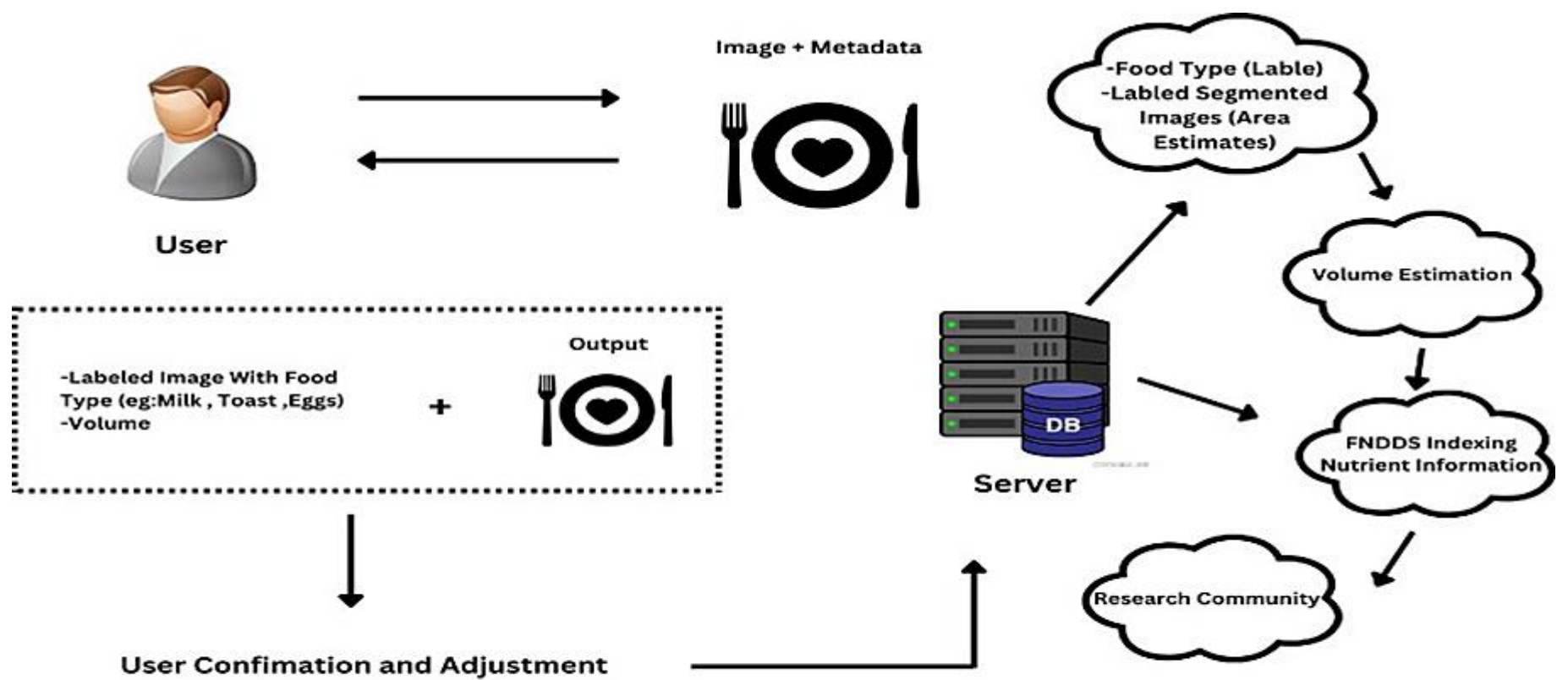
FR No.	Non-Functional Requirement	Description
NFR-1	Usability	As usability is a prerequisite for success of health and wellness through mobile app make use by clients.
NFR-2	Security	By using login page ,verify through e-mail and phone number by sending OTP
NFR-3	Reliability	Awareness and emphasis on the importance of sustaining personal health care and manag their health pervasively.
NFR-4	Performance	Information was saved clearly and having a proper icons.
NFR-5	Availability	Having proper internet this application will work any time.
NFR-6	Scalability	If the client wants a separate chart or modify the food chart they will proceed to deliver the opinion.

5. Project Design

5.1 Data Flow Diagrams



5.2 Solution and Technical Architecture



5.3 User Stories

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Customer (Mobile user)	Registration	USN-1	As a user, I can register for the application by entering my email, password, and confirming my password.	I can access my account / dashboard	High	Sprint-1
		USN-2	As a user, I will receive confirmation email once I have registered for the application	I can receive confirmation email & click confirm	High	Sprint-1
		USN-3	As a user, I can register for the application through Facebook	I can register & access the dashboard with Facebook Login	Low	Sprint-2
		USN-4	As a user, I can register for the application through Gmail		Medium	Sprint-1
	Login	USN-5	As a user, I can log into the application by entering email & password		High	Sprint-1
Customer (Web user)	Login	USN-1	As a user, I can log into the website by entering email & password	Verify the number	High	Sprint-1

6. Project Planning and Scheduling:

6.1 . Sprint Planning and Estimation:

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-1	Data Collection	USN-1	Download Food Nutrition Dataset	4	High	Subavani.D
Sprint-1	Data Preprocessing	USN-2	Importing The Dataset into Workspace	1	Low	Sruthi bharathi. R
Sprint-1		USN-3	Handling Missing Data	3	Medium	Sharmila fathima.A
Sprint-1		USN-4	Feature Scaling	3	Low	Venuka. A
Sprint-1		USN-5	Data Visualization	4	High	Subavani. D
Sprint-1		USN-6	Spitting the Data into the Train and Test	4	Medium	Sruthi bharathi. R
Sprint-1		USN-7	Creating A Dataset with Sliding Windows	4	Medium	Sharmila fathima.A
Sprint-2	Model Building	USN-8	Importing The Model Building Libraries	1	Medium	Venuka. A

Sprint-2		USN-9	Initializing The Model	3	High	Subavani.D
Sprint-2		USN-10	Adding LSTM Layers	2	Medium	Sruthi bharathi. R
Sprint-2		USN-11	Adding Output Layers	3	High	Sharmila fathima.A
Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-2		USN-12	Configure The Learning Process	2	Low	Venuka. A
Sprint-2		USN-13	Train The Model	2	Medium	Sharmila fathima
Sprint-2		USN-14	Model Evaluation	1	Medium	Subavani
Sprint-2		USN-15	Save The Model	2	Medium	Sruthi bharathi
Sprint-2		USN-16	Test The Model	3	High	Venuka
Sprint-3	Application Building	USN-17	Create An HTML File	4	Medium	Subavani, Sruthi bharathi
Sprint-3		USN-18	Build Python Code	4	High	Sharmila fathima, Subavani
Sprint-3		USN-19	Creating our Flask application and loading our model by using load_model method	4	Medium	Sruthi bharathi, venuka
Sprint-3		USN-20	Routing to HTML page	4	High	Subavani
Sprint-3		USN-21	Run the application	2	Medium	Sruthi bharathi
Sprint-4	Train The Model On IBM	USN-21	Register For IBM Cloud	4	Medium	Sruthi Bharathi.R
Sprint-4		USN-22	Train The ML Model On IBM	8	High	Sharmila Fathima
Sprint-4		USN-23	Integrate Flask with Scoring End Point	8	High	Subavani

6.2. Sprint Delivery Schedule:

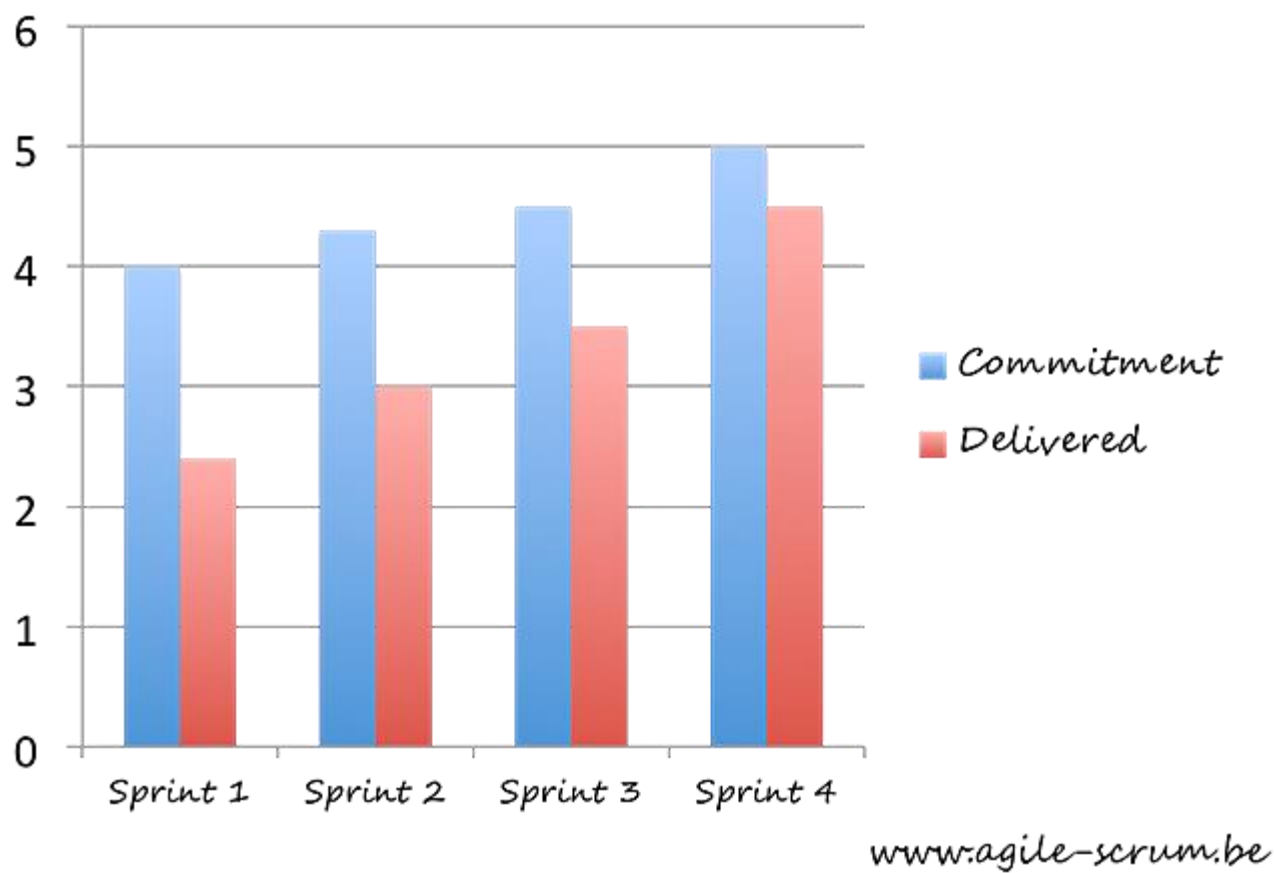
Project Tracker, Velocity & Burndown Chart: (4 Marks)

Sprint	Total Story Points	Duration	Sprint Start Date	Sprint End Date (Planned)	Story Points Completed (as on Planned End Date)	Sprint Release Date (Actual)
Sprint-1	20	6 Days	24 Oct 2022	29 Oct 2022	20	2 Nov 2022
Sprint-2	20	6 Days	31 Oct 2022	05 Nov 2022	20	03 Nov 2022
Sprint-3	20	6 Days	07 Nov 2022	12 Nov 2022	20	10 Nov 2022
Sprint-4	20	6 Days	14 Nov 2022	19 Nov 2022	20	17 Nov 2022

Velocity:

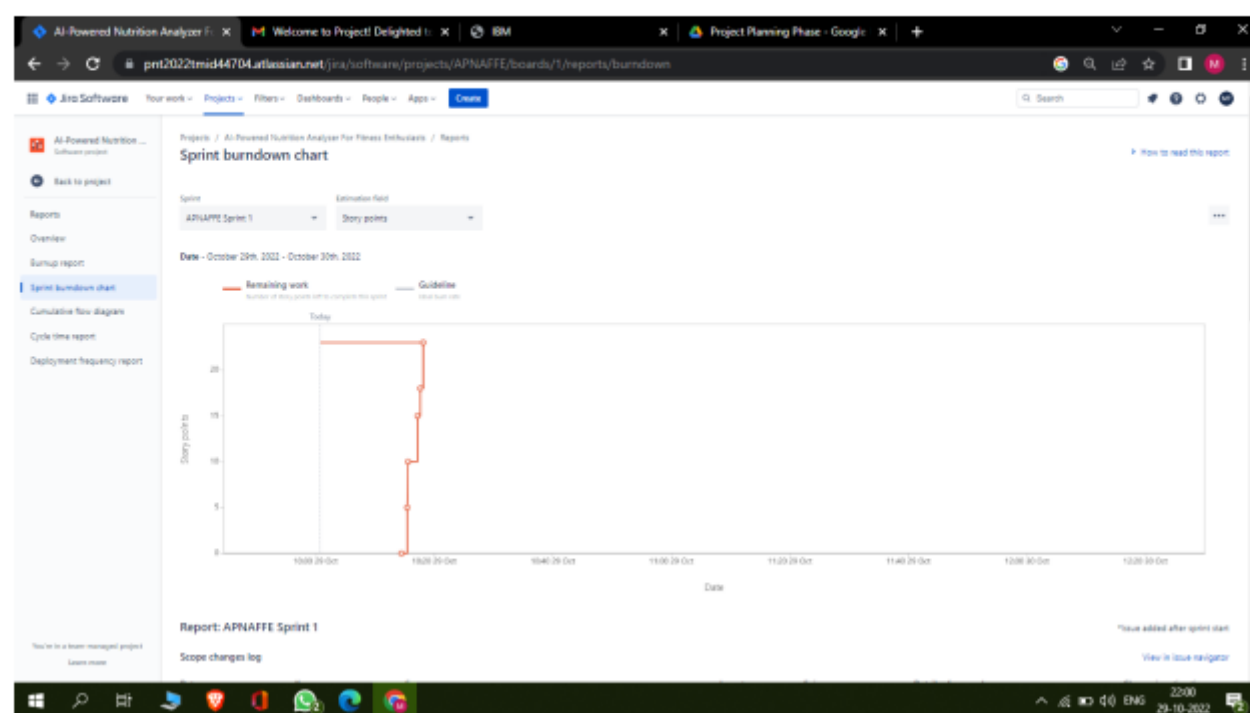
Imagine we have a 10-day sprint duration, and the velocity of the team is 20 (points per sprint). Let's calculate the team's average velocity (AV) per iteration unit (story points per day)

VELOCITY CHART



6.3 Projects From JIRA

6.3 REPORTS FROM JIRA

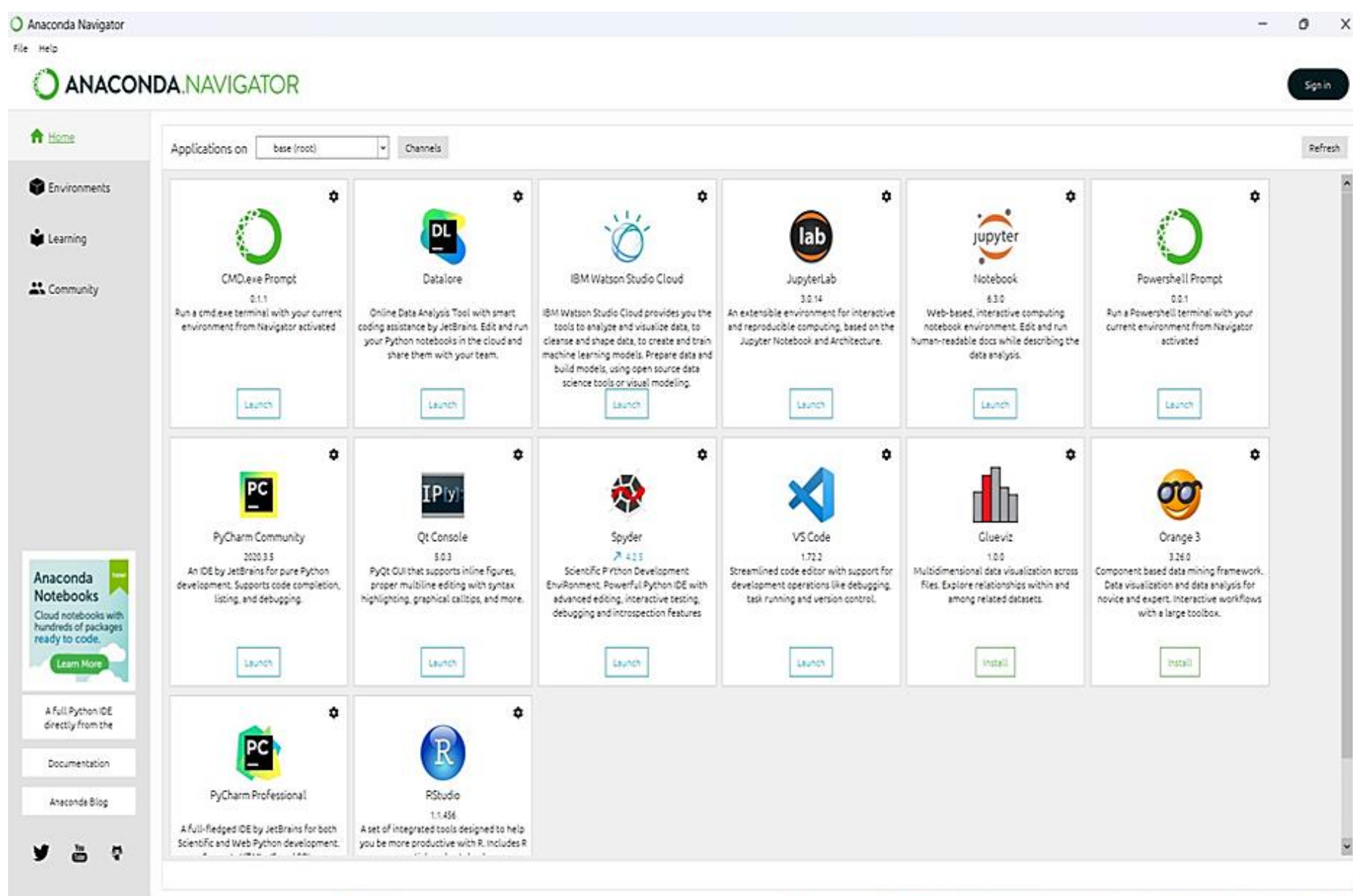


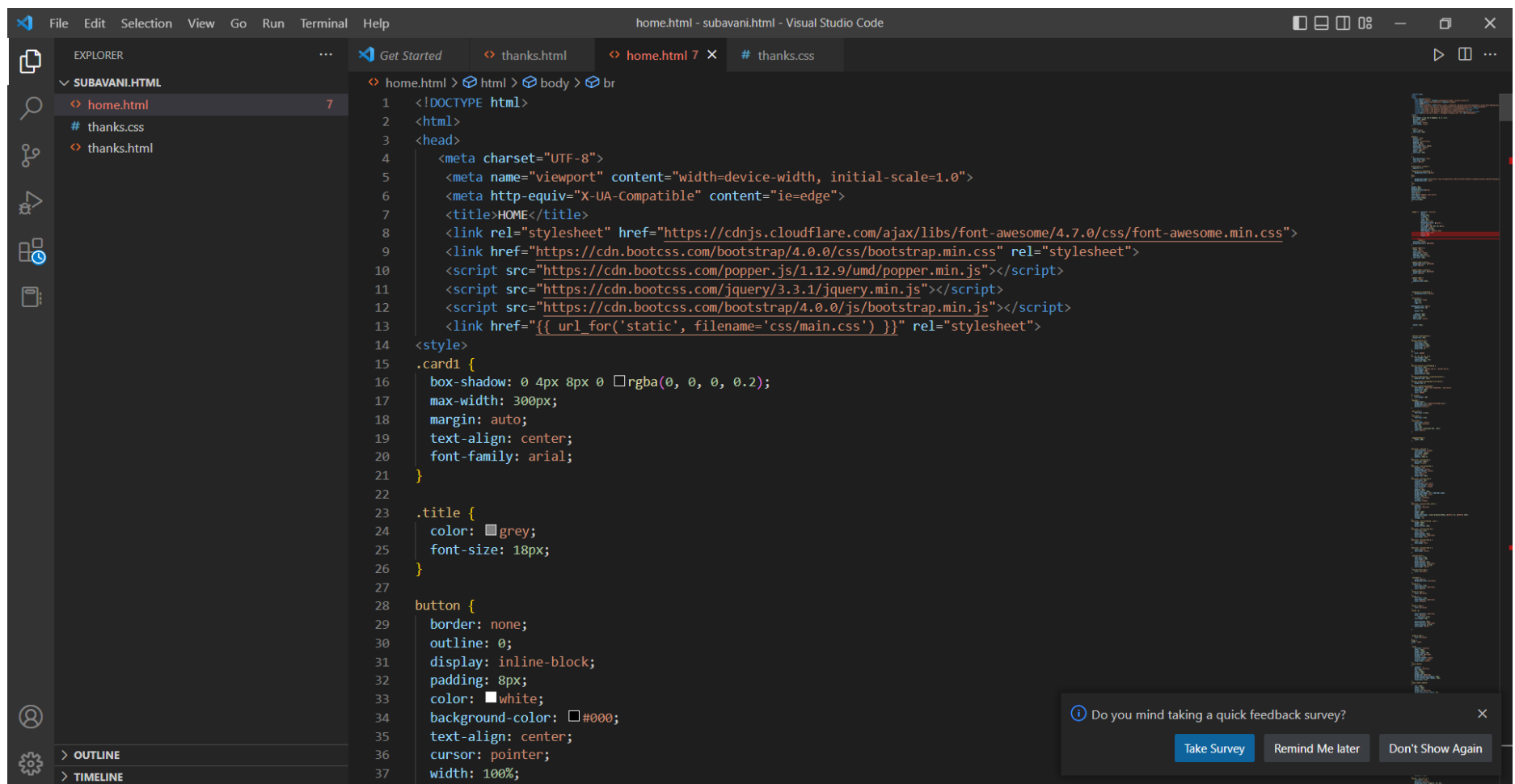
7. Coding and solutioning

7.1 Feature 1

If you are using anaconda navigator, follow the below steps to download the required packages:

1. Open anaconda prompt as administrator.
2. Type "pip install tensorflow==1.14.0" and click enter.
3. Type "pip install keras=2.2.4" and click enter.
4. Type "pip install opencv-python" and click enter. • Type "pip install imutils" and click enter
5. Type "pip install flask" and click enter





```
Data Collection

Download the dataset here

[ ] from google.colab import drive
    drive.mount('/content/drive')

Mounted at /content/drive

[ ] cd/content/drive/MyDrive/Colab Notebooks

/content/drive/MyDrive/Colab Notebooks

[ ] # Unzipping the dataset
    !unzip 'Dataset.zip'
```


Image Preprocessing

```
[ ] from keras.preprocessing.image import ImageDataGenerator
```

Image Data Augmentation

```
[ ] train_datagen = ImageDataGenerator(rescale=1./255, shear_range=0.2, zoom_range=0.2, horizontal_flip=True)
    test_datagen = ImageDataGenerator(rescale=1./255)
```

Applying Image DataGenerator Functionality To Trainset And Testset

```
[ ] x_train = train_datagen.flow_from_directory(
    r'/content/drive/MyDrive/Colab Notebooks/Dataset/TRAIN_SET',
    target_size=(64, 64), batch_size=5, color_mode='rgb', class_mode='sparse')
x_test = test_datagen.flow_from_directory(
    r'/content/drive/MyDrive/Colab Notebooks/Dataset/TEST_SET',
    target_size=(64, 64), batch_size=5, color_mode='rgb', class_mode='sparse')
```

3. Adding CNN Layers

```
[ ] classifier = Sequential()
    classifier.add(Conv2D(32, (3, 3), input_shape=(64, 64, 3), activation='relu'))
    classifier.add(MaxPooling2D(pool_size=(2, 2)))
    classifier.add(Conv2D(32, (3, 3), activation='relu'))
    classifier.add(MaxPooling2D(pool_size=(2, 2)))
    classifier.add(Flatten())
```

4. Adding Dense Layers

```
[ ] classifier.add(Dense(units=128, activation='relu'))
    classifier.add(Dense(units=5, activation='softmax'))
```

```
[ ] classifier.summary()
```

Model: "sequential_1"

Layer (type)	Output Shape	Param #
conv2d (Conv2D)	(None, 62, 62, 32)	896

5. Configure The Learning Process

```
[ ] classifier.compile(optimizer='adam', loss='sparse_categorical_crossentropy', metrics=['accuracy'])
```

6. Train The Model

```
[ ] classifier.fit_generator(generator=x_train, steps_per_epoch = len(x_train), epochs=20, validation_data=x_test, validation_steps = len(x_test))
```

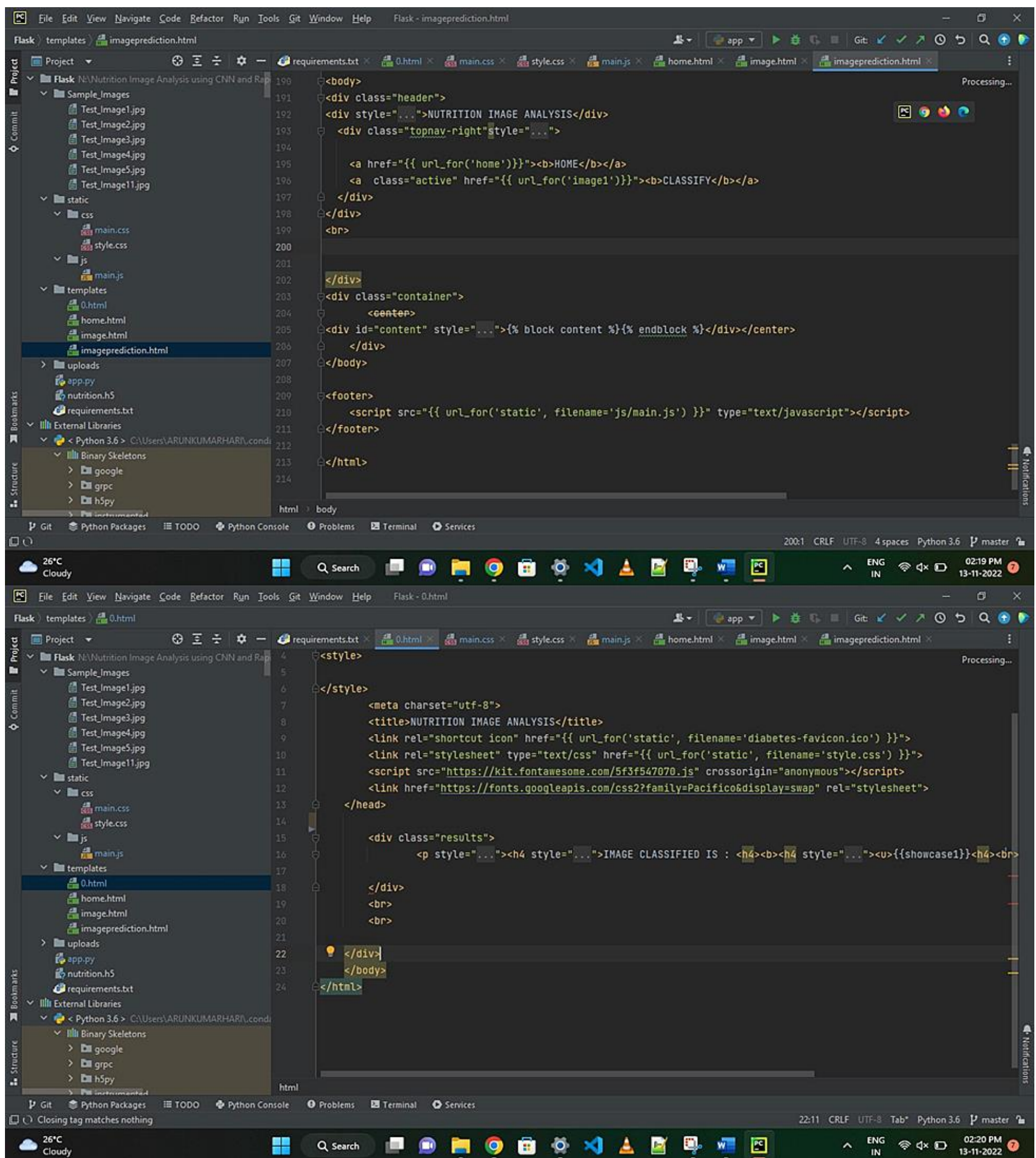
/usr/local/lib/python3.7/dist-packages/ipykernel_launcher.py:2: UserWarning: `Model.fit_generator` is deprecated and will be removed in a future version. Please use `Model.fit` instead.

Epoch 1/20
494/824 [=====>.....] - ETA: 6:52 - loss: 0.7194 - accuracy: 0.7174

7. Saving The Model

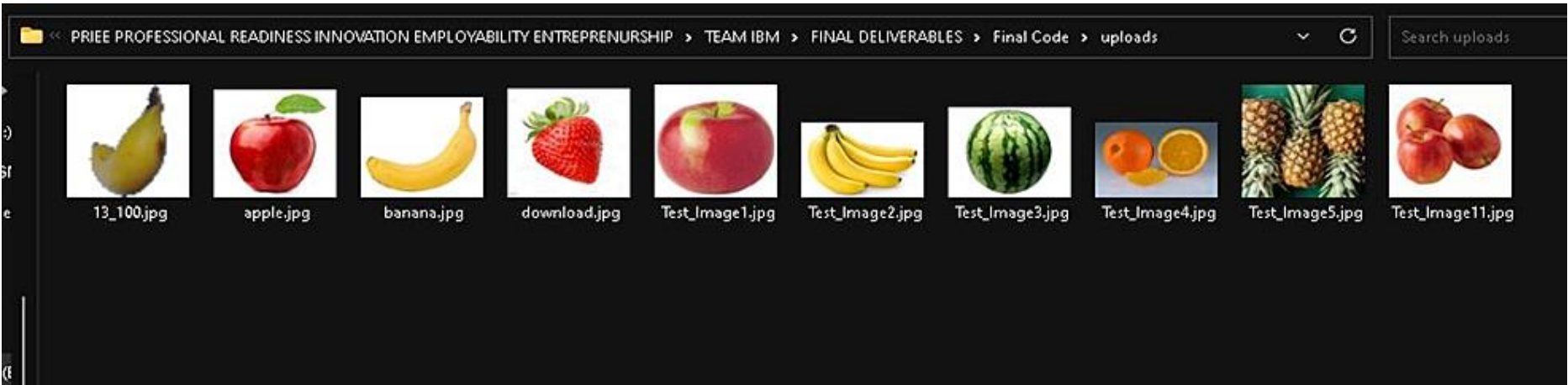
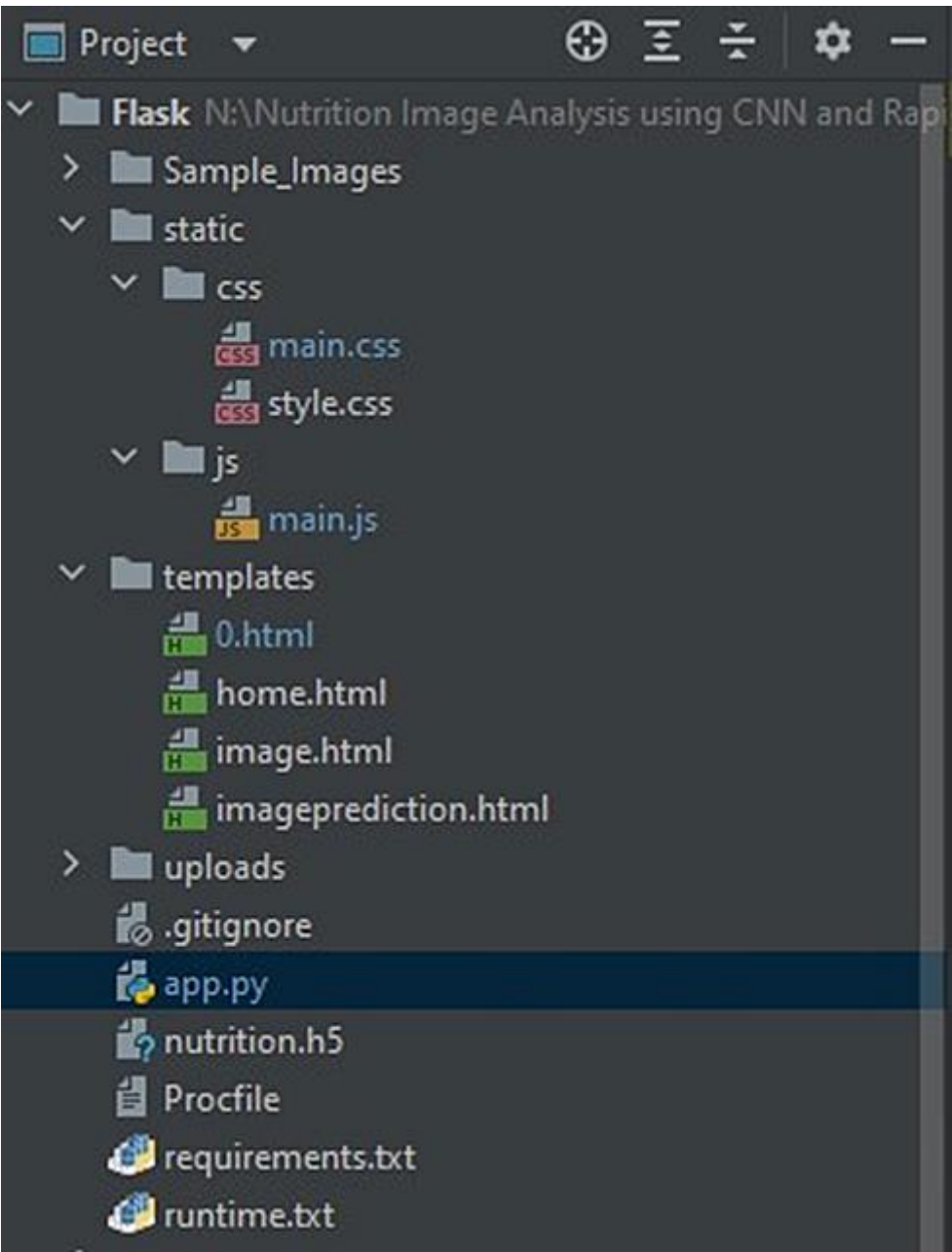
```
[ ] classifier.save('nutrition.h5')
```

Feature2



8. Testing

8.1 Test Cases



8.2 User Acceptance Testing



We are performing **White Box Testing** for select the package module.

Pseudocode for select the package module is-

1. select_the_package() procedure begins
2. READ the package name, features, offers and duration from the package database
3. DISPLAY the package name, features, offers and duration
4. DO
5. GET the package name, features, offers and duration
6. STORE the package selected to the customer's database
7. PROCEED to payment screen //another module
8. WHILE select package is NULL
9. //End DO...WHILE
10. procedure ends

FLOWGRAPH

Flowgraph

CYCLOMATIC COMPLEXITY OF RESULTANT GRAPH

$V(G) = \text{Number of regions}$

$= 2$

$V(G) = \text{Edges} - \text{Nodes} + 2$

$= 8 - 8 + 2$

$= 2$

$V(G) = \text{Predicate nodes} + 1$

$= 1 + 1$

$= 2$

LINEARLY INDEPENDENT PATHS FOR FLOW GRAPHS

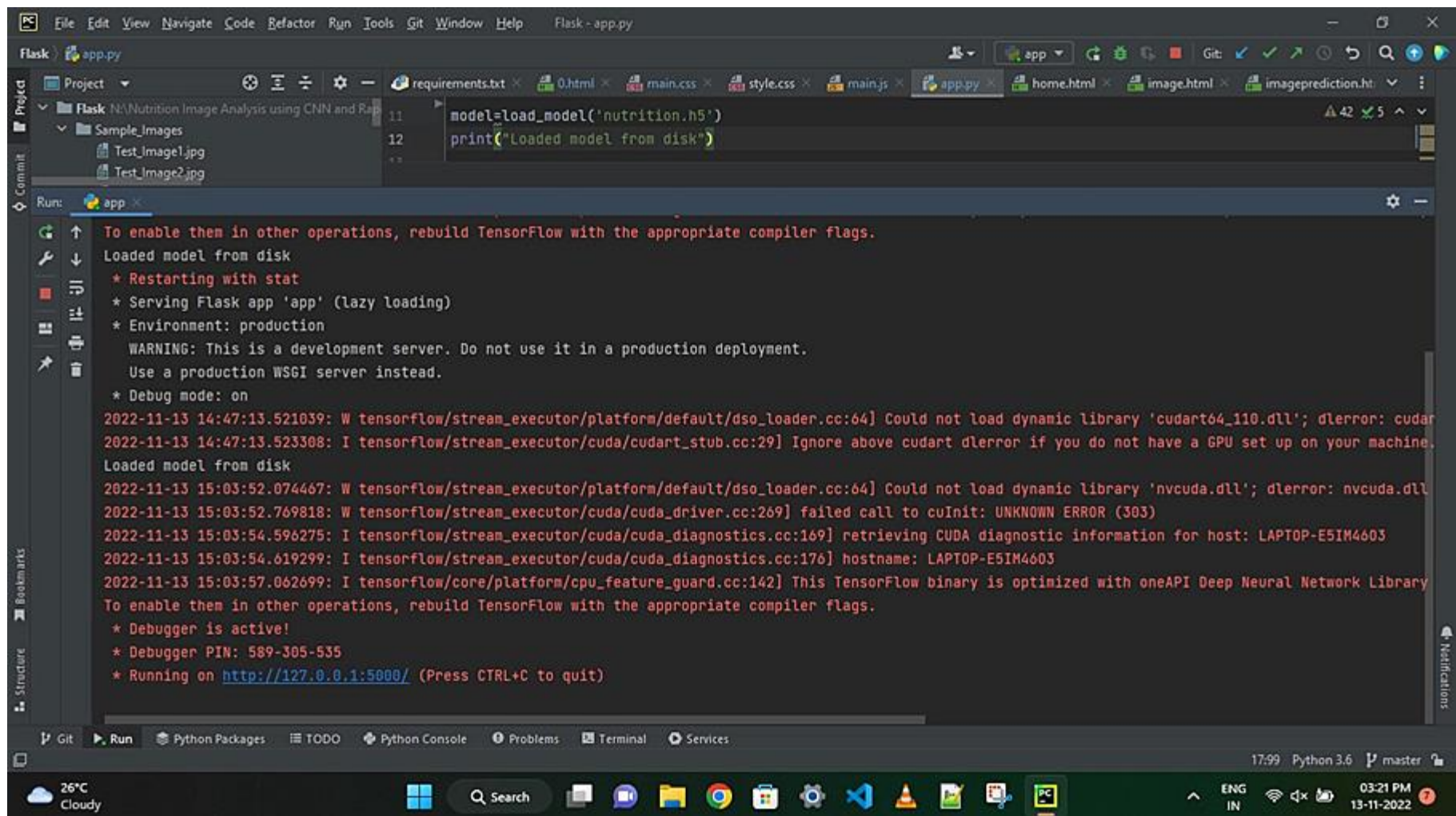
Path 1: 1-2-3-4-5-6-7-8-9-10

Path 2: 1-2-3-4-5-6-7-8-4-5-6-7-8-9-10

TEST ID	INPUT VALUES	ACTUAL OUTPUT	EXPECTED OUTPUT
1	Package is selected	To be observed after execution	Display the selected package
2	Package is not selected	To be observed after execution	Show the packages to select until one is selected

Test Cases Table

9. Performance Testing



10. Advantages

- Monitor Your Diet Easily. Weight watchers or people who want to gain weight can mention the type and amount of foods consumed at each meal.
- Monitor Your Progress.
- Give Free Health and Fitness Tips. .
- Track Your Foot Steps. ...
- Provide Personal Health Coaches.
- All In One Health Tool.
- Keep You Motivated.

Disadvantages

- Cost of using
- Fitness Trackers Collect and Store Your Health Data.
- Fitness Trackers Can Provide Inaccurate Results.
- Fitness Trackers May Lead to an Obsession With Numbers

11. Conclusion

Engaging in regular physical activity may produce improvements in an individual's physical health, cognitive performance, and psychological well-being. Physical benefits include, but are not limited to, reduced risk for diseases, and improvements in physical functioning, fitness, and overall quality of life.

The purpose of a fitness app is to provide the user with instructions and examples of one or more types of exercise, physical activity, nutritional programs

12. Future Scope

- Offers payment convenience in personal training subscriptions.
- Useful articles.
- Video instructions.
- Diet Plans.
- Individual progress tracking.
- Live video from training sessions

13. Appendix

Source Code:

```
<!DOCTYPE html>

<html>

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<meta http-equiv="X-UA-Compatible" content="ie=edge">

<title>HOME</title>

<link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/bootstrap@4.7.0/css/bootstrap.min.css">

<link href="https://cdn.jsdelivr.net/npm/bootstrap@4.0.0/css/bootstrap.min.css" rel="stylesheet">

<script src="https://cdn.jsdelivr.net/npm/popper.js@1.12.9/umd/popper.min.js"></script>

<script src="https://cdn.jsdelivr.net/npm/jquery@3.3.1/jquery.min.js"></script>

<script src="https://cdn.jsdelivr.net/npm/bootstrap@4.0.0/js/bootstrap.min.js"></script>

<link href="{{ url_for('static', filename='css/main.css') }}" rel="stylesheet">
```

<style>

.card1 {

box-shadow: 0 4px 8px 0 rgba(0, 0, 0, 0.2);

max-width: 300px;

margin: auto;

text-align: center;

font-family: arial;

}

.title {

color: grey;

font-size: 18px;

}

button {

border: none;

outline: 0;

display: inline-block;

padding: 8px;

color: white;

background-color: #000;

text-align: center;

cursor: pointer;

width: 100%;

font-size: 18px;

}

a {

text-decoration: none;

font-size: 22px;

color: black;

}

button:hover, a:hover {

opacity: 0.7;

}

.navbarScroll.navbarDark {

```
background-color: black;

}

body

{

background-image: url("https://www.livingproofnyc.com/wp-content/themes/livingproof/assets/img/hero-background.jpg");

background-size: cover;

}

.bar

{

margin: 0px;

padding:30px;

background-color:black;

opacity:0.6;

color:red;

font-family:'Roboto',sans-serif;

font-style: italic;

border-radius:30px;

font-size:10px;

}


```

```
.header { position: relative;

top:0;

margin:0px;

z-index: 1;

left: 0px;

right: 0px;

position: fixed;

background-color: violet ;

color: white;

box-shadow: 0px 8px 4px grey;

overflow: hidden;

padding-left:10px;

font-family: 'Josefin Sans'

font-size: 1.5vw;

width: 100%;


```

height:10%;

}

.topnav {

overflow: hidden;

background-color: #FCAD98;

}

.topnav-right a {

float: left;

color: black;

text-align: center;

padding: 14px 16px;

text-decoration: none;

font-size: 18px;

}

.topnav-right a:hover {

background-color: #FFDC00;

color: black;

}

.topnav-right a.active {

background-color: #FFDC00;

color: black;

}

.topnav-right {

float: right;

padding-right:100px;

}

.navbarScroll.navbarDark {

background-color: black;

}


```
.ct-socials {

    position: fixed;

    top: 25%;

    right: 0;


    background-color: blue;

    padding-left: 20;


    margin: 50;


    padding: 10px;

    font-size: 10px;

    width: 40px;

    text-align: center;


    border: 80px;

}


```

```
.section.triad-section {

    margin-top: 10px;

}

section.section h2 {

    font-size: 20px;

    line-height: 46px;

    margin-bottom: 20px;

    text-align: center;

    margin-top: 0;

}

h2 {

    color: #000;

}


```

```
h1, h2, h3, h4, h5, h6 {

    font-weight: 200;

}


```

```
letter-spacing: -1px;

font-size: 30px;

}

section.section p.sub-heading {

font-size: 16px;

font-family: "Gotham SSm A", "Gotham SSm B";

font-weight: 300;

text-align: center;

margin-bottom: 40px;

}

section.triad-section .triad-sub-section {

padding-right: 60px;

}

section p.detail-paragraph:first-child {

margin-top: 0;

}

section p.detail-paragraph {

font-family: 'Open Sans Condensed', sans-serif;

margin-top: 40px;

font-size: 18px;

color: #000;

}

b, strong {

font-weight: 700;

}

.bgimage {

height:100vh;

background: url('images/herolmage.jpg');

background-size:cover;

position:relative;

}

.hero_title {

font-size: 4.5rem;

}

.hero_desc {

font-size: 2rem;
```

```
}

.hero-text {

    text-align: center;

    position: absolute;

    top: 50%;

    left: 50%;

    transform: translate(-50%, -50%);

    color: white;

}
```

```
.imageAboutPage {

    width: 100%;

}
```

```
#services .services {

    flex-direction: column;

    text-align: center;

    max-width: 1500px;

    margin: 0 auto;

    padding: 100px 0;

}
```

```
#services .service-top {

    max-width: 500px;

    margin: 0 auto;

}
```

```
#services .service-bottom {

    display: flex;

    align-items: center;

    justify-content: center;

    flex-wrap: wrap;

    color: red;

    margin-top: 50px;

}
```

```
#services .service-item {

    flex-basis: 80%;

    display: flex;

    align-items: flex-start;
```

```
justify-content: center;

flex-direction: column;

color: red;

padding: 30px;

border-radius: 10px;

background-image: url(/img/img-1.png);

background-size: cover;

margin: 10px 5%;

position: relative;

z-index: 1;

overflow: hidden;
}

#services .service-item::after {

content: ";

position: absolute;

left: 0;

top: 0;

height: 100%;

width: 100%;

background-image: linear-gradient(60deg, #29323c 0%, #485563 100%);

opacity: 0.9;

z-index: -1;
}

#services .service-bottom .icon {

height: 80px;

width: 80px;

margin-bottom: 20px;
}

#services .service-item h2 {

font-size: 2rem;

color: red;

margin-bottom: 10px;

text-transform: uppercase;

text-align: left;
}

#services .service-item p {

color: white;

text-align: left;
}
```

```
#services .service-item a {  
  
    color: white;  
  
    text-align: center;  
  
}
```

```
.section-title {  
  
    font-size: 4rem;  
  
    font-weight: 300;  
  
    color: black;  
  
    margin-bottom: 10px;  
  
    text-transform: uppercase;  
  
    letter-spacing: 0.2rem;  
  
    text-align: center;  
  
}
```

```
.section-title span {  
  
    color: crimson;  
  
}
```

```
.cta:hover {  
  
    color: white;  
  
    background-color: crimson;  
  
}
```

```
.brand h1 {  
  
    font-size: 3rem;  
  
    text-transform: uppercase;  
  
    color: white;  
  
}
```

```
.brand h1 span {  
  
    color: crimson;  
  
}
```

```
.brand a {  
  
    font-size: 3rem;  
  
    text-transform: uppercase;  
  
    color: Tomato;  
  
}
```



```
.brand a span {  
  
    color: crimson;  
  
}  
  
.brand p{  
  
  
  
    text-transform: uppercase;  
  
    color: Tomato;  
  
    font-size: 4rem;  
  
    font-weight: 300;  
  
  
  
    margin-bottom: 10px;  
  
    text-transform: uppercase;  
  
    letter-spacing: 0.2rem;  
  
    text-align: center;  
  
  
}
```

```
.brand p span {  
  
    color: crimson;  
  
}  
  
#logo {  
  
float: right;  
  
}
```

```
.face{  
  
    position: relative;  
  
    width: 250px;  
  
    height: 250px;  
  
    border-radius: 50%;  
  
    background: #ffcd00;  
  
    display: flex;  
  
    justify-content: center;  
  
    justify-items: center;  
  
    align-items: center;  
  
}  
  
.face::before  
  
{
```

```
content: ";\n\nposition: absolute;\n\ntop: 150px;\n\nwidth: 150px;\n\nheight: 70px;\n\nbackground: #b57700;\n\nborder-bottom-left-radius: 70px;\n\nborder-bottom-right-radius: 70px;\n\ntransition: 0.5s;\n}\n
```

```
.face::hover::before\n\n{\n\n    top: 210px;\n\n    width: 150px;\n\n    height: 20px;\n\n    background: #b57700;\n\n    border-bottom-left-radius: 0px;\n\n    border-bottom-right-radius: 0px;\n\n}\n
```

```
.eyes\n\n{\n\n    position: relative;\n\n    top: -40px;\n\n    display: flex;\n\n}\n
```

```
.eyes .eye\n\n{\n\n    position: relative;\n\n    width: 80px;\n\n    height: 80px;\n\n    display: block;\n\n    background: #fff;\n\n    margin: 0 15px;\n\n    border-radius: 50%;\n\n}\n
```

```
.eyes .eye::before\n\n{\n\n    content: ";\n\n    position: absolute;\n\n}
```

```
top: 50%;

left: 25px;

transform: translate(-50%,-50%);

width: 40px;

height: 40px;

background: #333;

border-radius: 50%;

}
```

```
#header {

position: fixed;

z-index: 1000;

left: 0;

top: 0;

width: 100vw;

height: auto;

}
```

```
#header .header {

min-height: 8vh;

background-color: rgba(31, 30, 30, 0.24);

transition: 0.3s ease background-color;

}
```

```
#header .nav-bar {

display: flex;

align-items: center;

justify-content: space-between;

width: 100%;

height: 100%;

max-width: 1300px;

padding: 0 10px;

}
```

```
#header .nav-list ul {

list-style: none;

position: absolute;

background-color: rgb(31, 30, 30);

width: 100vw;

height: 100vh;

left: 100%;
```

```
top: 0;

display: flex;

flex-direction: column;

justify-content: center;

align-items: center;

z-index: 1;

overflow-x: hidden;

transition: 0.5s ease left;
}

#header .nav-list ul.active {

left: 0%;
}

#header .nav-list ul a {

font-size: 2.5rem;

font-weight: 500;

letter-spacing: 0.2rem;

text-decoration: none;

color: white;

text-transform: uppercase;

padding: 20px;

display: block;
}

#header .nav-list ul a::after {

content: attr(data-after);

position: absolute;

top: 50%;

left: 50%;

transform: translate(-50%, -50%) scale(0);

color: rgba(240, 248, 255, 0.021);

font-size: 13rem;

letter-spacing: 50px;

z-index: -1;

transition: 0.3s ease letter-spacing;
}

#header .nav-list ul li:hover a::after {

transform: translate(-50%, -50%) scale(1);

letter-spacing: initial;
}

#header .nav-list ul li:hover a {
```

```
    color: crimson;

}

#header .hamburger {

    height: 60px;

    width: 60px;

    display: inline-block;

    border: 3px solid white;

    border-radius: 50%;

    position: relative;

    display: flex;

    align-items: center;

    justify-content: center;

    z-index: 100;

    cursor: pointer;

    transform: scale(0.8);

    margin-right: 20px;

}

#header .hamburger:after {

    position: absolute;

    content: "";

    height: 100%;

    width: 100%;

    border-radius: 50%;

    border: 3px solid white;

    animation: hamburger_puls 1s ease infinite;

}

#header .hamburger .bar {

    height: 2px;

    width: 30px;

    position: relative;

    background-color: white;

    z-index: -1;

}

#header .hamburger .bar::after,

#header .hamburger .bar::before {

    content: "";

    position: absolute;

    height: 100%;

    width: 100%;
```

```
    left: 0;

    background-color: white;

    transition: 0.3s ease;

    transition-property: top, bottom;
}

#header .hamburger .bar::after {

    top: 8px;
}

#header .hamburger .bar::before {

    bottom: 8px;
}

#header .hamburger.active .bar::before {

    bottom: 0;
}

#header .hamburger.active .bar::after {

    top: 0;
}
```

```
#hero {

    background-image: url('logo.png');

    background-repeat: no-repeat;

    background-attachment: fixed;

    background-position: 90% 40%;

    position: relative;

    z-index: 1;
}
```

```
#hero::after {

    content: "";

    position: absolute;

    left: 0;

    top: 0;

    height: 100%;

    width: 100%;

    background-color: black;

    opacity: 0.7;

    z-index: -1;
}
```

```
#hero .hero {
```



```
max-width: 1200px;

margin: 0 auto;

padding: 0 50px;

justify-content: flex-start;
}

#hero h1 {

display: block;

width: fit-content;

font-size: 4rem;

position: relative;

color: transparent;

animation: text_reveal 0.5s ease forwards;

animation-delay: 1s;
}

#hero h1:nth-child(1) {

animation-delay: 1s;
}

#hero h1:nth-child(2) {

animation-delay: 2s;
}

#hero h1:nth-child(3) {

animation: text_reveal_name 0.5s ease forwards;

animation-delay: 3s;
}

#hero h1 span {

position: absolute;

top: 0;

left: 0;

height: 100%;

width: 0;

background-color: crimson;

animation: text_reveal_box 1s ease;

animation-delay: 0.5s;
}

#hero h1:nth-child(1) span {

animation-delay: 0.5s;
}

#hero h1:nth-child(2) span {

animation-delay: 1.5s;
```

```
}

#hero h1:nth-child(3) span {

    animation-delay: 2.5s;

}

#hero h2 {

    display: block;

    width: fit-content;

    font-size: 4rem;

    text-align: top;

    position: relative;

    color: orange;

    background-color: Tomato

    animation: text_reveal 0.5s ease forwards;

    animation-delay: 1s;

}
```

```
#services .services {

    flex-direction: column;

    text-align: center;

    max-width: 1500px;

    margin: 0 auto;

    padding: 100px 0;

}
```

```
#services .service-top {

    max-width: 500px;

    margin: 0 auto;

}
```

```
#services .service-bottom {

    display: flex;

    align-items: center;

    justify-content: center;

    flex-wrap: wrap;

    color: red;

    margin-top: 50px;

}
```

```
#services .service-item {

    flex-basis: 80%;

    display: flex;
```

```
align-items: flex-start;

justify-content: center;

flex-direction: column;

color: red;

padding: 30px;

border-radius: 10px;

background-image: url(/img/img-1.png);

background-size: cover;

margin: 10px 5%;

position: relative;

z-index: 1;

overflow: hidden;
}

#services .service-item::after {

content: ";

position: absolute;

left: 0;

top: 0;

height: 100%;

width: 100%;

background-image: linear-gradient(60deg, #29323c 0%, #485563 100%);

opacity: 0.9;

z-index: -1;
}

#services .service-bottom .icon {

height: 80px;

width: 80px;

margin-bottom: 20px;
}

#services .service-item h2 {

font-size: 2rem;

color: black;

margin-bottom: 10px;

text-transform: uppercase;

text-align: left;
}

#services .service-item p {

color: white;

text-align: left;
```

```
}
```

```
#services .service-item a {
```

```
    color: white;
```

```
    text-align: center;
```

```
}
```

```
#footer {
```

```
    background-image: linear-gradient(60deg, #29323c 0%, #485563 100%);
```

```
}
```

```
#footer .footer {
```

```
    min-height: 200px;
```

```
    flex-direction: column;
```

```
    padding-top: 50px;
```

```
    padding-bottom: 10px;
```

```
}
```

```
#footer h2 {
```

```
    color: white;
```

```
    font-weight: 500;
```

```
    font-size: 1.8rem;
```

```
    letter-spacing: 0.1rem;
```

```
    margin-top: 10px;
```

```
    margin-bottom: 10px;
```

```
}
```

```
#footer .social-icon {
```

```
    display: flex;
```

```
    margin-bottom: 30px;
```

```
}
```

```
#footer .social-item {
```

```
    height: 50px;
```

```
    width: 50px;
```

```
    margin: 0 5px;
```

```
}
```

```
#footer .social-item img {
```

```
    filter: grayscale(1);
```

```
    transition: 0.3s ease filter;
```

```
}
```

```
#footer .social-item:hover img {
```

```
    filter: grayscale(0);

}
```

```
#footer p {

    color: white;

    font-size: 1.3rem;

}
```

```
@keyframes hamburger_puls {

    0% {

        opacity: 1;

        transform: scale(1);

    }

    100% {

        opacity: 0;

        transform: scale(1.4);

    }

}
```

```
@keyframes text_reveal_box {

    50% {

        width: 100%;

        left: 0;

    }

    100% {

        width: 0;

        left: 100%;

    }

}
```

```
@keyframes text_reveal {

    100% {

        color: white;

    }

}
```

```
@keyframes text_reveal_name {

    100% {

        color: crimson;

        font-weight: 500;

    }

}
```

```
@media only screen and (min-width: 768px) {
```

```
  .cta {  
  
    font-size: 2.5rem;  
  
    padding: 20px 60px;  
  
  }
```

```
  h1.section-title {  
  
    font-size: 6rem;  
  
  }
```

```
  #hero h1 {  
  
    font-size: 7rem;  
  
  }
```

```
  #services .service-bottom .service-item {  
  
    flex-basis: 45%;  
  
    margin: 2.5%;  
  
  }
```

```
}
```

```
@media only screen and (min-width: 1200px) {
```

```
  #header .hamburger {  
  
    display: none;  
  
  }
```

```
  #header .nav-list ul {  
  
    position: initial;  
  
    display: block;  
  
    height: auto;  
  
    width: fit-content;  
  
    background-color: transparent;  
  
  }
```

```
  #header .nav-list ul li {  
  
    display: inline-block;
```

```
}

#header .nav-list ul li a {

    font-size: 1.8rem;

}

#header .nav-list ul a:after {

    display: none;

}


#services .service-bottom .service-item {

    flex-basis: 22%;

    margin: 1.5%;

}

}

</style>

</head>

<body>


<!--Brian Tracy-->


<div class="header">

<div style="width:50%;float:left;font-size:1.5vw;text-align:left;color:black; padding-top:1%;padding-left:5%;">AI-POWERED NUTRITION ANALYSER FOR FITNESS ENTHUSIASTS</div>

<div class="topnav-right" style="padding-top:0.5%;">

    <a class="active" href="{{ url_for('home') }}"><b>HOME</b></a>

    <a href="{{ url_for('image1') }}"><b>CLASSIFY</b></a>

</div>

</div>

</div>

<br>

<br>




<section id="about">

    <div class="container mt-4 pt-4">

        <br><br><br><center>

            <h1 class="text-center"><center><b>&nbsp;FOOD IS ESSENTIAL</center></b></h1>

            <div class="row mt-4"><center>
```


<div class="col-lg-6">

</div>

<div class="col-lg-8">

Food is essential for human life and has been the concern of many healthcare conventions.

Nowadays new dietary assessment and nutrition analysis tools enable more opportunities to help people understand their daily eating habits, exploring nutrition patterns and maintain a healthy diet.

Nutritional analysis is the process of determining the nutritional content of food.

It is a vital part of analytical chemistry that provides information about the chemical composition, processing, quality control and contamination of food.

</div><center>

</div>

</section>

<section id="about">

<div class="container mt-4 pt-4">

<h1 class="text-center">AI IN FOOD INDUSTRY</h1>

<div class="row mt-4"><center>

<div class="col-lg-6">

</div>

<div class="col-lg-8">

The main aim of the project is to building a model which is used for classifying the fruit depends on the different characteristics like colour, shape, texture etc.

Here the user can capture the images of different fruits and then the image will be sent the trained model.

The model analyses the image and detect the nutrition based on the fruits like (Sugar, Fibre, Protein, Calories, etc.).

</div></center>

```

    </div>

</section>

<br>

<br>

<br>

<br>

<br>

    <br>

    <br><br>


<br>

<br>

<br>

<br>

</div>

</body>

</html>
```

Github and Project demo link

<https://youtu.be/b8lyWJVjqZU>