A

MINI PROJECT REPORT

ON

“TiffinServiceFinder”

SUBMITTED
TO

SAVITRIBAI PHULE PUNE UNIVERSITY

IN PARTIAL FULFILLMENT OF
MASTERS OF COMPUTER APPLICATION
(MCA)

SUBMITTED BY
Shivtej Dipak Pawar

UNDER THE GUIDENCE OF
Prof. Pravin S. Pawade

Akole Taluka Education Society’s

AGASTI INSTITUTE OF MANAGEMENT, COMPUTER APPLICATION AND RESEARCH (AIMCAR), AKOLE

2025-2026

साहसे श्रीः प्रतिवसति!
Akole Taluka Education Society's
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- PUN Code **IMMA019040**; AISHE Code **C-45865**
- Accrediated by NAAC '**B**' Grade

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DATE: / /2025

CERTIFICATE

TO WHOM SO EVER IT MAY CONCERN

This is to certify that, ***MR. PAWAR SHIVTEJ DIPAK*** student of ***M.C.A. Sem. I, Seat No.10797***, has successfully completed his/her academic ***MINI PROJECT*** in the Institute ***AKOLE TALUKA EDUCATION SOCIETY'S AGASTI INSTITUTE OF MANAGEMENT, COMPUTER APPLICATION AND RESEARCH (AIMCAR), AKOLE*** from September 2025 to November 2025.

He/ She has submitted the mini project report entitled on ***"TIFFIN SERVICE FINDER"*** in the partial fulfillment of the requirement of M.C.A. degree course, affiliated to the Savitribai Phule Pune University, Pune.

We wish him / her all the best for his future endeavors.

PROF. PRAVIN S. PAWADE
PROJECT GUIDE

INTERNAL EXAMINER

DECLARATION

I, hereby declare that, the **Mini Project Report** entitled **"_TiffinServiceFinder"** submitted for the award of the Degree of **Master In Computer Application** under the faculty **Commerce and Management** of **Savitribai Phule Pune University, Pune** is an outcome of my own efforts and a genuine research work done under the guidance of **Prof. Pravin S. Pawade**. I also declare that, this Mini Project Report or any part therein has not been previously submitted by me for the award of any Degree, Diploma, Associateship, Fellowship or Title this or any other University or any other Institution of Higher Learning.

I, further declare that the material obtained from other sources has been duly acknowledged.

Place : Akole
Date : __ / __ / 2025 **Name of student**

ACKNOWLEDGEMENT

This Mini project report is a fruitful outcome of experiences, challenges, and relationships involving many great people to whom I am more indebted than I can possibly acknowledge. Some of them, however, deserve special thanks. I take this opportunity with much pleasure to thank all, who directly and indirectly contributed, helped me for this Mini Project.

I, take this opportunity to express my deep sense of gratitude and indebtedness to my research guide Prof. Pravin S. Pawade *for his keen interest, dynamic guidance and constant encouragement.*

I, express deep sense of gratitude to ***ATES's Agasti Institute of Management, Computer Application and Resrarch (AIMCAR), Akole*** *for his continuous encouragement and support to complete this Mini Project Report.*

I, owe sincere thanks to Prof. Amol B. Nawale and Prof. SANKET C. DHAWALE for their stimulating support to complete this Mini Project Report.

Place : Akole

Date : __ / __ /2025 **Name of student**

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9		**Bibliography**
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11		**Appendix–Cost sheet, Data sheet**
12		**User Manual**(All screens with proper description/purpose Details About validations related to data to be entered.)

1. Introduction

In today's fast-paced lifestyle, many individuals such as students, working professionals, and migrants struggle to find healthy, affordable, and home-style food on a daily basis. Due to busy schedules and lack of access to home-cooked meals, the demand for reliable tiffin services has increased significantly. However, finding suitable tiffin services based on location, food preferences, and quality remains a challenging task.

The Tiffin Service Finder is a web-based application designed to simplify the process of discovering nearby tiffin services efficiently. The system allows users to search and explore tiffin service providers based on location, specialization (such as vegetarian, non-vegetarian, Jain food, etc.), and other relevant criteria. It bridges the gap between customers and tiffin service providers by offering a centralized and user-friendly platform**.**

1.1 Company Profile / Institute Profile / Client Profile

Institute Profile

This project is developed as a part of the **Master of Computer Applications (MCA) – First Year** academic curriculum. The project is carried out under the guidance of experienced faculty members to provide students with practical exposure to web application development, database management, and real-world problem-solving.

The institute focuses on providing quality technical education by combining theoretical knowledge with hands-on project work. Through this project, students enhance their skills in programming, data preprocessing, model building, evaluation, and web-based deployment.

Client Profile (Academic Purpose)

The client for this project is considered to be the **academic institute itself**. The system is designed purely for educational and demonstration purposes to showcase how web-based applications can solve real-life problems such as finding reliable and affordable tiffin services..

The project is not developed for commercial use but aims to serve as a learning model that can be further enhanced and adapted for real-world healthcare applications.

1.2 Abstract

The **Tiffin Service Finder** is a web-based application developed to help users easily find suitable tiffin services based on their location, preferences, and requirements. With the increasing number of working professionals, students, and individuals living away from home, the demand for reliable and hygienic home-style food services has grown significantly. Finding an appropriate tiffin service manually can be time-consuming and inefficient.

This project provides a centralized platform where tiffin service providers can register their services, and users can search for available tiffin services based on city, location, and specializations. The system is developed using modern web technologies with a structured backend and database to manage users, service providers, locations, and food specializations efficiently.

The application supports essential features such as user registration and login, service listing, search and filtering options, and secure data management. The backend handles data storage and retrieval, while the frontend ensures a user-friendly and responsive interface. The project focuses on implementing CRUD operations, relational database design, and role-based access control.

The **Tiffin Service Finder** demonstrates how web applications can solve real-world problems by improving accessibility and convenience for users while providing service providers with better visibility. The system serves as an educational project and can be further enhanced with features such as online ordering, ratings, reviews, and payment integration.

1.3.1 Existing System

In the existing system, people generally find tiffin services through manual methods such as word-of-mouth, local advertisements, pamphlets, or by physically visiting nearby areas. Users rely on recommendations from friends, neighbors, hostels, or shopkeepers to locate tiffin service providers. There is no centralized platform available to compare different tiffin services based on location, food quality, or specialization.

This traditional approach is time-consuming and inefficient, especially for students and working professionals who have limited time. Service availability, menu details, pricing, and contact information are often incomplete or outdated. Additionally, new or small tiffin service providers face difficulty in reaching potential customers due to the lack of an online presence.

Limitations of the Existing System

- Manual analysis is time-consuming
- No centralized platform for tiffin services
- Limited information about menu, pricing, and specializations
- Lack of automated and early risk prediction
- Not easily accessible for common users

1.3.2 Need for the Proposed System

The proposed Tiffin Service Finder System is required to overcome the limitations of the existing manual system of finding tiffin services. With the increasing number of students, working professionals, and people living away from home, there is a growing need for a quick, reliable, and centralized platform to locate suitable tiffin services.

Advantages of the Proposed System

- Centralized platform for finding tiffin services
- Quick and efficient search based on location
- Easy comparison of multiple tiffin services
- User-friendly and easily accessible

- Saves time and effort for users

1.4 Scope of the System

The scope of the **Tiffin Service Finder System** defines the functionalities and boundaries of the project. The system focuses on providing a centralized online platform to help users find suitable tiffin services based on their location and food preferences.

Scope of the Proposed System

- The system allows users to search for available tiffin services based on location.
- Users can view details such as service name, address, contact information, and food specialization.
- Tiffin service providers can register and manage their service details.
- The system helps users compare multiple tiffin services easily.
- A web-based interface provides easy access for both users and service providers.
- The system improves visibility for local tiffin service businesses.
- The project is designed for educational and academic purposes.
- The system can be enhanced with features like ratings, reviews, and online subscriptions in the future.

Limitations of the Scope

- The system does not support online payment functionality.
- Real-time delivery tracking is not included.
- The accuracy of service information depends on the data provided by service owners.

1.5 Operating Environment – Hardware and Software

The operating environment defines the hardware and software requirements needed to develop and run the **Tiffin Service Finder System** efficiently.

1.5.1 Hardware Requirements

The system does not require high-end hardware and can run on a standard personal computer.

- **Processor:** Intel Core i3 or higher
- **RAM:** Minimum 8 GB
- **Hard Disk:** Minimum 20 GB free space
- **Input Devices:** Keyboard, Mouse
- **Output Devices:** Monitor

1.5.2 Software Requirements

The following software is required for the development and execution of the system:

- **Operating System:** Windows 10 / Linux (Ubuntu, openSUSE)
- **Programming Language:** PHP

- **Framework:** CodeIgniter 4
- **Database:** PostgreSQL
- **Web Server:** Apache (XAMPP / WAMP)
- **Frontend Technologies:** HTML, CSS, JavaScript, Bootstrap
- **Development Tool:** Visual Studio Code
- **Browser:** Google Chrome / Mozilla Firefox

1.6 Brief Description of Technology Used

The Tiffin Service Finder System is developed using modern web-based technologies to provide an efficient and user-friendly platform for searching and managing tiffin services. The system is built using the PHP programming language with the CodeIgniter 4 framework, which follows the MVC (Model–View–Controller) architecture. This ensures better code organization, scalability, and maintainability.

The backend database is implemented using PostgreSQL, a powerful and reliable relational database management system. The frontend interface is designed using HTML, CSS, JavaScript, and Bootstrap, ensuring responsiveness and ease of use across different devices. The system is deployed and tested in a local server environment using Apache.

1.6.1 Operating System Used

The system is developed and executed on the **Windows Operating System**, which provides a stable environment for web application development and database management..

- **Operating System:** Windows 10
- **Alternative Support:** Linux (Unix-based systems)

The project can run on both Windows and Unix-based systems without major changes.

1.6.2 RDBMS / NoSQL Used to Build Database

The **PostgreSQL Relational Database Management System (RDBMS)** is used to store and manage application data. The database handles structured data related to users, tiffin service providers, locations, specializations, and authentication details.

- **Database:** PostgreSQL
- **Reason for Choosing PostgreSQL:**
    - Open-source and highly secure
    - Supports complex queries and relationships
    - High performance and scalability
    - Suitable for real-world web applications

2. Proposed System

The proposed system is the Tiffin Service Finder, a web-based application designed to help users easily find and connect with nearby tiffin service providers. The system aims to simplify the process of searching for affordable and reliable home-made food services based on user location, preferences, and service availability.

2.1 Study of Similar Systems

Before developing the **Tiffin Service Finder System**, several existing systems and research studies were reviewed to understand current methodologies and technologies used in heart disease prediction.

1. Existing Systems

- **Manual Search Methods:**
  Users generally search for tiffin services through word-of-mouth, local contacts, notice boards, or social media groups. This process is unorganized, time-consuming, and often unreliable.
- **Online Food Delivery Platforms:**
  Some food delivery apps provide meal subscription options. However, these platforms mainly focus on restaurants rather than home-style tiffin services. They often lack detailed information about local tiffin providers and customization options.
- **Social Media & Classified Platforms:**
  Platforms like WhatsApp groups, Facebook pages, or classified websites are used by tiffin providers to advertise services. These platforms do not offer structured search, filtering, or verified information.

2. Examples from Research

- **Study 1: Local Service Finder Applications**
  o Focused on connecting users with nearby service providers
  o Used location-based search and categorized listings
  o Limitation: Lack of service-specific customization
- **Study 2: Food Subscription Management Systems**
  o Provided weekly or monthly meal plans
  o Included user registration and provider dashboards
  o Limitation: Mainly restaurant-based, not home-style tiffins

- **Study 3: Web-Based Directory Systems**
  o Maintained centralized service listings
  o Enabled admin-controlled data management
  o Limitation: No real-time availability or personalization.

3. Comparison to Proposed System

Feature	Existing Systems	**Proposed System**
Search Method	Manual search, social media, word-of-mouth	Location-based and category-based search
User Interface	Not interactive	Web-based interface (Streamlit)
Real-time Input	Limited	User can input data directly
Deployment	Usually research only	Deployed as a web application
Accuracy	80–87%	Optimized using GridSearchCV and feature selection

4. Conclusion

The review of similar systems shows that existing methods for finding tiffin services are mostly manual, unorganized, and time-consuming. Users often depend on personal contacts or social media platforms, which do not provide reliable or complete information.

2.2 Feasibility Study

A feasibility study is conducted to determine whether the proposed Tiffin Service Finder system can be successfully developed and implemented within technical, financial, and operational constraints.

2.2.1 Technical Feasibility

- • The system is developed using **PHP (CodeIgniter 4 framework)**, which is widely used for web application development.
  • **PostgreSQL** is used as the database for storing user, tiffin service, location, and specialization data.
  • Frontend technologies such as **HTML, CSS, JavaScript, and Bootstrap** are used for building a responsive user interface.
  • The project can be deployed and run on commonly available systems.
- Conclusion: The project is technically feasible and can be implemented using available resources.

2.2.2 Operational Feasibility

- Users can easily search for tiffin services through a simple and interactive web interface.
- The system provides **instant predictions**, making it user-friendly.

- The application can be deployed locally or on a server for wider accessibility.
- The system does not require specialized knowledge to operate.
- Conclusion: The system is operationally feasible and suitable for academic and demonstration purposes.

2.2.3 Economic / Financial Feasibility

- The project uses open-source technologies such as PHP, CodeIgniter 4, PostgreSQL, and Bootstrap, which reduces development cost..
- Hardware requirements are minimal and already available in most lab environments.
- No additional licensing or subscription is required.
- Conclusion: The system is economically feasible and cost-effective.

2.2.4 Overall Feasibility

Considering technical, operational, and economic factors, the **Tiffin Service Finder System** is highly feasible as an academic project. The system can be successfully implemented using available resources, provides practical utility, and serves as an effective learning platform for MCA students.

2.3 Objectives of Proposed System

The main objective of the **Tiffin Service Finder System** is to develop a reliable, user-friendly, and centralized platform that helps users easily find and manage tiffin services based on location and preferences.:

1. **Easy Search and Discovery:**
   To allow users to search for nearby tiffin services quickly and efficiently.
2. **Centralized Information:**
   To store and manage tiffin service details such as address, contact information, and specializations in a structured database.
3. **User-Friendly Interface:**
   To provide a simple and responsive web-based interface for users and administrators.
4. **Efficient Data Management:**
   To ensure smooth handling of service provider, location, and specialization data using a relational database.
5. **Time and Effort Saving:**
   To reduce the time and effort required to find reliable tiffin services manually.
6. **Scalability:**
   To design the system in a way that allows future enhancements such as ratings, reviews, online orders, and payment integration.
7. **Academic Learning:**
   To serve as a practical project for understanding full-stack web application development.

2.4 Users of System

The **Tiffin Service Finder System** is designed for different types of users:

1. General Users / Customers:

• Individuals such as students, working professionals, and families looking for home-style food services.
• Can search and view tiffin services based on location and preferences.

2. Tiffin Service Providers:

• Can register their services on the platform.
• Can manage their service details, locations, and specializations.

3. Administrator:

• Responsible for managing users, tiffin services, locations, and system data.
• Ensures data accuracy and system security.

4. Educational Institutions:

• MCA and computer science students can use the project as a reference for PHP and CodeIgniter-based web applications.
• Demonstrates real-world implementation of database-driven systems.

Key Benefit for Users:

The system provides a **fast, reliable, and centralized solution** for finding tiffin services, saving users time and effort while ensuring access to organized and verified service information.

3 Analysis and Design

3.1 System Requirements

The system requirements specify the functionalities and constraints that the Tiffin Service Finder System must satisfy to meet user needs effectively.

3.1.1 Functional Requirements

Functional requirements describe the core features and operations of the system.

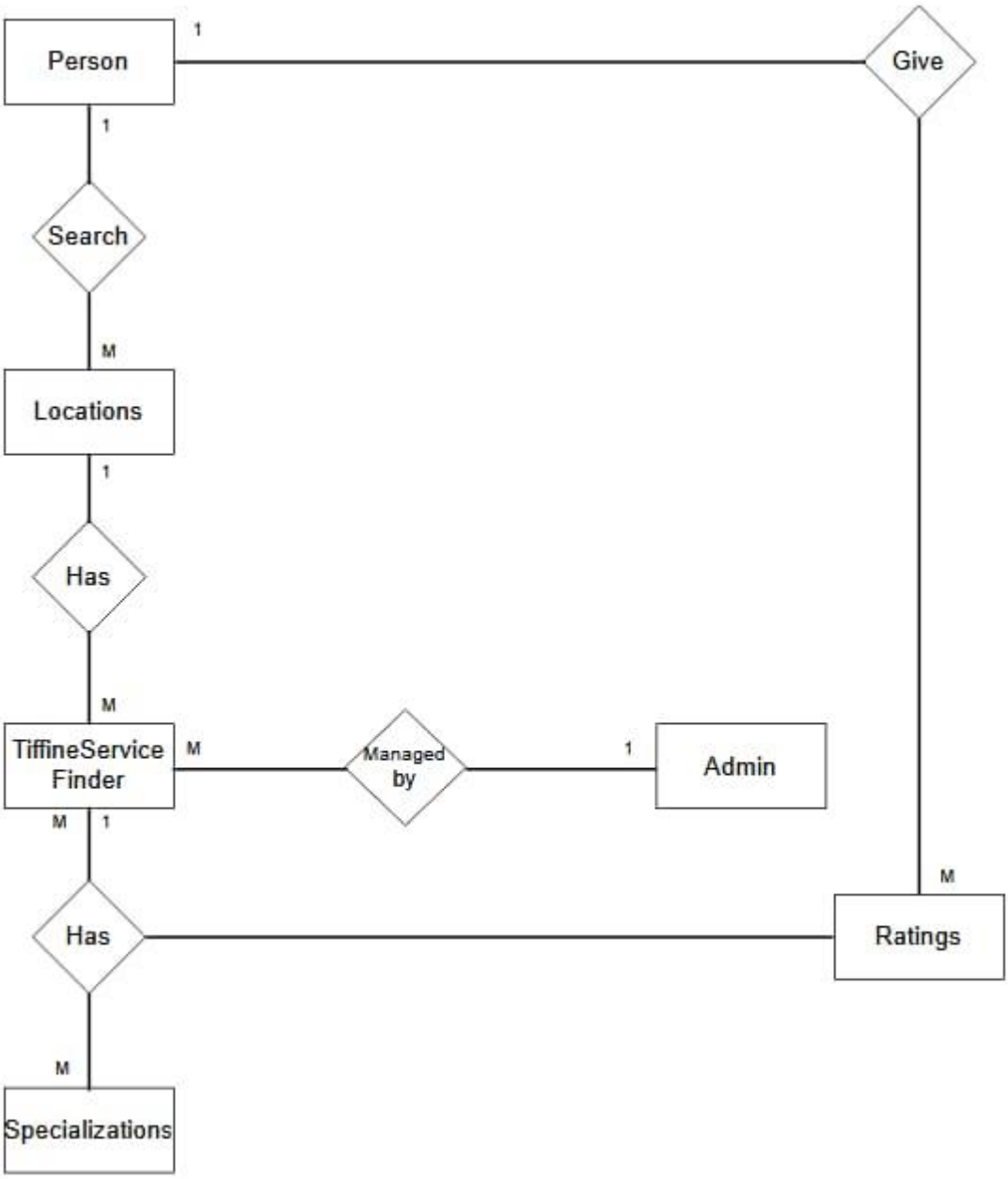
1. **User Registration and Login**
   • The system should allow users to register and log in securely.
   • Users should be able to access the system using valid credentials.
2. **Search Tiffin Services**
   • The system should allow users to search for tiffin services based on location (city, area).
   • Users should be able to filter services based on specializations and preferences.
3. **View Tiffin Service Details**
   • The system should display detailed information such as service name, address, contact details, specializations, and website link.
4. **Service Provider Management**
   • The system should allow tiffin service providers to add, update, and manage their service details.
   • Providers should be associated with specific locations and specializations.
5. **Admin Management**
   • The admin should be able to manage users, tiffin services, locations, and specializations.
   • The admin should have full control over system data.
6. **Database Operations**
   • The system should store and retrieve data efficiently using PostgreSQL.
   • It should support Create, Read, Update, and Delete (CRUD) operations.
7. **User Interaction**
   • The system should provide a simple and responsive web interface for easy navigation and usage.

3.1.2 Non-Functional Requirements

Non-functional requirements describe the quality attributes of the system.

1. **Performance**
   • The system should display search results quickly with minimal response time.
2. **Usability**
   • The interface should be user-friendly and easy to understand for non-technical users.
3. **Reliability**
   • The system should operate consistently without frequent failures.
   • Data should be stored accurately and retrieved correctly.
4. **Scalability**
   • The system design should support future enhancements such as reviews, ratings, and online ordering.
5. **Security**
   • User login credentials and sensitive data should be securely handled.
   • Unauthorized access should be restricted.

3.2 Entity Relationship Diagram (ERD)



3.3 Table Structure:

Admin:

Field	Type	Size	Constraints
a_id	Integer	11	Primary key
name	Varchar	50	Not null
Email	Varchar	255	Not null,Unique
Password	Varchar	255	Not null

Person:

Field	Type	Size	Constraints
p_id	Integer	11	Primary key
name	Varchar	50	Not null
Email	Varchar	255	Not null
Phone_no	Varchar	20	Not null
address	Text	20	Not null
gender	Varchar	10	Not null
Password	Varchar	255	Not null

Location:

Field	Type	Size	Constraints
L_id	Integer	11	Primary key
p_id	Integer	11	Primary key
name	Varchar	50	Not null
city	Varchar	100	Not null
state	Varchar	100	Not null
country	Varchar	100	Not null
P_code	Varchar	20	Not null

Specialization:

Field	Type	Size	Constraints
S_id	integer	11	Primary key
name	varchar	255	Not null

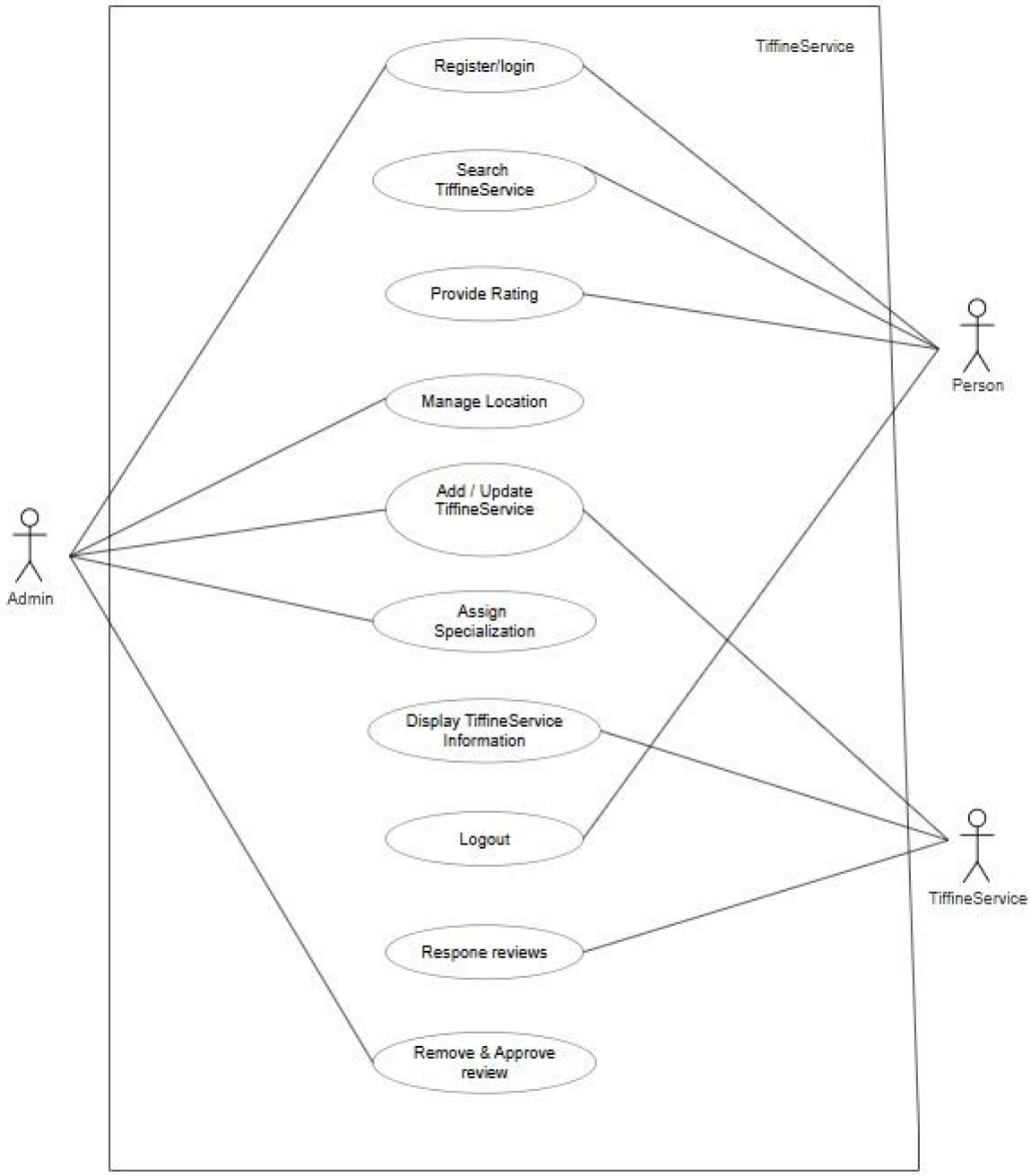
TiffineService Specialization:

Field	Type	Size	Constraints
T_id	integer	11	Foreign key ->(T-id)
S_id	integer	**11**	Foreign key -> Specializations(S_id)

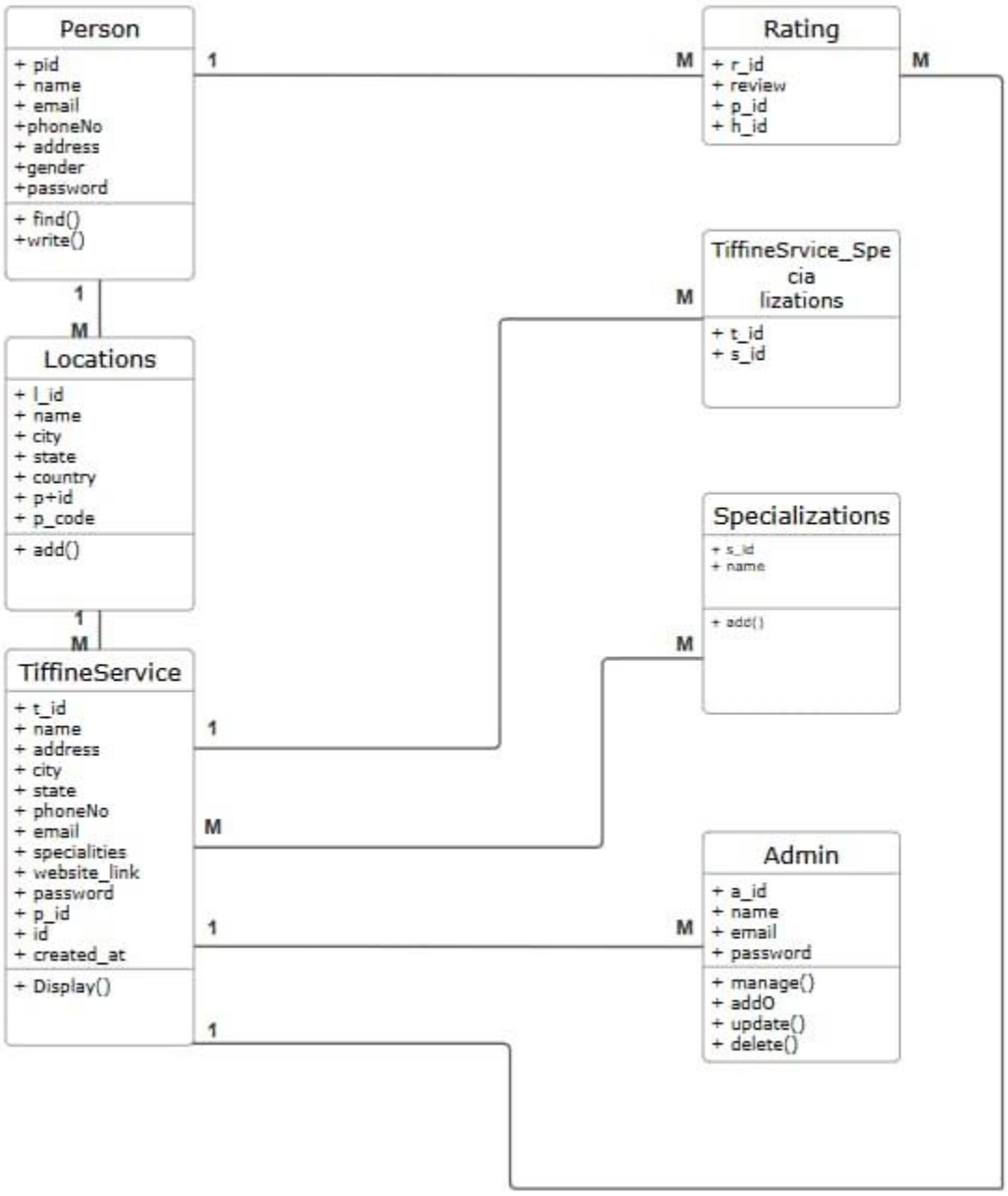
Rating:

Field	Type	Size	Constraints
R_id	integer	11	Primary key
p_id	integer	11	foreign key ->person(p_id)
H_id	integer	11	Foreign key ->(T_id)
review	Text	-	NotNull

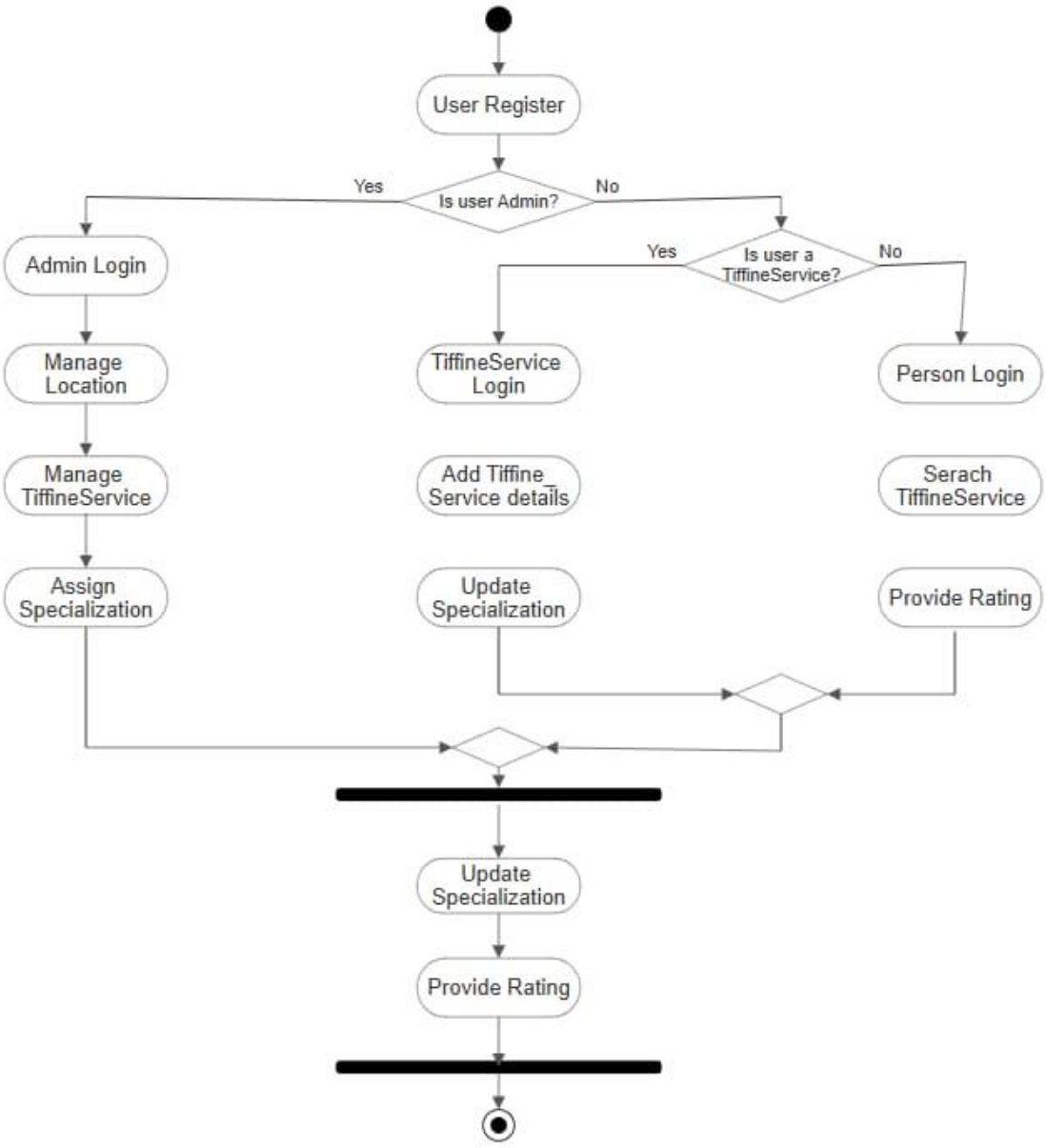
3.4 Use Case Diagrams



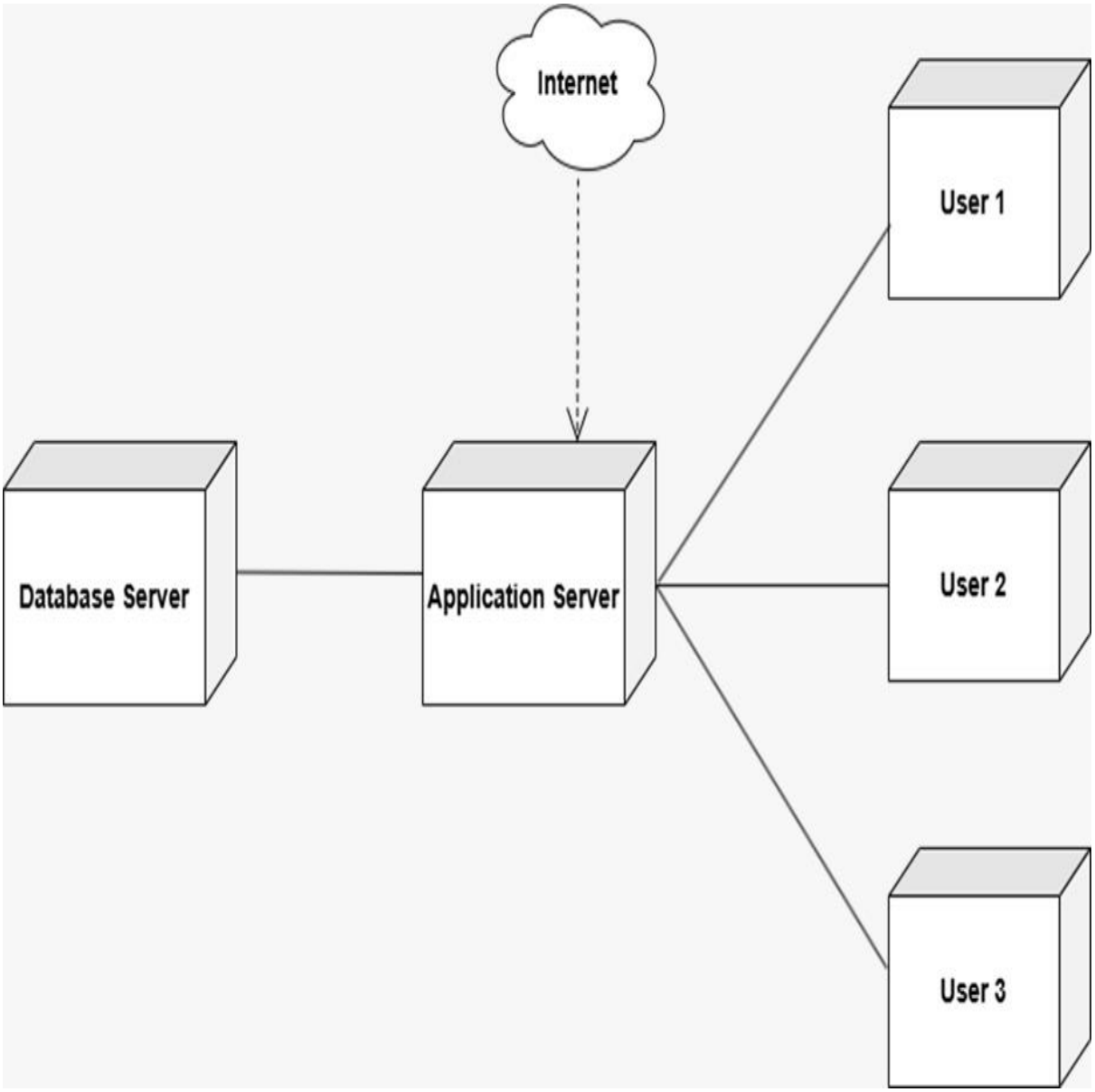
3.5 Class Diagram



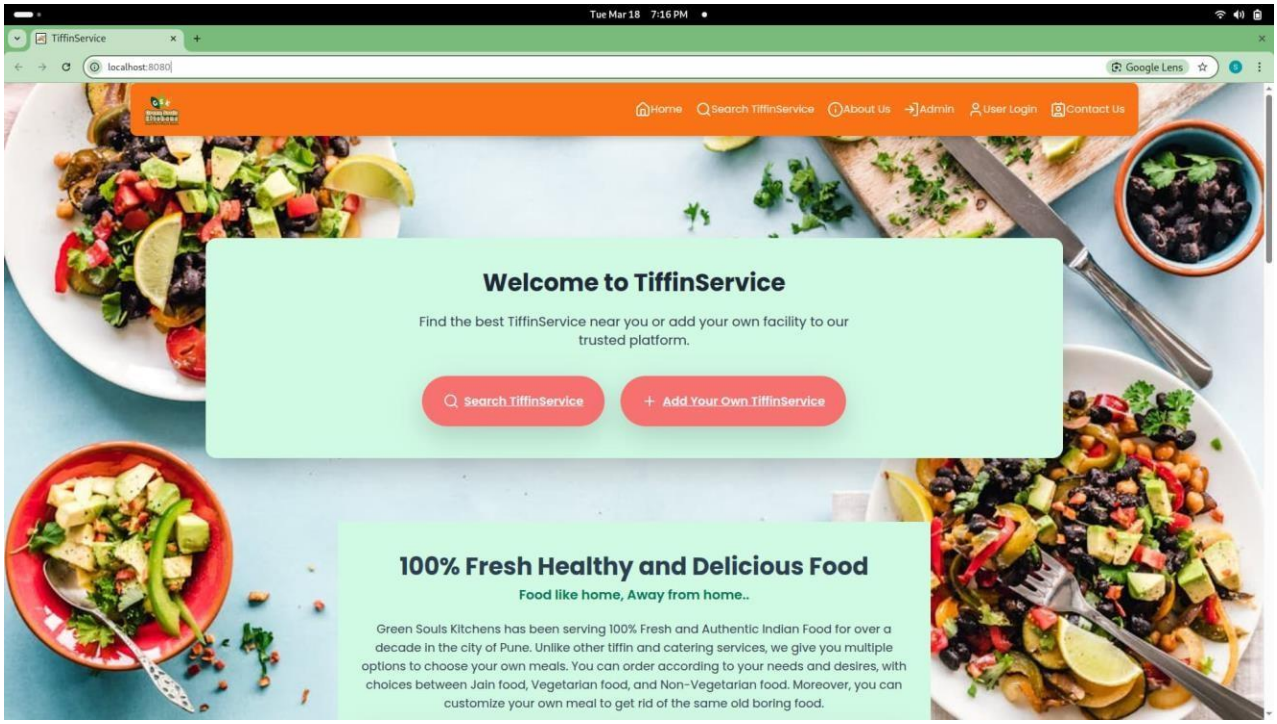
3.6 Activity Diagram

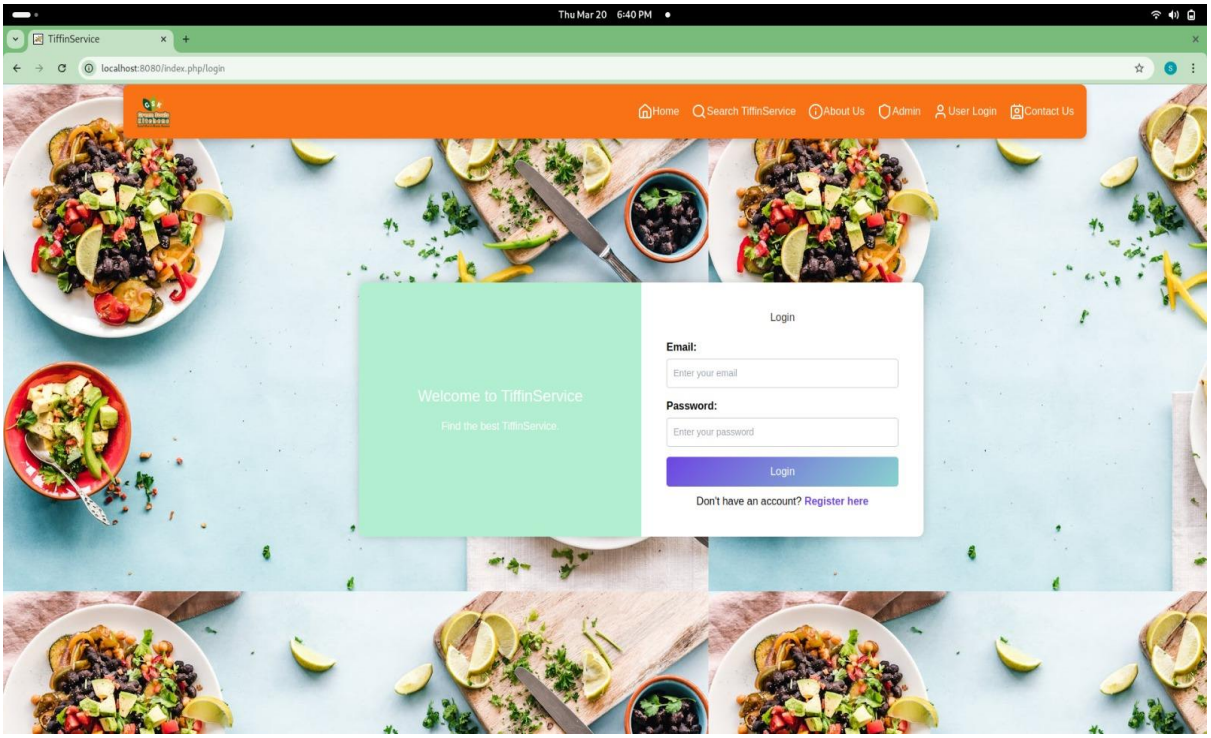


3.7 Deployment Diagram



3.9 Sample Input and Output Screens (Screens must have validdata. All reports must have at-least 5 valid records.)

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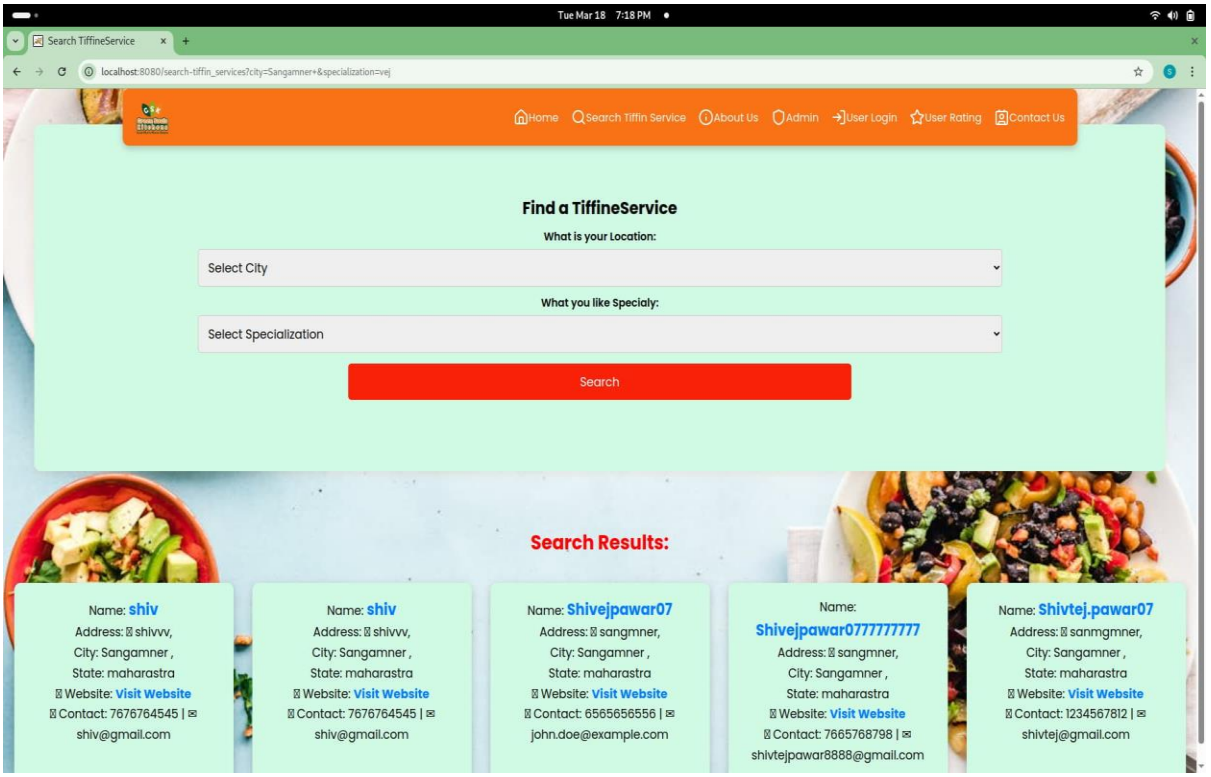
About Us
Admin
User Login
Contact Us
Welcome to TiffinService
Find the best TiffinService.
Login
Email:
Enter your email
Password:
Enter your password
Login
Don't have an account? Register here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Contact Us
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Select City
What you like Specialy:
Select Specialization
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Address: shivvv,
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State: maharastra
Website: Visit Website
Contact: 7676764545 |
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State: maharastra
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Name:
Shivejpawar0777777777
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State: maharastra
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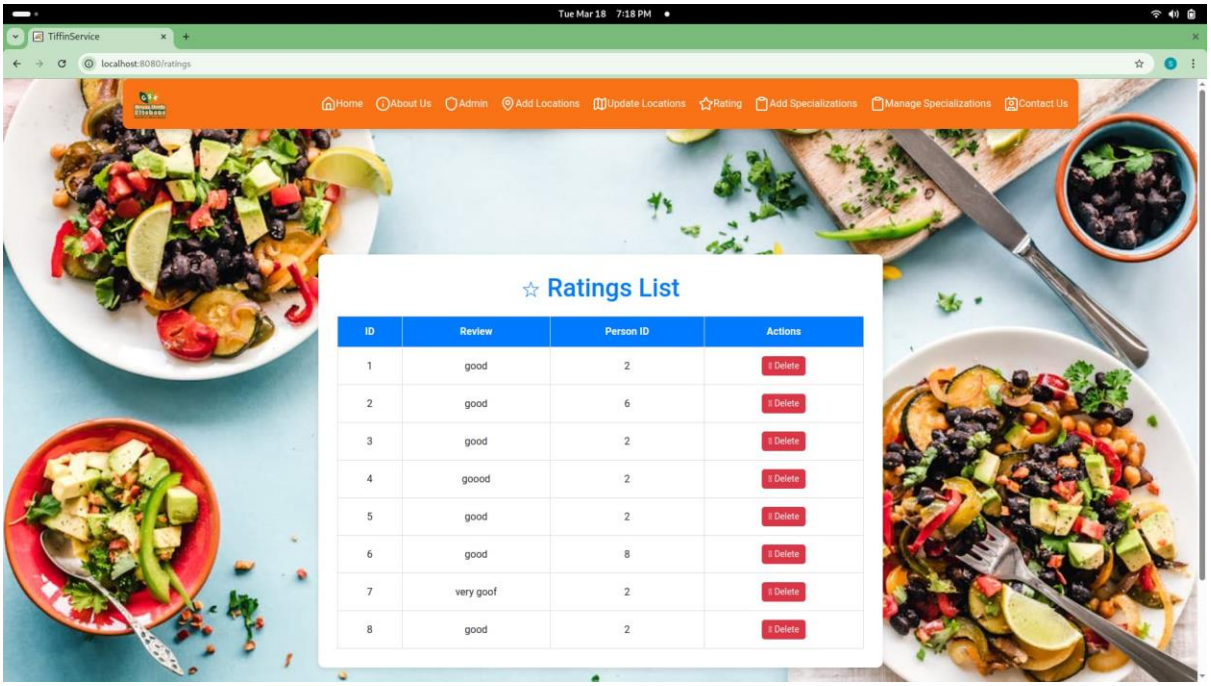
Contact: 7665768798 |
shivtejpawar8888@gmail.com
Name: Shivtej.pawar07
Address: sanmgmner,
City: Sangamner ,
State: maharastra
Website: Visit Website
Contact: 1234567812 |
shivtej@gmail.com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Admin
Add Locations
Update Locations
Rating
Add Specializations
Manage Specializations
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☆ Ratings List
ID
Review
Person ID
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6 good 8 Delete
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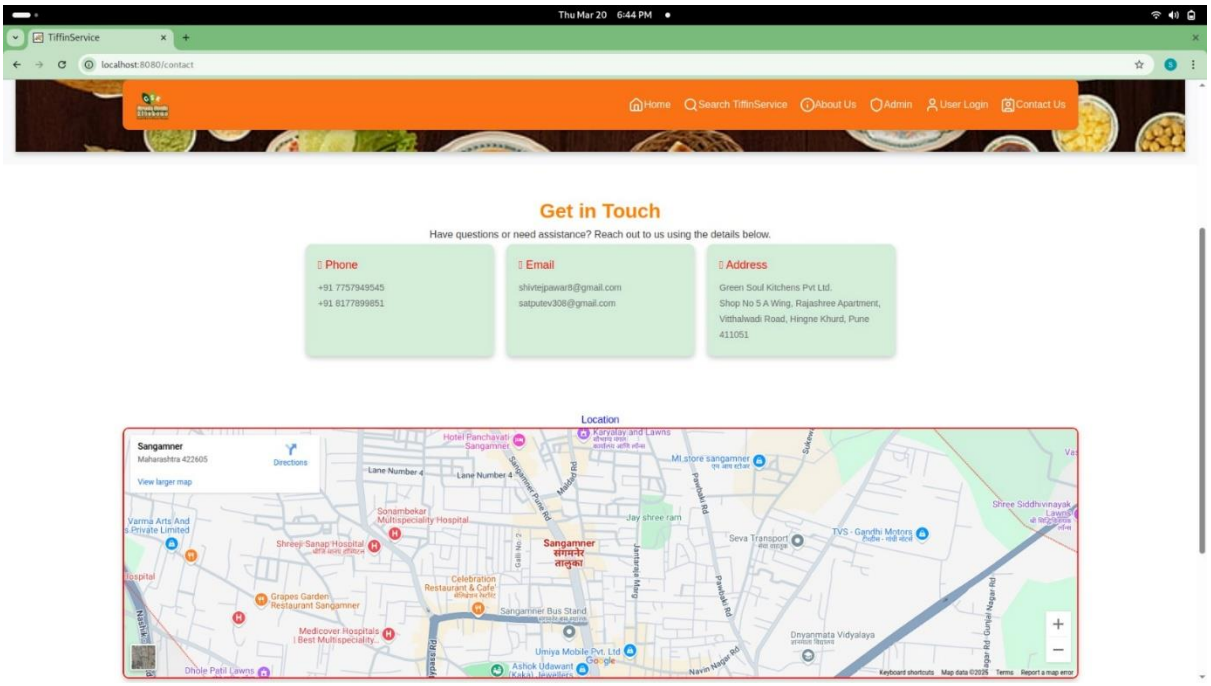
Thu Mar 20 6:44 PM
TiffinService
localhost:8080/contact
Home
Search TiffinService
About Us
Admin
User Login
Contact Us
Get in Touch
Have questions or need assistance? Reach out to us using the details below.
Phone
+91 7757949545
+91 8177899851
Email
shivtejpawar8@gmail.com
satputev308@gmail.com
Address
Green Soul Kitchens Pvt Ltd.
Shop No 5 A Wing, Rajashree Apartment,
Vitthalwadi Road, Hingne Khurd, Pune
411051
Location
Sangamner
Maharashtra 422605
Directions
View larger map
Sangamner
संगमनेर
तालुका
Hotel Panchavati Sangamner
Karyalay and Lawns
MI store sangamner
Sonambeker Multispeciality Hospital
Shreeji Sanap Hospital
Jay shree ram
Seva Transport
TVS - Gandhi Motors
Celebration Restaurant & Cafe
Grapes Garden Restaurant Sangamner
Sangamner Bus Stand
Medicover Hospitals | Best Multispeciality...
Umiya Mobile Pvt. Ltd
Ashok Udawant (Kaka) Jewellers
Dnyanmata Vidyalaya
Dhole Patil Lawns
Keyboard shortcuts
Map data ©2025
Terms
Report a map error

4. Coding

This chapter describes the implementation details of the Tiffin Service Finder System.
The system is developed using PHP with CodeIgniter 4 framework and PostgreSQL database.
The application follows the MVC (Model–View–Controller) architecture, which separates business logic, user interface, and data handling.

4.1 Technologies Used

The following technologies are used in the development of the system:

Technology	Purpose
PHP	Backend programming
CodeIgniter 4	Web application framework
PostgreSQL	Database management
HTML, CSS	Frontend structure and styling
Bootstrap	Responsive UI
JavaScript	Client-side validation
Apache Server	Application hosting

4.2 MVC Architecture Implementation

The system is implemented using the MVC design pattern:

- Model: Handles database operations
- View: Displays user interface
- Controller: Manages application logic and user requests

4.3 Module-wise Coding Description

4.3.1 User Module

Purpose:
Allows users to search and view tiffin services.
Functions Implemented:

- User registration
- User login
- Search tiffin services by location
- View service details

4.3.2 Tiffin Service Provider Module

Purpose:
Allows service providers to manage their tiffin services.

Functions Implemented:

- Provider login
- Add tiffin service
- Update service details

- Assign locations and specializations

4.3.3 Admin Module

Purpose:
Provides full control over the system.
Functions Implemented:

- Admin login
- Manage users
- Manage tiffin services
- Manage locations
- Manage specializations

4.4 Database Connectivity Code (PostgreSQL)

```
public array $default = [
   'DSN'      => '',
   'hostname' => 'localhost',
   'username' => 'postgres',
   'password' => '7757',
   'database' => 'tiffin',
   'DBDriver' => 'Postgre',
   'port'     => 5432,
];
```

4.5 Model Implementation Example

Tiffin Service Model

```
namespace App\Models;

use CodeIgniter\Model;

class TiffinServicesModel extends Model
{
   protected $table = 'tiffin_services';
   protected $primaryKey = 'h_id';
   protected $allowedFields = [
      'name', 'address', 'city', 'state', 'phone_no',
      'email', 'website_link', 'password', 'a_id', 'l_id'
   ];
}
```

4.6 Controller Implementation Example

```
namespace App\Controllers;

use App\Models\TiffinServicesModel;

class TiffinController extends BaseController
{
   public function index()
   {
```

```
        $model = new TiffinServicesModel();
        $data['services'] = $model->findAll();
        return view('tiffin_list', $data);
    }
}
```

4.7 View Implementation Example

```
<h2>Tiffin Services List</h2>
<table class="table table-bordered">
    <tr>
        <th>Name</th>
        <th>City</th>
        <th>Contact</th>
    </tr>
    <?php foreach ($services as $service): ?>
    <tr>
        <td><?= $service['name']; ?></td>
        <td><?= $service['city']; ?></td>
        <td><?= $service['phone_no']; ?></td>
    </tr>
    <?php endforeach; ?>
</table>
```

4.8 Sample Output

Output Screen:

- Displays list of available tiffin services
- Shows service name, location, and contact details
- User can filter services based on city and specialization

4.9 Conclusion

The coding implementation of the Tiffin Service Finder System successfully integrates backend logic, database connectivity, and frontend display using CodeIgniter 4 MVC architecture.
The modular structure ensures easy maintenance, scalability, and future enhancements such as online ordering, ratings, and payment integration.

5. Testing

Testing is an essential phase of software development that ensures the system works correctly and meets the specified requirements. The Tiffin Service Finder System was thoroughly tested using different testing techniques to verify functionality, accuracy, usability, and reliability.

5.1 Test Strategy

The test strategy defines the overall approach used to test the Tiffin Service Finder System. The objective is to ensure that users can easily search tiffin services, view correct details, and contact service providers without errors.

5.1.1 Testing Approach

The following testing approaches were adopted:

- Manual Testing for user interface and form validation
- Automated Testing for backend logic (search & filtering)
- Black Box Testing to verify system functionality
- White Box Testing to test internal logic and database queries

5.1.2 Testing Levels

Testing was carried out at multiple levels:

1. Unit Testing
   o Individual modules like user registration, login, service listing, and search were tested separately.
2. Integration Testing
   o Interaction between UI, backend, and database was verified.
3. System Testing
   o Complete end-to-end testing of the system.

4. Validation Testing

o Ensured the system meets user requirements.

5.1.3 Test Environment

Component	Specification
Operating System	Windows 10
Programming Language	PHP / Java / Python
Frontend	HTML, CSS, Bootstrap
Backend	PHP / Servlet
Database	MySQL
Development Tool	VS Code / Eclipse

5.1.4 Test Data

- Real tiffin service records
- Valid user registration data
- Invalid login credentials
- Boundary values (empty fields, long text)

5.1.5 Entry and Exit Criteria

Entry Criteria:
- All modules implemented
- Database connected

Exit Criteria:
- All test cases executed successfully
- No critical defects remaining

5.1.6 Risk Analysis

Risk	Mitigation Strategy
Incorrect service details	Data validation
Invalid user input	Input validation
Performance delay	Optimized queries
Unauthorized access	Authentication checks

5.1.7 Roles and Responsibilities

- Developer: Coding and unit testing
- Tester: Test case execution
- End User: Acceptance testing

5.2 Unit Test Plan

The Unit Test Plan defines testing of individual modules of the Tiffin Service Finder System.

5.2.1 Objectives

- Verify correctness of individual modules
- Detect errors early
- Ensure reliable service search and display

5.2.2 Units to be Tested

Unit ID	Module Name	Description
UT01	Registration Module	User signup
UT02	Login Module	User authentication
UT03	Service Listing	Display tiffin services
UT04	Search Module	Location-based search
UT05	Contact Module	Contact service provider
UT06	Database Module	Data storage & retrieval

5.2.3 Unit Testing Approach

- White Box Testing
- Independent module testing
- Automated scripts and manual checks

5.2.4 Unit Test Cases

Test Case ID	Module	Input	Expected Output	Status
UT01	Registration	Valid data	Registered	Pass
UT02	Login	Correct credentials	Login success	Pass
UT03	Listing	Service data	Displayed	Pass
UT04	Search	Location	Correct results	Pass
UT05	Contact	Valid request	Contact shown	Pass
UT06	Database	Insert data	Stored	Pass

5.3 Acceptance Test Plan

Acceptance testing ensures that the system meets user expectations.

5.3.1 Objectives

- Verify ease of use
- Confirm correct service details
- Validate system reliability

5.3.2 Acceptance Criteria

The system is accepted if:

- User can search tiffin services easily
- Correct service details are displayed
- System response time is fast
- No critical defects exist

5.3.3 Acceptance Test Cases

Test Case ID	Scenario	Expected Result	Status
AT01	Valid search	Services displayed	Pass
AT02	Invalid input	Error message	Pass
AT03	Service contact	Details shown	Pass
AT04	UI clarity	Clear layout	Pass
AT05	Response time	Instant	Pass

5.4 Test Case / Test Script

5.4.1 Sample Test Script

```
def test_search():

    location = "Sangamner"

    result = search_tiffin_service(location)

    assert result is not None

    print("Test Passed")
```

5.4.2 Test Execution Result

- Total Test Cases: 7
- Passed: 7
- Failed: 0

5.5 Defect Report / Test Log

5.5.1 Defect Report Table

Defect ID	Module	Description	Severity	Status
DR01	Search	Empty input issue	Medium	Fixed
DR02	UI	Alignment issue	Low	Fixed
DR03	Login	Error message	Low	Fixed
DR04	Database	Duplicate entry	Low	Fixed

5.5.2 Defect Summary

- Total Defects Found: 4
- Critical Defects: 0
- Resolved Defects: 4
- Pending Defects: 0

6. Limitations of Proposed System

Although the Tiffin Service Finder System provides an efficient and user-friendly way to search and explore available tiffin services, it has certain limitations that should be considered.

6.1 Data Dependency

The accuracy and usefulness of the system depend on the correctness and completeness of the tiffin service data stored in the database. If service providers do not update their information regularly, users may receive outdated or incorrect details.

6.2 Limited Service Coverage

The system currently supports tiffin services for limited geographic locations. Users from other areas may not find sufficient service options.

6.3 Manual Data Entry

Most service details are entered manually by service providers or administrators. Incorrect or incomplete data entry can affect the quality of search results.

6.4 Internet Dependency

The system requires an active internet connection. Users cannot access tiffin service information in offline mode.

6.5 Scalability Limitations

The current implementation is suitable for small to medium-scale usage. Performance may degrade when handling a large number of users or service providers without further optimization.

6.6 No Online Ordering or Payment

The system only provides information about tiffin services. It does not support online food ordering, subscription management, or digital payment functionality.

6.7 Limited Security Features

Basic authentication and validation mechanisms are implemented. Advanced security features such as data encryption, role-based access control, and secure payment gateways are not included.

7. Proposed Enhancements

The Tiffin Service Finder System can be further improved by incorporating advanced technologies and additional features. The following enhancements are proposed to overcome current limitations and improve system performance, usability, and service quality.

7.1 Integration of Advanced Search and Recommendation Techniques

Future versions of the system can use:

- Intelligent recommendation algorithms based on user preferences
- Location-based filtering using GPS
- Rating-based and popularity-based sorting

These features will help users find the most suitable tiffin services quickly.

7.2 Real-Time Availability and Menu Updates

The system can be enhanced by allowing tiffin service providers to:

- Update daily menus in real time
- Mark availability (available / not available)
- Display special offers or discounts

This will ensure users always receive up-to-date information.

7.3 Inclusion of Additional Service Parameters

Additional parameters such as:

- Veg / Non-Veg options
- Monthly subscription plans
- Pricing details
- Delivery timings and areas
- Hygiene and food quality ratings

can improve decision-making for users.

7.4 Web and Mobile Application Deployment

Deploying the system as both a web and mobile application will allow:

- Easy access for users anytime and anywhere
- Faster service discovery
- Better reach for local tiffin service providers

7.5 Improved User Interface and User Experience

A more interactive and user-friendly interface can be developed with:

- Attractive dashboards
- Filter and search options
- Map-based service location view
- Multilingual support (English, Marathi, Hindi)

7.6 Online Ordering and Payment Integration

Future enhancements may include:

- Online tiffin ordering
- Subscription management
- Digital payment gateways (UPI, cards, wallets)
- Order history and invoice generation

7.7 Enhanced Security and User Management

The system can be strengthened by:

- Secure login and authentication
- Role-based access (Admin, Provider, User)
- Data encryption and secure storage
- Privacy protection for user information

7.8 Feedback and Rating System

Users can be allowed to:

- Rate tiffin services
- Provide reviews and feedback

This will help improve service quality and guide new users.

7.9 Future Scalability and Expansion

The system can be expanded to:

- Support multiple cities
- Integrate cloud hosting
- Handle large numbers of users and service providers efficiently

8. Conclusion

The Tiffin Service Finder System successfully demonstrates the effective use of web-based technology to solve real-world problems related to food accessibility and daily meal management. The system is designed to help users easily find suitable tiffin services based on location, food preferences, pricing, and availability.

Through proper system analysis, design, implementation, and testing, the application provides reliable and accurate results. Users can search and view tiffin service details, while service providers can promote their offerings efficiently. The system ensures ease of use through a simple and interactive user interface.

Comprehensive testing was conducted at various levels including unit testing, integration testing, system testing, and acceptance testing. All identified issues were resolved, ensuring smooth functionality, stability, and correctness of the system. The application meets both functional and non-functional requirements and performs well under different user scenarios.

Although the system has certain limitations, it serves as a practical and useful platform for students, working professionals, and service providers. With the proposed enhancements such as online ordering, mobile application support, real-time updates, and secure payment integration, the system has strong potential for real-world deployment and future expansion.

In conclusion, the Tiffin Service Finder System achieves its objectives successfully and demonstrates how technology can simplify daily life by connecting users with reliable and affordable tiffin services. The project also serves as a valuable learning experience for students in understanding full-stack development and real-world system implementation.

9. Bibliography

- https://codeigniter.com

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  - Beginning PHP 5 , Wrox publication
  - PHP web sevices, Wrox publication
  - AJAX Black Book, Kogent solution
  - Mastering PHP , BPB Publication
  - PHP cookbook, O'Reilly publication

10. Publication / Competition Certificates

This section includes details of publications and competitions related to the Tiffin Service Finder System project. These certificates serve as proof of academic contribution, participation, and recognition.

10.1 Publications

At present, the Tiffin Service Finder System has not been published in any journal or conference.
This project has been developed primarily for academic and learning purposes.

(Optional – if published in future):
The project work may be submitted/published in the following journal or conference:

- Title of Paper: Tiffin Service Finder System Using Web Technologies
- Journal / Conference Name: International Journal of Advanced Research in Computer Science (IJARCS) *(Placeholder)*
- Year of Publication: 2025
- Authors: *Shivtej Dipak Pawar*

10.2 Competitions

The Tiffin Service Finder System project has not been submitted to any technical competition so far.

(Optional – if participated in future):
The project may be presented or participated in the following competition:

- Competition Name: Smart City & Local Services Innovation Challenge *(Placeholder)*
- Organized By: XYZ Technical Institute / Tech Foundation *(Placeholder)*
- Year: 2025
- Achievement: Participation

11. Appendix – Cost Sheet, Data Sheet

This appendix provides supplementary information related to the Tiffin Service Finder System, including the estimated cost involved in system development and details of the data used for the project.

11.1 Cost Sheet

The Tiffin Service Finder System is developed using open-source tools and technologies, which significantly reduces the overall development cost. The project is suitable for academic use and small-scale deployment.

Cost Estimation Table

Sr. No.	Resource / Component	Description	Cost (INR)
1	Hardware	Personal Computer / Laptop	Existing
2	Operating System	Windows 10 / Linux	Free
3	Programming Language	PHP / JavaScript / HTML / CSS	Free
4	Framework	CodeIgniter 4	Free
5	Database	MySQL	Free
6	Development Tools	VS Code / XAMPP	Free
7	Internet	Development, testing & research	Minimal
	Total Cost		Low / Nil

Conclusion (Cost Sheet)

The Tiffin Service Finder System is highly cost-effective as it uses open-source software and existing hardware resources. No additional licensing or infrastructure cost is required, making it ideal for academic projects and startup-level applications.

11.2 Data Sheet

The data used in the Tiffin Service Finder System includes details of tiffin service providers and user requirements. The dataset is created manually and/or collected locally for academic purposes.

Dataset Details

- Dataset Name: Tiffin Service Finder Dataset
- Source: Self-created / Local Survey (Academic Purpose)
- Type: Structured data
- Format: MySQL Database / CSV
- Number of Records: Varies (based on available services)

Data Attributes

Attribute Name	Description
Service_ID	Unique tiffin service identifier

Attribute Name	Description
Service_Name	Name of tiffin service
Owner_Name	Service provider name
Contact_Number	Contact details
Location	Area / city of service
Meal_Type	Veg / Non-Veg
Price	Monthly or per-meal cost
Delivery_Availability	Yes / No
Rating	User rating
Availability	Active / Inactive

Conclusion (Data Sheet)

The dataset provides essential information required to search, filter, and display tiffin services effectively. Proper data organization and validation ensure reliable system performance and accurate service discovery for users.

12. User Manual – Tiffin Service Finder System

Overview

The Tiffin Service Finder System is a web-based application designed to help users easily find suitable tiffin services based on location, meal type, price, and availability. The system provides a user-friendly interface for searching, viewing, and managing tiffin service details. It also allows service providers to register and manage their services efficiently.

12.1 Login / Authentication Screen

Purpose:

To secure the system and allow only authorized users (Admin, Service Providers, or Registered Users) to access specific features.

Screen Description:

Fields:

1. Username / Email – Enter registered username or email ID
2. Password – Enter password

Validations:

- Username/email cannot be empty
- Password must be at least 6 characters long
- Invalid credentials display error message:
  "Invalid Username or Password."

12.2 Dashboard / Home Screen

Purpose:

To provide easy navigation to all system functionalities.

Screen Description:

Navigation Options:

1. Search Tiffin Services
2. View Tiffin Service List
3. Register Tiffin Service (Provider)
4. My Profile
5. Logout

Validations:

- Dashboard options are accessible only after successful login
- Role-based access is applied (Admin/User/Provider)

12.3 Search Tiffin Service Screen

Purpose:

To allow users to search for available tiffin services.

Screen Description:

Search Filters:

1. Location / City
2. Meal Type – Veg / Non-Veg
3. Price Range
4. Delivery Availability

Validations:

- Location field cannot be empty
- At least one search parameter must be selected
- Error message displayed if no services are found

12.4 Tiffin Service Details Screen

Purpose:

To display complete details of selected tiffin service.

Screen Description:

Displayed Information:

- Service Name
- Owner Name
- Contact Number
- Address / Location
- Meal Type
- Monthly Price
- Delivery Availability
- Special Services

Validations:

- Details are shown only for active services
- Contact details are visible only to logged-in users

12.5 Tiffin Service Registration Screen (Service Provider)

Purpose:

To allow service providers to register their tiffin service.

Screen Description:

Fields:

1. Service Name
2. Owner Name
3. Phone Number
4. Email ID
5. Address / Location
6. Meal Type
7. Price
8. Delivery Option

Validations:

- All mandatory fields must be filled
- Phone number must be numeric and valid
- Email must be in proper format
- Price must be numeric

12.6 Admin Management Screen

Purpose:

To allow admin to manage users and tiffin services.

Screen Description:

Admin Options:

- View all tiffin services
- Approve / Reject service registration
- Activate / Deactivate services
- Manage users

Validations:

- Admin privileges required
- Confirmation popup for delete/deactivate actions

12.7 Reports / Listings Screen

Purpose:

To display tiffin service listings and reports.

Screen Description:

- List of registered tiffin services

- Filters by location, price, or meal type
- Option to export data (optional)

Validations:

- Filters must be valid
- Only existing records can be exported

12.8 Logout / Exit Screen

Purpose:

To safely log out from the system.

Validations:

- Logout confirmation message:
  "Are you sure you want to logout?"
- Session ends after logout
- Redirects user to login page

Conclusion

The Tiffin Service Finder System is simple, user-friendly, and efficient. It allows users to quickly find suitable tiffin services and helps service providers promote their offerings. The system ensures secure access, proper validation, and smooth navigation for all users.