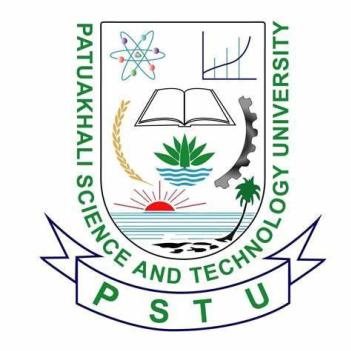
**PATUAKHALI SCIENCE AND TECHNOLOGY UNIVERSITY**

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**COURSE CODE CCE-224**

**SUBMITTED TO:**

**Prof. Dr. Md Samsuzzaman sobuz**

**Department of Computer and Communication**

**Engineering**

**Faculty of Computer Science and Engineering**

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**Project Title**

**FitFoods: Personalized Diet and Nutrition Assistant**

# ****Project Description****

**FitFoods** is a web-based personalized diet and nutrition assistant designed to help users understand and meet their daily nutritional requirements. By analyzing a user's **weight**, the platform calculates the optimal intake of **essential nutrients**, including **vitamins**, **proteins**, and **calcium**. The system provides **personalized dietary recommendations**, suggests **seasonal healthy foods**, and offers **visual food guidance** using images. With a user-friendly interface and simplified nutritional information, the project aims to promote healthier lifestyles through **data-driven dietary suggestions**.

# ****Objective of the Project****

* To develop a **personalized nutritional recommendation system** based on user weight.
* To educate users about their **daily nutrient needs** in a simplified and engaging way.
* To recommend **healthy, seasonal foods** with visual aids.
* To perform accurate **nutrient calculations** using a structured nutrient database.
* To offer a complete **frontend and backend integrated solution** with proper data management.

# ****Beneficiary of the Project****

* **General users** looking to improve their diet and nutrition.
* **Health-conscious individuals** who want personalized food advice.
* **Fitness trainers** and **dietitians** who need quick tools for nutrient estimation.
* **Students and researchers** studying health and nutrition systems.

# ****Existing Project Work Problem****

* Many current nutrition platforms are **generic** and lack **personalization**.
* Users often receive **incomplete** or **complex data**, making it hard to make healthy choices.
* There is limited **integration of seasonal food suggestions**.
* Few platforms provide **interactive interfaces** with visual guidance.

# ****Why Do You Choose This Project****

* Nutrition plays a **vital role in health**, and there is a growing demand for **smart dietary tools**.
* This project combines **healthcare and technology**, two highly impactful fields.
* It offers a **practical, real-world solution** to a common problem.
* It provides an opportunity to practice **full-stack web development** using HTML, CSS, JavaScript, PHP, and MySQL.

**Flowchart of Your Project**

Start

↓

User Inputs Weight

↓

Nutrient Requirement Calculation

↓

Fetch Data from Database

↓

Personalized Diet Suggestions + Food Images

↓

Output

↓

End

**ER Diagram of Your Project**

+----------------+ +--------------------+ +------------------+

| Users | | Nutrients | | Food Suggestions |

+----------------+ +--------------------+ +------------------+

| user\_id (PK) | | nutrient\_id (PK) | | food\_id (PK) |

| weight | | name | | name |

| age | | unit | | season |

| gender | | recommended\_value | | image\_url |

+----------------+ +--------------------+ | nutrient\_id (FK) |

|  |
| --- |
|  |

**Tools You Will Be Used in Your Project Development**

* **Frontend**: HTML, CSS, JavaScript
* **Backend**: PHP
* **Database**: MySQL
* **Server**: XAMPP (Apache, MySQL, PHP)
* **Development Environment**: Visual Studio Code

**Output of the Project**

* A fully functional website that:
  + Accepts user input (weight)
  + Calculates required intake of nutrients
  + Displays personalized food and nutrition suggestions
  + Shows seasonal food items with images
  + Provides an intuitive and responsive user experience

**Gantt Chart of the Project**

| **Task** | **Week 1** | **Week 2** | **Week 3** | **Week 4** | **Week 5** | **Week 6** |
| --- | --- | --- | --- | --- | --- | --- |
| Requirement Analysis | ✔ |  |  |  |  |  |
| UI Design |  | ✔ |  |  |  |  |
| Frontend Development |  | ✔ | ✔ |  |  |  |
| Backend Development (PHP) |  |  | ✔ | ✔ |  |  |
| MySQL Database Setup |  |  | ✔ |  |  |  |
| Integration and Logic Build |  |  |  | ✔ | ✔ |  |
| Testing and Debugging |  |  |  |  | ✔ | ✔ |
| Final Deployment |  |  |  |  |  | ✔ |