



# SMART TRACKER FOR MID-DAY MEALS

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## **ABSTRACT**

PM POSHAN is a mid-day meal program for giving one hot, cooked, and nutritious meal to students of classes 1–8 in all government and government-aided schools. These meals are given once a day in school during school days. It is mandated that each child should get 450 calories and 12 grams of protein at the primary level and 700 calories and

20 grams of protein at the upper primary level per day. This website assists in monitoring both the physical and nutritional health of each child. Additionally, offered is doctor consultation. Healthy food does not have merely one but numerous benefits. It helps us in various spheres of life. Healthy food does not only impact our physical health but mental health too. If your clients still need to come to your clinic to book an appointment to see you, then you need to start thinking of using the online appointment system as soon as possible.

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# CHAPTER 1

## INTRODUCTION

### PROJECT DEFINITION

Smart Tracker for mid-day meals will help the child obtain the right nutrition they need. An easy way to ensure that children get the nutrients they need is by choosing healthy foods for them to eat. Healthy eating in a child's early years can increase their cognitive development and ability to learn for years to come. This website assists in monitoring both physical and nutritional health. Additionally offered is a doctor consultation.

### PROJECT OVERVIEW

Despite such integrated child development plans, India has serious problems such as child stunting, child mortality, child wasting, and malnutrition. The same may be said for India's ranking of 94 in the Global Hunger Index 2020. Discrimination based on caste undermines MDMS's goal – According to the National Campaign for Dalit Rights' 2008 Report to the UN Committee on Economic, Social, and Cultural Rights, midday meals are typically served in upper-caste communities, and during times of caste tensions, Dalit children are denied the meal to assert the dominance of these upper caste communities. According to the National Family Health Survey 2015-16, 39% of children are chronically undernourished.

Decentralized model – Meals prepared on-site by local cooks, self-help groups, and so on.

Centralized model – Instead of local on-site cooks, an external entity makes food and delivers it to schools in this model.

International aid – A variety of international charitable groups assist government schools.

The revised system will focus on monitoring schoolchildren's nutritional status in addition to providing healthful meals. A nutritional expert will be assigned to each school to guarantee that pupils' BMI, weight, and hemoglobin levels are checked. Special supplies for nutritious goods would be made in districts with a high prevalence of anemia. The government is also considering establishing nutrition gardens on school grounds, including student participation. Cooking competitions based on local ingredients could also be staged as part of the initiative to promote ethnic food and unique menus. The revised system will focus on monitoring

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Despite such integrated child development plans, India has serious problems such as child stunting, child mortality, child wasting, and malnutrition. The same may be said for India's ranking of 94 in the Global Hunger Index 2020. Poor diets in early childhood can lead to deficiencies in essential vitamins and nutrients – such as vitamin A deficiency, which weakens children's immunity, increases their risk of blindness and can lead to death from common childhood diseases. The meals are given once every day in school during school days. It is mandated that each child should get 450 calories (minimum). This website will help you track the calories that are required by the child. We can also know what calories are required for the child by giving details like height, weight, physical movement, age, etc. We can also add the location of the school. Additionally offered is doctor consultation.

**SOFTWARE REQUIREMENTS:**

- Operating System- Windows
- Front-End- HTML, CSS, JavaScript, PHP
- Back-End- Python, Java
- Database- MYSQL
- Server- Apache
- Technologies -Web development, ML, Image processing

**HARDWARE REQUIREMENTS:**

- Processor- Dual Core
- Hard Disk- 50GB
- Memory- 1GB RAM
- Internet Connection

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## CHAPTER 2

### LITERATURE SURVEY

#### **Existing System:**

In spite of the important function of daily stock record, it has come under severe threat that by the manual system of daily stock record keeping. This system involves taking down stocks data on piece of papers, which are then put in to the files and filed in cabinets. Another problem is the missing of pieces of information. The existing manual system has got many disadvantages. It is time consuming job. It is difficult to maintain records manually. So we go for computerization the system.

#### **Disadvantages:**

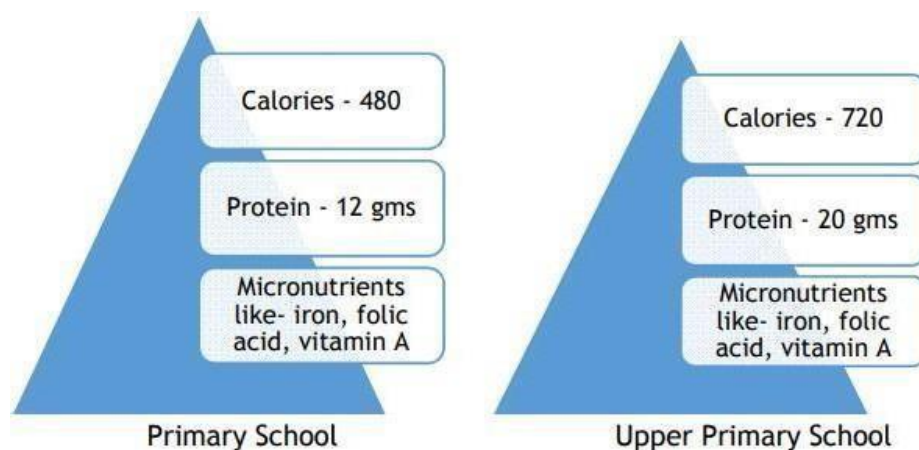
- It is time consuming and difficult to maintain records manually.
- Preparation for reports is not easy work. Maintaining information and retrieving information according to our needs is limited.
- Computerization is economical both of economy and manpower. Manually maintenance of data is tedious and sometimes information may be lost or overloaded by human.
- It is tedious to manage historical data which needs much space to keep all the previous year's ledgers, book, etc. Generating report is not a easy task in existing system.

**Proposed System:**

Increase the enrollment of students from underprivileged backgrounds in schools. Increasing enrollment leads to higher school attendance. To keep children in grades 1-8 enrolled. To give nutritional help to elementary school children in drought-affected communities. The government is also considering establishing nutrition gardens on school grounds, including student participation. Cooking competitions based on local ingredients could also be staged as part of the initiative to promote ethnic food and unique menus. The revised system will focus on monitoring schoolchildren's nutritional status in addition to providing healthful meals. Special supplies for nutritious goods would be made in districts with a high prevalence of anemia. A nutritional expert will be assigned to each school to guarantee that pupils' BMI, weight, and hemoglobin levels are checked. This website will help you track the calories that are required by the child. We can also know what calories are required for the child by giving details like height, weight, physical movement, age, etc. We can also add the location of the school. Additionally offered is doctor consultation.

**Advantages:**

- Satisfies the students' hunger: One of the main advantages of the mid-day meal scheme is that learners get free lunch and this helps them avoid hunger or starvation.
- Increases school enrolment: Due to the provision of mid-day meals, parents may desire to send their children to school which can increase the enrolment rate of the students.
- Increases school retention: Enrolling is important but retaining the students to keep coming to school is more important and mid-day meals can motivate the learners to continue schooling.
- You could monitor how much you're eating.
- You could guarantee that your diet has all the macronutrients you'll need.
- It's convenient.





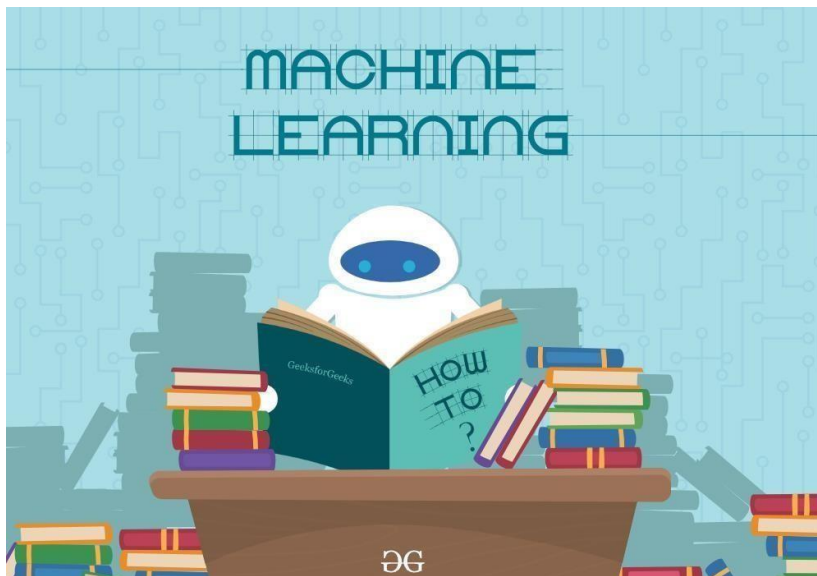
## CHAPTER 3

### METHODOLOGY

#### Machine Learning:

Machine learning is a branch of artificial intelligence (AI) and computer science which focuses on the use of data and algorithms to imitate the way that humans learn, gradually improving its accuracy. Machine learning is an important component of the growing field of data science. Through the use of statistical methods, algorithms are trained to make classifications or predictions, and to uncover key insights in data mining projects. Machine learning algorithms are typically created using frameworks that accelerate solution development.

Neural networks, or artificial neural networks (ANNs), are comprised of node layers, containing an input layer, one or more hidden layers, and an output layer. Each node, or artificial neuron, connects to another and has an associated weight and threshold. If the output of any individual node is above the specified threshold value, that node is activated, sending data to the next layer of the network. Otherwise, no data is passed along to the next layer of the network by that node. The “deep” in deep learning is just referring to the number of layers in a neural network. A neural network that consists of more than three layers—which would be inclusive of the input and the output—can be considered a deep learning algorithm or a deep neural network. A neural network that only has three layers is just a basic neural network.



## **Image processing:**

Image processing requires fixed sequences of operations that are performed at each pixel of an image. The image processor performs the first sequence of operations on the image, pixel by pixel. Once this is fully done, it will begin to perform the second operation, and so on. The output value of these operations can be computed at any pixel of the image. Image processing is the process of transforming an image into a digital form and performing certain operations to get some useful information from it. The image processing system usually treats all images as 2D signals when applying certain predetermined signal processing methods.

Visualization - Find objects that are not visible in the image. Recognition - Distinguish or detect objects in the image.

Sharpening and restoration - Create an enhanced image from the original image Pattern

recognition - Measure the various patterns around the objects in the image

Retrieval - Browse and search images from a large database of digital images that are similar to the original image.

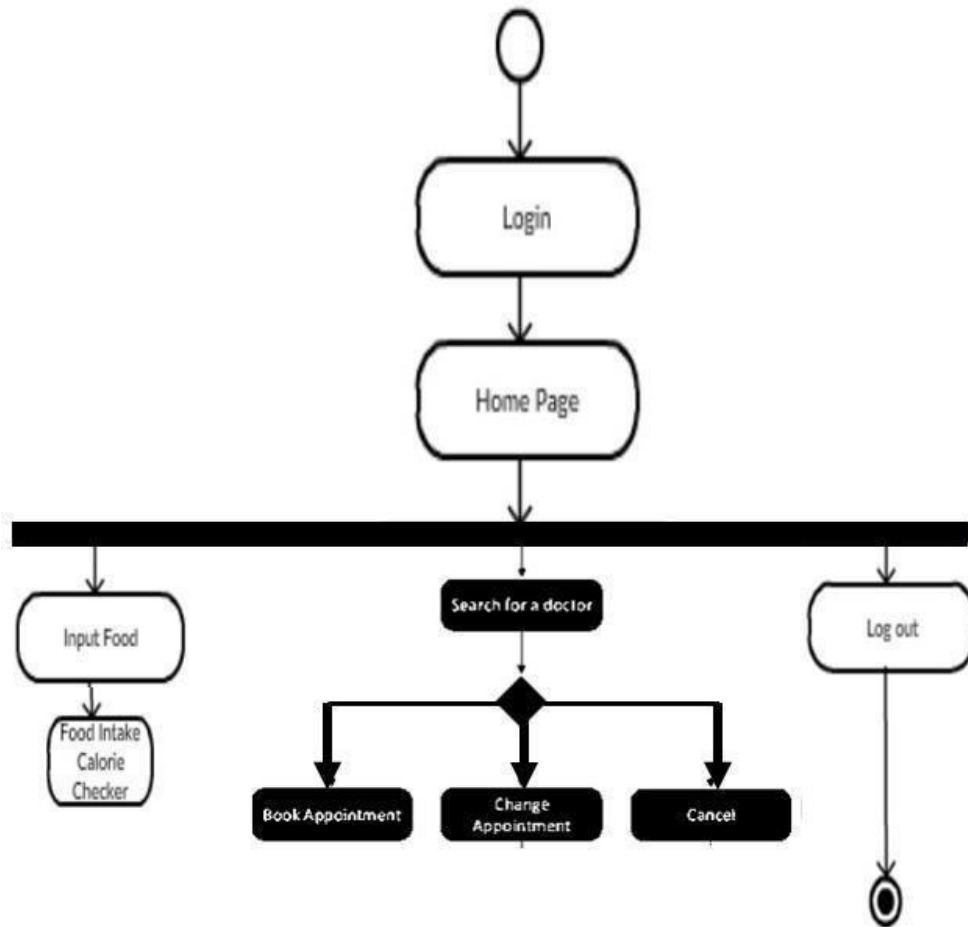
## **Database:**

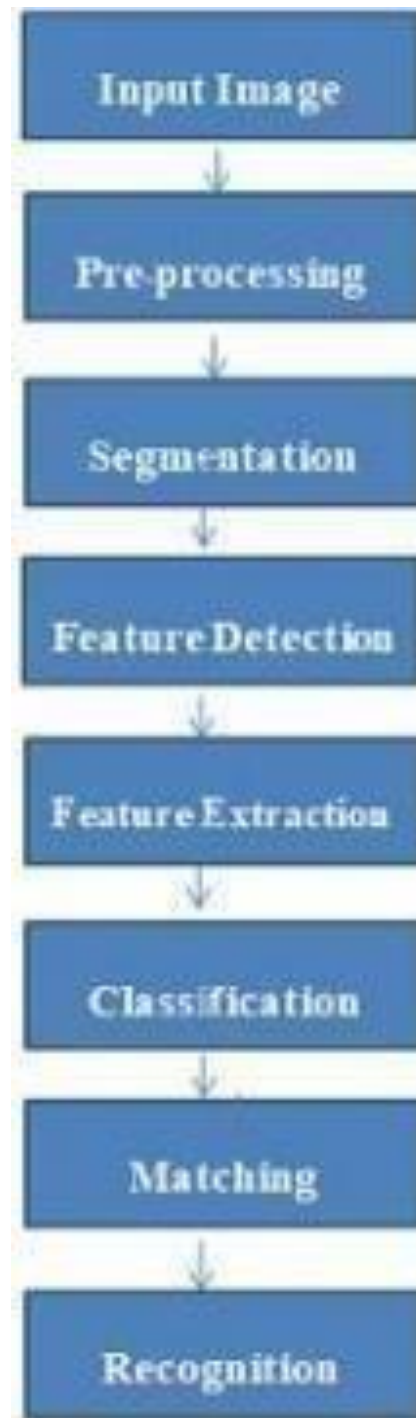
A database is an organized collection of structured information, or data, typically stored electronically in a computer system. A database is usually controlled by a database management system (DBMS). Together, the data and the DBMS, along with the applications that are associated with them, are referred to as a database system, often shortened to just database.

Data within the most common types of databases in operation today is typically modeled in rows and columns in a series of tables to make processing and data querying efficient. The data can then be easily accessed, managed, modified, updated, controlled, and organized. Most databases use structured query language (SQL) for writing and querying data.

## CHAPTER 4

### SYSTEM ARCHITECTURE





**ML Block Diagram**

## CHAPTER 5

### IMPLEMENTATION

The libraries used for implementation are:

1. Flask
2. Keras
3. Pandas
4. OS
5. NumPy
6. TensorFlow
7. Bootstrap

#### 1. Flask:

Flask is a lightweight WSGI web application framework. It is designed to make getting started quick and easy, with the ability to scale up to complex applications. It began as a simple wrapper around Werkzeug and Jinja and has become one of the most popular Python web application frameworks.

Flask offers suggestions, but doesn't enforce any dependencies or project layout. It is up to the developer to choose the tools and libraries they want to use. There are many extensions provided by the community that make adding new functionality easy.

Install and update using pip:

```
$ pip install -U Flask
```

#### 2. Keras:

Keras is an open-source high-level Neural Network library, which is written in Python is capable enough to run on Theano, TensorFlow, or CNTK. It was developed by one of the Google engineers, Francois Chollet. It is made user-friendly, extensible, and modular for facilitating faster experimentation with deep neural networks. It not only supports Convolutional Networks and Recurrent Networks individually but also their combination.

It cannot handle low-level computations, so it makes use of the Backend library to resolve it. The backend library act as a high-level API wrapper for the low-level API, which lets it run on TensorFlow, CNTK, or Theano.

Initially, it had over 4800 contributors during its launch, which now has gone up to 250,000 developers. It has a 2X growth ever since every year it has grown. Big companies like Microsoft, Google, NVIDIA, and Amazon have actively contributed to the development of Keras. It has an amazing industry interaction, and it is used in the development of popular firms likes Netflix, Uber, Google, Expedia, etc.

#### 3. Pandas:

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The first step of working in pandas is to ensure whether it is installed in the Python folder or not. If not then we need to install it in our system using pip command. Type cmd command in the search box and locate the folder using cd command where python-pip file has been installed. After locating it, type the command:

```
pip install pandas
```

After the pandas have been installed into the system, you need to import the library. This module is generally imported as:

```
import pandas as pd
```

Here, pd is referred to as an alias to the Pandas. However, it is not necessary to import the library using the alias, it just helps in writing less amount code every time a method or property is called.

Pandas generally provide two data structures for manipulating data, they are:

- a) Series
- b) Data Frame

a) Series:

Pandas Series is a one-dimensional labeled array capable of holding data of any type (integer, string, float, python objects, etc.). The axis labels are collectively called indexes. Pandas Series is nothing but a column in an excel sheet. Labels need not be unique but must be a hash able type. The object supports both integer and label-based indexing and provides a host of methods for performing operations involving the index.

<code>ser=pd.Series([Name])</code>	<code>ser=pd.Series([Team])</code>	<code>ser=pd.Series([Number])</code>
Name	Team	Number
0 Avery Bradley	a Boston Celtics	A100 0.0
1 John Holland	b Boston Celtics	B101 30.0
2 Jonas Jerebko	c Boston Celtics	C103 8.0
3 Jordan Mickey	d Boston Celtics	D104 NaN
4 Terry Rozier	e Boston Celtics	E105 12.0
5 Jared Sullinger	f Boston Celtics	F106 7.0
6 Evan Turner	g Boston Celtics	G107 11.0

b) Data Frame:

Pandas Data Frame is a two-dimensional size-mutable, potentially heterogeneous tabular data structure with labeled axes (rows and columns). A Data frame is a two-dimensional data structure, i.e., data is aligned in a tabular fashion in rows and columns. Pandas Data Frame consists of three principal components, the data, rows, and columns.

	<i>Name</i>	<i>Team</i>	<i>Number</i>	<i>Position</i>	<i>Age</i>
0	Avery Bradley	Boston Celtics	0.0	PG	25.0
1	John Holland	Boston Celtics	30.0	SG	27.0
2	Jonas Jerebko	Boston Celtics	8.0	PF	29.0
3	Jordan Mickey	Boston Celtics	NaN	PF	21.0
4	Terry Rozier	Boston Celtics	12.0	PG	22.0
5	Jared Sullinger	Boston Celtics	7.0	C	NaN
6	Evan Turner	Boston Celtics	11.0	SG	27.0

#### 4. OS:

The OS module in Python provides functions for interacting with the operating system. OS comes under Python's standard utility modules. This module provides a portable way of using operating system-dependent functionality. The `*os*` and `*os.path*` modules include many functions to interact with the file system.

#### 5. NumPy:

NumPy is a general-purpose array-processing package. It provides a high-performance multidimensional array object, and tools for working with these arrays. It is the fundamental package for scientific computing with Python. It is open-source software. It contains various features including these important ones:

- A powerful N-dimensional array object
- Sophisticated (broadcasting) functions
- Tools for integrating C/C++ and Fortran code
- Useful linear algebra, Fourier transform, and random number capabilities

Besides its obvious scientific uses, NumPy can also be used as an efficient multi-dimensional container of generic data. Arbitrary data-types can be defined using NumPy which allows NumPy to seamlessly and speedily integrate with a wide variety of databases.

##### Installation:

pip install NumPy

#### 6. TensorFlow:

TensorFlow is an end-to-end open-source platform for machine learning. It has a comprehensive, flexible ecosystem of tools, libraries, and community resources that lets researchers push the state-of-the-art in ML, and gives developers the ability to easily build and deploy ML-powered applications.

TensorFlow provides a collection of workflows with intuitive, high-level APIs for both beginners and experts to create machine learning models in numerous languages. Developers have the option to deploy models on a number of platforms such as on servers, in the cloud, on mobile and edge devices, in browsers, and on many other JavaScript platforms. This enables developers to go from model building and training to deployment much more easily.



## SOURCE CODE

### Admin.html:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <link href="https://cdn.jsdelivr.net/npm/tailwindcss@2.0.2/tailwind.min.css" rel="stylesheet">
  <title>Smart Tracker for mid-day meals</title>
</head>
<body>
  <header class="text-gray-400 bg-gray-900 body-font">
    <div class="container mx-auto flex flex-wrap p-5 flex-col md:flex-row items-center">
      <a class="flex title-font font-medium items-center text-white mb-4 md:mb-0">
        <svg xmlns="http://www.w3.org/2000/svg" fill="none" stroke="currentColor" stroke-linecap="round"
stroke-linejoin="round" stroke-width="2" class="w-10 h-10 text-white p-2 bg-green-500 rounded-full"
viewBox="0 0 24 24">
          <path d="M12 2L2 7 10 5 10 5-10 5zM2 17 10 15 10 15-10 15zM2 12 10 7 10 7-10 7Z"/>
        </svg>
        <span class="ml-3 text-xl">Smart Tracker for mid-day meals</span>
      </a>
      <nav class="md:mr-auto md:ml-4 md:py-1 md:pl-4 md:border-l md:border-gray-700 flex flex-
wrap items-center text-base justify-center">
        <a id="a" class="mr-5 hover:text-white">Home</a>
        <script type="text/javascript">
          document.getElementById("a").onclick = function () {
            location.href = "http://localhost/project/admin.html";
          };
        </script>
        <a id="b" class="mr-5 hover:text-white">Display</a>
        <script type="text/javascript">
          document.getElementById("b").onclick = function () {
            location.href = "http://localhost/project/display.php";
          };
        </script>
        <a id="d" class="mr-5 hover:text-white">Calories Tracker</a>
        <script type="text/javascript">
          document.getElementById("d").onclick = function () {
            location.href = "calculate.html";
          };
        </script>
      </nav>

      <button id="myButton" class="float-left submit-button">Logout</button>
    </div>
    <script type="text/javascript">
      document.getElementById("myButton").onclick = function () {
        location.href = "http://localhost/project/login.php";
      };
    </script>
```



```

</div>
</header>
<section class="text-gray-600 body-font">
  <div class="container px-5 py-24 mx-auto">
    <div class="xl:w-1/2 lg:w-3/4 w-full mx-auto text-center">
      <svg xmlns="http://www.w3.org/2000/svg" fill="currentColor" class="inline-block w-8 h-8 text-gray-400 mb-8" viewBox="0 0 975.036 975.036">
        <path d="M925.036 57.197h-304c-27.6 0-50 22.4-50 50v304c0 27.601 22.4 50 50 50h145.5c1.9 79.601-20.4 143.3-55.4 191.2-27.6 37.8-69.399 69.1-125.3 93.8-25.7 11.3-36.8 41.7-24.8 67.101136 76c11.6 24.399 40.3 35.1 65.1 24.399 66.2-28.6 122.101-64.8 167.7-108.8 55.601-53.7 93.7-114.3 114.3-181.9 20.601-67.6 30.9-159.8 30.9-276.8v-239c0-27.599-22.401-50-50-50zM106.036 913.497c65.4-28.5 121-64.699 166.9-108.6 56.1-53.7 94.4-114.1 115-181.2 20.6-67.1 30.899-159.6 30.899-277.5v-239c0-27.6-22.399-50-50-50h-304c-27.6 0-50 22.4-50 50v304c0 27.601 22.4 50 50 50h145.5c1.9 79.601-20.4 143.3-55.4 191.2-27.6 37.8-69.4 69.1-125.3 93.8-25.7 11.3-36.8 41.7-24.8 67.101135.9 75.8c11.601 24.399 40.501 35.2 65.301 24.399z"></path>
      </svg>
      <p class="leading-relaxed text-lg">These meals are given once a day in school during school days. It is mandated that each child should get 450 calories and 12 grammes of protein at the primary level and 700 calories and 20 grammes of protein at the upper primary level per day.
        This website assists in monitoring both the physical and nutritional health of each child. Additionally offered is doctor consultation.
      </p>
      <span class="inline-block h-1 w-10 rounded bg-indigo-500 mt-8 mb-6"></span>
      <h2 class="text-gray-900 font-medium title-font tracking-wider text-sm">ABCD</h2>
    </div>
  </div>
</section>
<section class="text-gray-600 body-font relative">
  <div class="container px-5 py-24 mx-auto">
    <div class="flex flex-col text-center w-full mb-12">
      <h1 class="sm:text-3xl text-2xl font-medium title-font mb-4 text-gray-900">Feedback</h1>
    </div>
    <div class="lg:w-1/2 md:w-2/3 mx-auto">
      <div class="flex flex-wrap -m-2">
        <div class="p-2 w-1/2">
          <div class="relative">
            <label for="name" class="leading-7 text-sm text-gray-600">Name</label>
            <input type="text" id="name" name="name" class="w-full bg-gray-100 bg-opacity-50 rounded border border-gray-300 focus:border-indigo-500 focus:bg-white focus:ring-2 focus:ring-indigo-200 text-base outline-none text-gray-700 py-1 px-3 leading-8 transition-colors duration-200 ease-in-out" spellcheck="false" data-ms-editor="true">
          </div>
        </div>
        <div class="p-2 w-1/2">
          <div class="relative">
            <label for="email" class="leading-7 text-sm text-gray-600">Email</label>
            <input type="email" id="email" name="email" class="w-full bg-gray-100 bg-opacity-50 rounded border border-gray-300 focus:border-indigo-500 focus:bg-white focus:ring-2 focus:ring-indigo-200 text-base outline-none text-gray-700 py-1 px-3 leading-8 transition-colors duration-200 ease-in-out">
          </div>
        </div>
      </div>
    </div>
  </div>
</section>

```

MALLAREDDY ENGINEERING COLLEGE FOR WOMEN, AUTONOMOUS INSTITUTION, UGC, GOVT OF INDIA

```

<svg xmlns="http://www.w3.org/2000/svg" fill="none" stroke="currentColor" stroke-linecap="round"
stroke-linejoin="round" stroke-width="2" class="w-10 h-10 text-white p-2 bg-green-500 rounded-full"
viewBox="0 0 24 24">
  <path d="M12 2L2 7l10 5 10-5 10-5zM2 17l10 5 10-5zM2 12l10 5 10-5"></path>
</svg>
<span class="ml-3 text-xl">Smart Tracker</span>
</a>
<p class="text-sm text-gray-400 sm:ml-4 sm:pl-4 sm:border-l-2 sm:border-gray-800 sm:py-2 sm:mt-0 mt-4">© 2022 Smart Tracker
  <a href="https://twitter.com/knyttneve" class="text-gray-500 ml-1" target="_blank" rel="noopener
norereferrer">@ @ @ @ @ @ @ @</a>
</p>
<span class="inline-flex sm:ml-auto sm:mt-0 mt-4 justify-center sm:justify-start">
  <a class="text-gray-400">
    <svg fill="currentColor" stroke-linecap="round" stroke-linejoin="round" stroke-width="2" class="w-5
h-5" viewBox="0 0 24 24">
      <path d="M18 2h-3a5 5 0 0-5 5v3H7v4h3v8h4v-8h3l1-4h-4V7a1 1 0 01-1h3z"></path>
    </svg>
  </a>
  <a class="ml-3 text-gray-400">
    <svg fill="currentColor" stroke-linecap="round" stroke-linejoin="round" stroke-width="2" class="w-5
h-5" viewBox="0 0 24 24">
      <path d="M23 3a10.9 10.9 0 01-3.14 1.53 4.48 4.48 0 00-7.86 3v1A10.66 10.66 0 013 4s-4 9 5
13a11.64 11.64 0 01-7 2c9 5 20 0 20-11.5a4.5 4.5 0 00-.08-.83A7.72 7.72 0 0023 3z"></path>
    </svg>
  </a>
  <a class="ml-3 text-gray-400">
    <svg fill="none" stroke="currentColor" stroke-linecap="round" stroke-linejoin="round" stroke-
width="2" class="w-5 h-5" viewBox="0 0 24 24">
      <rect width="20" height="20" x="2" y="2" rx="5" ry="5"></rect>
      <path d="M16 11.37A4 4 0 112.63 8 4 4 0 0116 11.37zm1.5-4.87h.01"></path>
    </svg>
  </a>
  <a class="ml-3 text-gray-400">
    <svg fill="currentColor" stroke="currentColor" stroke-linecap="round" stroke-linejoin="round" stroke-
width="0" class="w-5 h-5" viewBox="0 0 24 24">
      <path stroke="none" d="M16 8a6 6 0 016 6v7h-4v-7a2 2 0 00-2-2 2 2 0 00-2 2v7h-4v-7a6 6 0 016-
6zM2 9h4v12H2z"></path>
      <circle cx="4" cy="4" r="2" stroke="none"></circle>
    </svg>
  </a>
</span>
</div>
</footer>
</body>
</html>

```

## Index.html:

```

<!DOCTYPE html>
<html>
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">

```

```
<title>Prediction</title>

<!-- Compiled and minified CSS -->
<link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/materialize/1.0.0/css/materialize.min.css">

<link href="https://stackpath.bootstrapcdn.com/font-awesome/4.7.0/css/font-awesome.min.css"
rel="stylesheet"
  integrity="sha384-
wvfXpqpZZVQGK6TAh5PVlGOfQNHSoD2xbE+QkPxCAFINEevoEH3Sl0sibVcOQVnN"
crossorigin="anonymous">
  <link
    href="https://fonts.googleapis.com/css2?family=Roboto:wght@100;400&display=swap"
    rel="stylesheet"
  />

<style>
  body {
    font-family: "Roboto", sans-serif;
  }
  h1 {
    text-align: center;
  }
  table,
  form {
    width: 500px;
    margin: 20px auto;
  }
  table {
    border-collapse: collapse;
    text-align: center;
  }
  table td,
  table th {
    border: solid 1px black;
  }
  label,
  input {
    display: block;
    margin: 10px 0;
    font-size: 20px;
  }
  button {
    display: block;
  }
  body {
    background-image:
url("https://i.pinimg.com/originals/fd/d1/a5/fdd1a5c38f98d18b6d0e0e81cecbd44b.jpg");
    background-repeat: no-repeat;
    background-attachment: fixed;
    background-size: 100% 100%;
  }
</style>
</head>
```

```

<body>
<nav>
  <div class="nav-wrapper black">
    <div class="container">
      <a href="#" class="brand-logo center">Food Classification</a>
      <ul>
        <li>
          <a id="@ " class="clear-btn btn #C3B1E1">Home</a>
          <script type="text/javascript">
            document.getElementById("&").onclick = function () {
              location.href = "http://localhost/smart/home.html";
            };
          </script>
        </li>
      </ul>
    </div>
  </div>
</nav>
<br>
<br>
<br>
<br>
<br>
<br>
<br>
<div class="login">
  <form action = "/out" method = "POST" enctype="multipart/form-data">
<h3>Click on the "Choose File" button to upload a file:</h3>

  <input type="file" name="image" accept=".png, .jpg, .jpeg">
  <br>
  <br>
<button type="submit" style="height:30px;width:200px">Predict</button>
<br>
</form>

</div>

</body>
</html>

```

### App.py:

```

from flask import Flask, render_template, request
from keras.preprocessing import image
from keras.models import load_model
import pandas as pd
from os.path import join, dirname, realpath
import numpy as np
import tensorflow
from werkzeug.utils import secure_filename

```

---

```
app = Flask(__name__)

model = load_model('Model.h5')
UPLOAD_FOLDER = "uploads"
@app.route('/')
def home():
    return render_template("home.html")

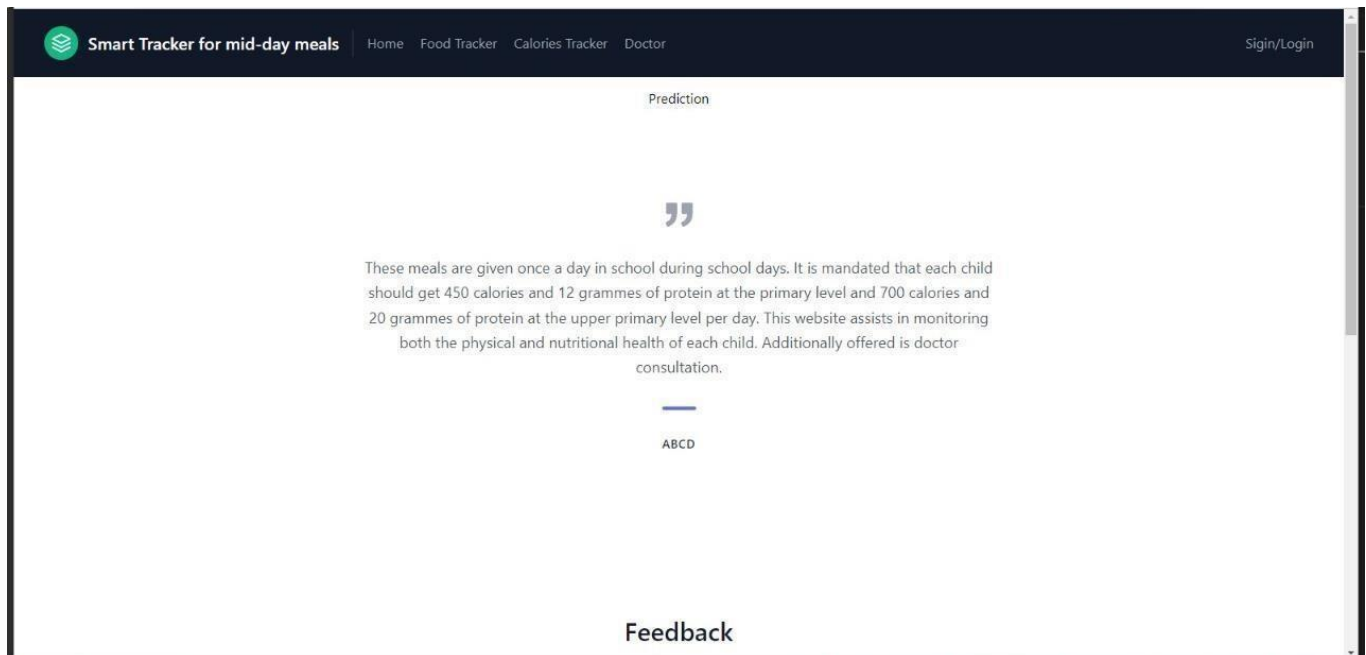
@app.route('/pred')
def predict():
    return render_template("index.html")

@app.route('/out', methods=["GET", "POST"])
def output():
    class_labels = ['burger',
                    'butter_naan',
                    'chai',
                    'chapati',
                    'chole_bhature',
                    'dal_makhani',
                    'dhokla',
                    'fried_rice',
                    'idli',
                    'jalebi',
                    'kaathi_rolls',
                    'kadai_paneer',
                    'kulfi',
                    'masala_dosa',
                    'momos',
                    'paani_puri',
                    'pakode',
                    'pav_bhaji',
                    'pizza',
                    'samosa' ]
    file = request.files["image"]
    UPLOADS_PATH = join(dirname(realpath(__file__)), 'static/uploads/..')
    print(UPLOADS_PATH)
    file.save(UPLOADS_PATH)
    img = tensorflow.keras.utils.load_img(UPLOADS_PATH, color_mode = "rgb",
    target_size=(299,299,3))
    x = tensorflow.keras.utils.img_to_array(img)
    x = np.expand_dims(x, axis = 0)
    x /= 255

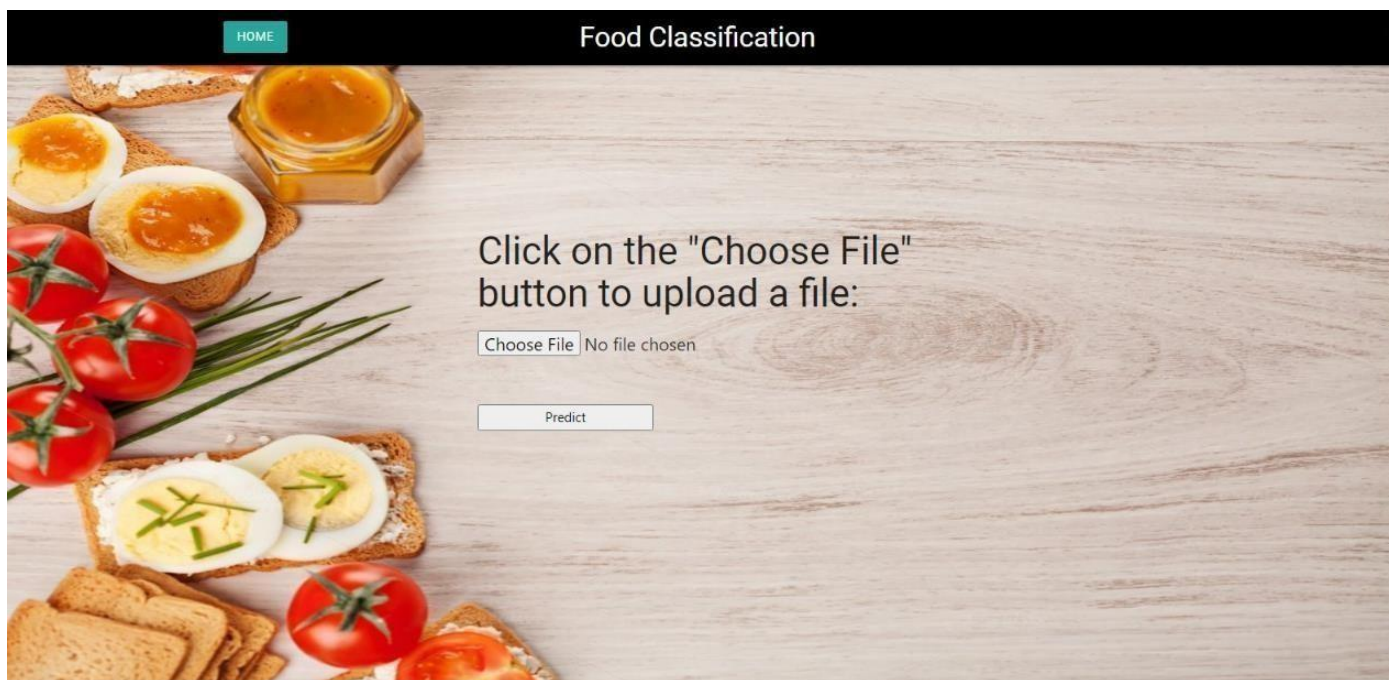
    pred = model.predict(x)
    pred = pred[0]
    label = class_labels[pred.argmax()]
    y1 = "It is a : " + label
    return render_template("output.html",y = y1)
if __name__ == '__main__':
    app.run(debug = True)
```

## CHAPTER 6

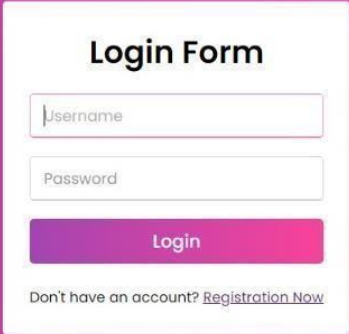
### OUTPUT SCREEN



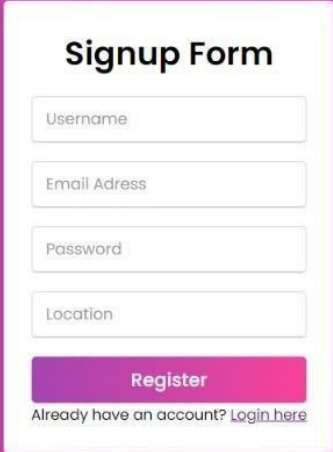
**Fig1: Home Page**



**Fig2: Food Classification**



The Login Form is centered on a pink-to-purple gradient background. It features a white box with a purple shadow. Inside the box, the title "Login Form" is at the top. Below it are two input fields: "Username" and "Password". A purple "Login" button is positioned below the password field. At the bottom of the box, there is a link: "Don't have an account? [Registration Now](#)".

**Fig3: Login Page**

The Signup Form is centered on a pink-to-purple gradient background. It features a white box with a purple shadow. Inside the box, the title "Signup Form" is at the top. Below it are four input fields: "Username", "Email Address", "Password", and "Location". A purple "Register" button is positioned below the location field. At the bottom of the box, there is a link: "Already have an account? [Login here](#)".

**Fig 4: Signup Page**



[HOME](#)

Food Tracker

Food item

Meal  
dosa

Calories  
300

Quantity  
3

Date  
05-12-2022

Select a time:  
08:14

Submit

**Fig 5: Food Tracker**

Calorie Required

[Home](#)

Age  
8

Gender  
☐ Male ☒ Female

Weight  
30

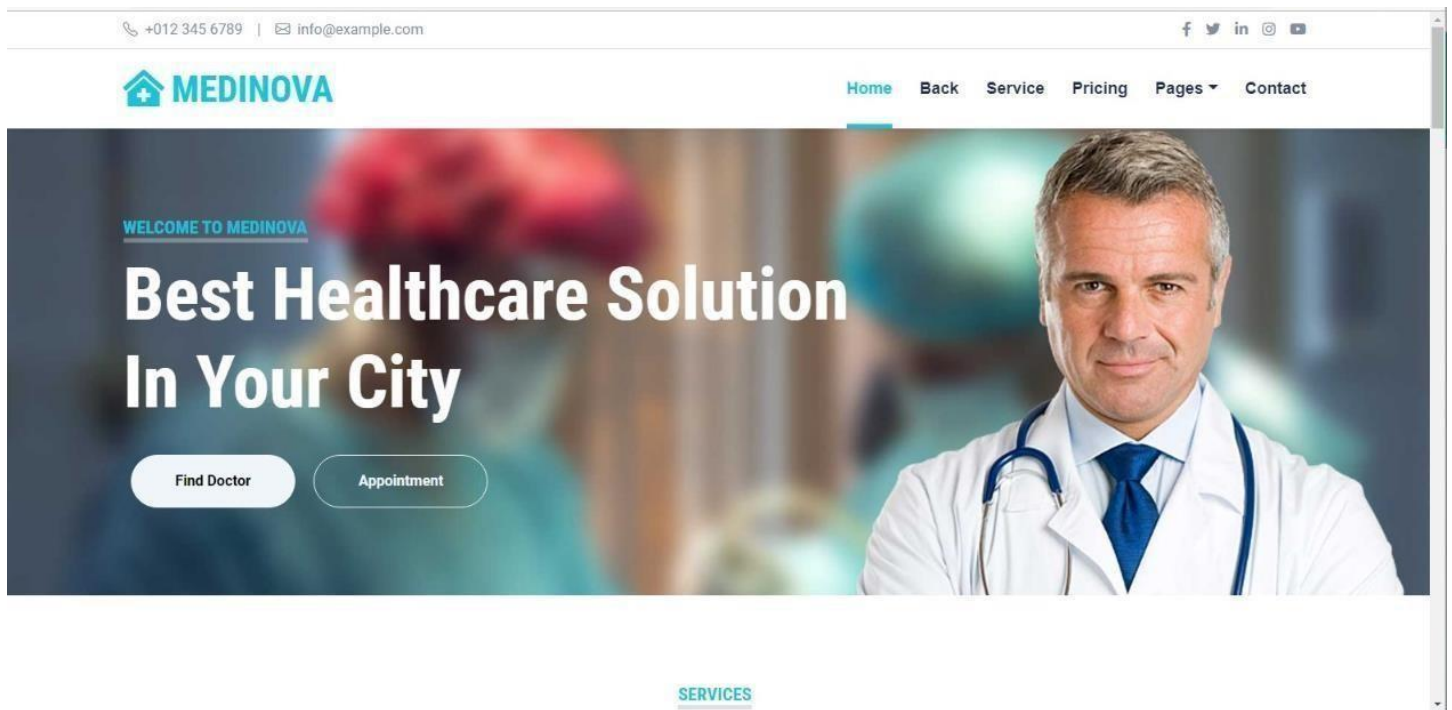
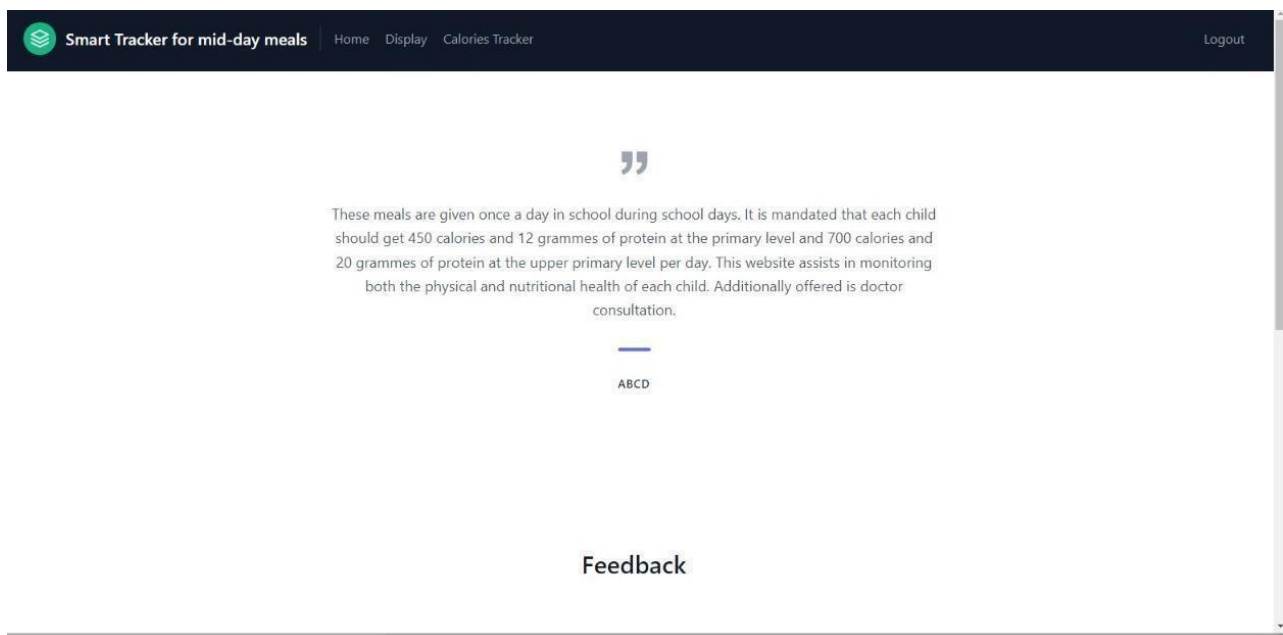
Height  
134

Activity  
Lightly active (light exercise/sports 1-3 days/week)

Calculate

Total Calories  
1584.5252500000004

**Fig 6: Calorie Tracker**

**Fig 7: Doctor Appointment****Fig 8: Inspector Page**

HOME		Display		
Meal Name	Calories	Quantity	Date	Time
Rice	130	100	2022-11-14	12:36:00.000
Dal	200	20	2022-11-15	12:12:00.000
Dal	300	10	2022-11-16	12:57:00.000
Paneer	400	20	2022-11-16	12:59:00.000
Dosa	234	20	2022-11-21	07:32:00.000
dosa	200	2	2022-12-04	07:13:00.000
dosa	300	3	2022-12-05	08:14:00.000

**Fig 9: Display**

## **CHAPTER 7**

### **CONCLUSION & FUTURE SCOPE**

The Mid-Day Meal scheme is one the most-beautifully designed program. It is one of its kinds in fulfilling basic requiems of providing nutritious food and basic education which is bare necessity of life. There is no-doubt that this scheme has been successful to some extent and has been of significant help in increasing the school enrollment ratio in primary schools. However, the quality of attendance is not as good as it was expected because there are many loopholes that have been identified by the management concerned. To utilize and reap the benefits this scheme to its fullest potential, the concerned officials are required to address and come-up with proper and effective implementations. If done properly, this scheme can help India achieve the golden nutrition and literacy rate in a considerable span of time.

Healthy food does not have merely one but numerous benefits. It helps us in various spheres of life. Healthy food does not only impact our physical health but mental health too.

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