

Local Service Finder: A Django-Based Web Application

Sauravi Manohar Gaikwad, Kanchan Gururaj Swami, Sabiga Ferozkhan Shaikh, Mr. S. B. Khadke

Department of Computer Engineering

SJVPM's Rasiklal M. Dhariwal Institute of Technology, Pune, India

Abstract: *In today's fast-paced urban environment, accessing reliable local services such as electricians, plumbers, and domestic helpers remains a significant challenge. Traditional methods rely heavily on word-of-mouth or unverified sources, leading to inefficiency and lack of trust. This paper presents the design and development of a Local Service Finder web application using the Django framework. The system enables users to search, compare, and book local services efficiently while allowing service providers to register and manage their offerings. The application ensures secure authentication, structured data management, and an intuitive user interface. The proposed system improves service accessibility, enhances user experience, and provides a scalable solution for digital service marketplaces.*

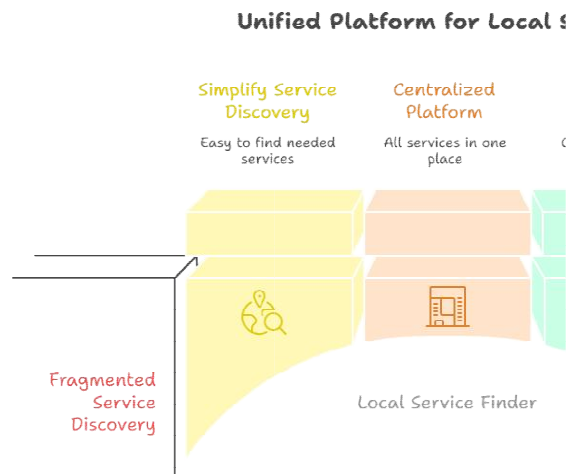
Keywords: *local services*

I. INTRODUCTION

The digital transformation of services has significantly changed how people access daily necessities. However, local service discovery still lacks a unified and efficient platform, especially for small-scale providers.

The Local Service Finder system is designed to:

- Simplify service discovery
- Provide a centralized platform
- Enable seamless interaction between users and workers



This project leverages Django's robust backend capabilities to ensure scalability, security, and rapid development.



2. Literature Review

Several platforms like Urban Company and JustDial provide service aggregation. However, these systems often:

Focus on large-scale providers

Have complex interfaces

Lack customization for small projects

Research shows that user-friendly and lightweight systems are more effective for localized environments. This project improves upon existing solutions by focusing on simplicity, accessibility, and modular design.

3. Problem Statement

Users face multiple challenges:

Difficulty in finding trusted service providers

Lack of verified reviews

Time-consuming booking process

Service providers face:

Limited visibility

Difficulty reaching customers

This system aims to create a **bridge between demand and supply** through a digital platform.

4. Objectives

Develop a web-based service discovery platform

Enable user authentication and secure login

Provide booking functionality

Allow service providers to manage services

Ensure efficient database handling

5. System Architecture

The system follows a **three-tier architecture**:

1. Presentation Layer

HTML, CSS, JavaScript

User interface for interaction

2. Application Layer

Django framework

Handles logic, authentication, routing

3. Data Layer

SQLite / MySQL database

Stores user, service, and booking data

6. Data Flow Diagram (DFD)

Level 0 (Context Diagram)

User → System → Service Provider

Provider → System → User

Level 1

Processes include:

User Registration

Login Authentication

Service Search



Booking Management

7. Flowchart (System Workflow)

Start

User Registration / Login

Search for Service

View Service Details

Book Service

Confirmation

End

8. Database Design

Main tables include:

User Table

ID, Name, Email, Password

Service Table

Service ID, Name, Category, Price

Booking Table

Booking ID, User ID, Service ID, Status

Relationships:

One user → many bookings

One service → many bookings

9. Implementation

The system is developed using Django MVC (Model-View-Template):

Model

Defines database schema

View

Handles business logic

Template

Manages frontend UI

Key Features:

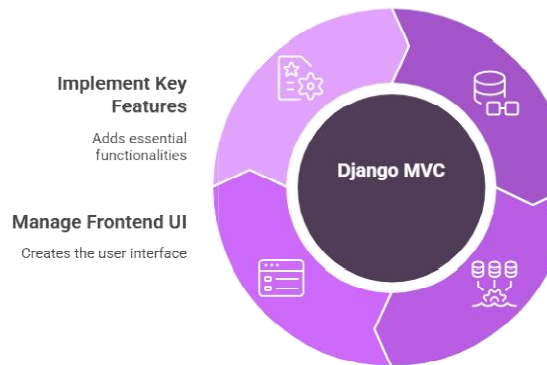
Authentication system

Dashboard for users and workers

Service listing and booking



Django MVC Development Cycle



10. Results and Discussion

The application was tested for:

Functionality

Performance

Usability

Results:

Faster service discovery

Improved user satisfaction

Efficient booking process

The system performs well under normal conditions and provides a smooth user experience.

11. Advantages

Easy to use interface

Secure authentication

Scalable system

Reduces manual effort

12. Limitations

Internet dependency

Limited to registered users

No real-time tracking (optional feature)

13. Future Scope

Mobile application development

Payment gateway integration

AI-based recommendations

Real-time notifications



14. AI Chatbot Integration

The Local Service Finder system integrates an **AI-based chatbot** to enhance user interaction and provide instant assistance. The chatbot helps users navigate the platform, search for services, and resolve queries efficiently.

Features of AI Chatbot

- Provides **instant responses** to user queries
- Helps users **find services quickly**
- Guides users through booking process
- Available **24/7 for assistance**
- Improves overall user experience

Working of Chatbot

- User enters a query (e.g., “Find electrician near me”)
- Chatbot processes input using predefined logic or AI model
- System retrieves relevant services from database
- Chatbot displays results or suggestions

Technologies Used

- Django (Backend integration)
- JavaScript (Frontend interaction)
- Basic AI/NLP logic (rule-based or API-based)

Advantages of Chatbot

- Reduces manual search effort
- Saves user time
- Enhances engagement
- Provides smart assistance

10. Rating and Feedback System

The Local Service Finder application includes a **Rating and Feedback module** to improve service quality and user trust. This feature allows users to provide ratings and reviews based on their experience with service providers.

Key Features:

- Users can rate services on a scale of **1 to 5 stars**
- Users can submit **text feedback**
- Ratings are stored and displayed publicly
- Service providers can view feedback to improve performance

Working:

- After service completion, the user is prompted to rate the service
- The rating and feedback are submitted and stored in the database
- The average rating is calculated and displayed on the service profile

11. Feedback Analysis

The feedback system helps in analyzing user satisfaction and service quality.

Benefits:

- Helps users choose better services
- Improves provider accountability



Builds trust in the platform

The system can be extended to include **sentiment analysis** in future updates.

14. Conclusion

The Local Service Finder web application provides an effective solution for connecting users with service providers. By using Django, the system ensures security, scalability, and ease of use. This platform has the potential to improve service accessibility and enhance user satisfaction.

Enhancing Service Quality with Rating and Feedback

