A PROJECT SYNOPSIS

on

COMMUNITY RESOLVE

Submitted By

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Under the Guidance of

Prof. Varalakshmi Rajen

Department of Information Technology

Saraswati Education Society's SARASWATI

COLLEGE OF ENGINEERING Kharghar, Navi

Mumbai

(Affiliated to University of

Mumbai) Academic Year: -2024-

Saraswati College of Engineering, Kharghar

Vision:

To be universally accepted as autonomous center of learning in engineering education and research.

Mission:

1. To educate Students to become responsible & quality technocrats to fulfill society and industry needs.
2. To nurture student's creativity and skills for taking up challenges in all facets of life.

Department of Information Technology

Vision:

To be a leader in Information Technology education, research, and innovation by fostering technical expertise, creativity, and ethical values in students, preparing them to excel in the IT industry and contribute to societal advancement.

Mission:

1. To deliver a comprehensive IT education through a quality teaching that combines theoretical knowledge and practical skills, ensuring students are industry-ready and technically proficient.

2. To cultivate an environment that promotes innovation, entrepreneurship, research, and collaboration with industry and academia, encouraging students and faculty to pursue cutting edge solutions to real-world problems.

3. To impart leadership, ethical principles, and a commitment to lifelong learning, equipping students with the soft skills necessary to lead and contribute meaningfully to society and the IT profession.

PROGRAM EDUCATIONAL OBJECTIVES (PEO)

1. Apply their technical knowledge and problem-solving skills to build successful careers in Information Technology or related fields, contributing effectively as engineers or entrepreneurs to meet the needs of the industry.

2. Demonstrate a commitment to innovation and continuous learning, adapting to technological changes and advancing their skills to stay competitive in the rapidly evolving IT industry.

3. Exhibit strong leadership skills, work effectively in teams, and uphold ethical values in their professional and personal lives, contributing positively to society and leading in diverse roles within the IT industry.

PROGRAM OUTCOME (PO)

At the end of the program, a student will be able to:

1. Apply the knowledge of Mathematics, Science, Engineering fundamentals to solve complex Information Technology Engineering Problems.

2. Identify, formulate and analyze Information Technology Engineering problems to derive conclusion using first principles of mathematics and Computer Science.

3. Investigate complex Information Technology engineering problems and find appropriate solution leading to valid conclusion.

4. Design IT systems, components or processes to meet specified needs with appropriate attention to health, safety, standards, environmental and societal consideration.

5. To create select & apply appropriate techniques, resources advance engineering & software tools necessary to analyze & design Information Technology Problems.

6. Understand the impact of IT Solutions on society and environment for sustainable development. 7. Understand social, safety, cultural and legal issues and responsibilities relevant to engineering profession.

8. Apply professional ethics, accountability and equity in engineering profession.
9. Work effectively as a member and leader in multidisciplinary team for a common goal.
10. Communicate effectively within a profession and with society at large.

11. Appropriately incorporate principles of Management & Finance to one's own work.

12. To identity educational needs & engage in lifelong learning in a changing world of technology.

Lab Objectives:

Students will try to:

1. To acquaint with the process of identifying the needs and converting it into the problem.

2. To familiarize the process of solving the problem in a group.

3. To acquaint with the process of applying basic engineering fundamentals to attempt solutions to the problems.

4. To inculcate the process of self-learning and research.

Lab Outcomes:

Student will be able to:

1. Identify problems based on societal /research needs.

2. Apply Knowledge and skill to solve societal problems in a group.

3. Develop interpersonal skills to work as member of a group or leader.

4. Draw the proper inferences from available results through theoretical/ experimental/simulations.

5. Analyze the impact of solutions in societal and environmental context for sustainable development.

6. Use standard norms of engineering practices

7. Excel in written and oral communication.

8. Demonstrate capabilities of self-learning in a group, which leads to lifelong learning. 9. Demonstrate project management principles during project work.

SARASWATI Education Society's
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Kharghar, Navi Mumbai - 410 210.

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CERTIFICATE

This is to certify that the requirements for the synopsis entitled "Community Resolve"

Have been successfully completed by the following students:

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In partial fulfillment of Sem –V Bachelor of Engineering of Mumbai University in Information Technology of Saraswati College of Engineering, Kharghar during the academic year 2024-25.

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Prof. Maahi Khemchandan

Acknowledgement

A project is something that could not have been materialized without cooperation of many people. This project shall be incomplete if I do not convey my heartfelt gratitude to those people from whom I have got considerable support and encouragement.

It is a matter of great pleasure for us to have a respected **Prof. Varalakshmi Rajen** as my project guide. We are thankful to her for being constant source of inspiration.

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COMMUNITY RESOLVE

ABSTRACT

In today's fast-changing cities, residents face many everyday problems—like potholes, missed garbage collection, blocked drains, and graffiti—that can disrupt community life. These issues often go unreported because it's hard for people to contact local authorities. To solve this, we created an easy-to-use website where city residents can report their problems directly to the right departments. The website allows users to describe their issues, upload pictures for better understanding, and mark the exact location on a map. This makes it easier for local authorities to respond quickly. A live leaderboard shows how many complaints each department has received, resolved, and still needs to handle, promoting openness and accountability. The website also keeps residents updated on the status of their complaints, encouraging them to get involved and take responsibility for their neighbourhood's. By modernizing the way non-emergency urban issues are managed through this platform, we aim to improve communication between residents and local authorities, enhancing the quality of life for everyone in the city.

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LIST OF FIGURES

1. INTRODUCTION

Today, people live in busy cities, facing serious non-emergency problems that disrupt their daily lives. Issues like potholes, missed garbage collection, clogged drains, and broken streetlights need quick reporting and response. Effective communication for safety and cleanliness is essential for communities, which is why a new approach to reporting systems is necessary. Enter our innovative non-emergency reporting website: a fresh way for residents to report issues to local authorities and boost community engagement.

I. Revolutionizing Community Reporting with Next Generation Technology: -

In the world of urban management, precision and efficiency measure performance but are also absolute necessities. In urban management, accuracy and efficiency are crucial. It's important to respond to reported issues in neighborhoods and commercial areas quickly, even if they seem minor. Our website changes how non-emergency problems are identified and resolved for residents and local governments.

II. The Coming Together of Heritage and Innovation: -

Our platform blends traditional community engagement with modern technology. It meets the needs of various users: residents who want their concerns addressed, city officials looking to improve services, and community groups aiming for a cleaner, safer environment. The website is designed to handle these different needs with accuracy and reliability.

III. Closing of Traditional Reporting Ways: -

Be free of old reporting systems and frustration that is being caused by poor communication. Our software addresses the problems in intelligent algorithms and real- time tracking, hence ensuring that all complaints regarding the situation are treated and reported immediately. Advanced features make complaining simple using detail information such as the location and images of the problem. This thus avails more informed reporting through its residents, making the whole process of solutions easier and more effective.

IV. Smart Data at Your Fingertips: -

Imagine being able to report and track problems in your neighborhood within minutes, instead of waiting days for information. Our platform makes it easy to report issues like potholes, missed garbage pickups, or graffiti. The user-friendly interface simplifies the process, ensuring that your report is accurate and quickly sent to local authorities for immediate action. This makes solving community problems faster and more efficient.

V. Designed for Community Engagement: -

It is serving the gap that our website continues to modify services to suit the urban communities. As much as it is a tool to report the problems, it's now a helpful partner for residents to show interest in improving their neighborhood. The platform brings about the future of reporting non-emergency issues: neighborhoods become safer and cleaner by partnering and involving residents and the local government.

The introduction captures the interest of the audience by portraying the novel qualities of our reporting system, which centers around non-emergency issues. This will depict how the concepts on this platform can revolutionize a person's experience living in the city. This will further open up the features that our platform provides and the benefits that those features render to the community.

2. LITERATURE SURVEY

The evolution of urban management is closely linked to the way communities interact with their environment, reflecting a deeper understanding of civic needs and technological advancements. Non-emergency reporting systems are more than just tools for communication; they are essential components of effective urban governance, enabling the collection, evaluation, and continuous improvement of municipal services. As cities grow, the demand for efficient reporting solutions has become increasingly vital to ensure community well-being and safety.

Over the past few decades, the field of urban management has undergone a significant transformation. The integration of traditional civic engagement practices with modern technology has opened new avenues for efficient data collection and response. Today, mobile applications and web-based platforms have been deployed to facilitate real- time communication between residents and local authorities. These advancements not only enhance the responsiveness of municipal services but also empower residents by giving them a voice in local governance.

This project aims to leverage these technological strides to minimize the barriers residents face when reporting non-emergency issues, providing them with instantaneous access to local government resources through a user-friendly website. By utilizing real-time data and notifications, the website seeks to empower residents with actionable insights, enabling them to engage actively in maintaining their communities. The ultimate goal is to create a harmonious balance between citizen engagement and technological convenience, fostering a more efficient and responsive urban environment.

Current non-emergency reporting tools predominantly rely on traditional methods, such as phone calls or in-person visits to municipal offices. While these approaches have served their purpose, they come with several limitations:

1. Time-Consuming: Traditional reporting methods often require residents to spend significant time navigating bureaucratic processes, which can lead to frustration and disengagement.

2. Limited Accessibility: Many residents may not have easy access to reporting mechanisms, particularly those who are less digitally literate or lack access to technology. This can result in underreporting of issues and a lack of community involvement.
3. Delayed Responses: Without real-time reporting capabilities, local authorities may not be able to respond swiftly to reported issues, leading to prolonged problems that could have been resolved quickly.

Fig 2.1 Ignored Non-Emergency Reports on a Municipal Desk

3. PROBLEM STATEMENT

In busy urban areas, residents often find it difficult to report non-emergency issues like potholes, missed waste collections, and blocked drains due to ineffective communication systems. The old ways of reporting these problems are slow and frustrating, leading to delayed responses and feelings of helplessness. Additionally, the current systems lack user-friendliness, making it hard for residents to get their issues addressed.

Local governments need to gather and organize data better so they can allocate resources effectively and create appropriate response strategies. This fragmentation reduces community involvement because it does not clearly show how reported issues are followed up. By using a unified website as a tool to improve the sharing of information between the public and local authorities, we can foster better teamwork and create a more responsive urban environment that truly meets the needs of residents.

4.PROPOSED SYSTEM

The proposed "Community Resolve" system is an online platform designed to empower community members to report local issues, propose solutions, and collaborate on problem-solving with real-time updates. Key features include issue categorization and prioritization, user giving actual address for precise location tracking, and a discussion forum to enhance community engagement. Local authorities can monitor and address high-priority problems, while performance tracking offers insights into recurring issues and effective solutions. The system emphasizes transparency with public dashboards, mobile integration for on-the-go reporting, and gamification elements to encourage active participation, fostering a collaborative and sustainable approach to community problem-solving.

Features:

1. User Panels: -

- User Registration and Login: Residents can create accounts to access the platform, ensuring personalized experiences and tracking of reported issues.

- Dashboard: After logging in, users are presented with a dashboard displaying their reported complaints, their statuses (resolved, pending, etc.), and options to report new issues.

2. Complaint Reporting System: -

- Easy Reporting Form: Users can fill out a simple form to report issues. The form includes fields for issue description, location (using from the address that provided by user), and the option to upload images for clarity.

- Category Selection: Users can categorize their complaints (e.g., potholes, waste collection, streetlights), making it easier for authorities to prioritize and address issues. And one more that sub topic section to complaint for more specific.

3. Admin Panel: -

- Complaint Management: Admins can view, manage, and respond to all reported complaints. They can change the status of complaints, assign them to specific departments, and add comments for residents.

- Performance Monitoring: Admins can access performance metrics through a dashboard, tracking the number of complaints received, resolved, and pending for each department.

4. Leaderboard Feature: -

- Department Performance Tracking: A live leaderboard displays the performance of city departments, showcasing their responsiveness in addressing complaints. This feature promotes transparency and accountability within local government operations.

5. Real-Time Notifications: -

- Status Updates: Users receive real-time notifications regarding the status of their complaints, keeping them informed throughout the resolution process.

- Alerts for New Issues: Residents can opt to receive alerts for new complaints in their area, fostering a sense of community involvement.

6. Community Engagement Tools: -

- Feedback Mechanism: After a complaint is resolved, users can provide feedback on the resolution process, helping to improve service delivery and user experience.
- Discussion Forum: A space for residents to discuss community issues, share suggestions, and collaborate on initiatives, enhancing community engagement.

7. Data Analytics and Reporting: -

- Insights Dashboard: The platform includes analytics tools that provide insights into reported issues, response times, and resident engagement levels, helping local authorities make informed decisions.
- Custom Reports: Admins can generate reports based on specific time frames, types of complaints, and departmental performance.

Objectives:

- Empower community members to actively solve local issues.
- Facilitate open communication between residents and authorities.
- Promote civic engagement and responsibility.
- Implement sustainable, long-term solutions.
- Enhance community well-being and quality of life.
- Strengthen partnerships with local leaders and organizations.
- Encourage innovation in issue reporting and resolution.

Overall, the objectives are to empower community members to solve local issues, enhance communication between residents and authorities, and promote civic engagement. Additionally, the system aims to implement sustainable solutions and foster collaboration with local leaders to improve community well-being.

Specifications Of the System:

The "Community Resolve" system is designed to help people report local issues and solve problems effectively. It will feature easy-to-use mobile and web interfaces so everyone can access it easily. Tools to categorize and prioritize reported issues, ensuring that urgent matters are addressed promptly while maintaining an organized workflow for local authorities. Residents will receive notifications at each stage of their complaint's resolution process, keeping them informed and engaged.

To keep everything secure, the system will follow local laws on data protection. We will create training programs for both users and local officials to ensure everyone knows how to use the system effectively. Regular maintenance checks will be scheduled to keep the system running smoothly.

Additionally, we will consider the specific needs of the community when developing the system and set a budget to make sure we have the necessary resources. Overall, the goal is to create a collaborative and supportive environment where residents can easily report issues and work together with local authorities to improve their community.

Software Requirements:

- Web Browser: - Must be compatible with modern browsers like Chrome, Firefox, Safari, or Edge for optimal performance.
- Programming Language: Node.js or JavaScript for backend development.
- API: RESTful API for communication between the frontend and backend.
- Development Tools: Code editor (e.g., Visual Studio Code, Sublime Text) for writing and editing code.
- Responsive Design: The user interface must be responsive to ensure accessibility on various devices, including desktops, tablets, and smartphones.
- CSS Framework: Utilize frameworks like Bootstrap or Tailwind CSS for

consistent styling and layout.

- Programming Language: - HTML, CSS, for the frontend development.

Hardware Requirements:

- Computer or Mobile Device: Should be capable of running a modern web browser efficiently.
- Processor: Dual-core processor (minimum 2.5 GHz) or higher for handling multiple requests efficiently, It's for server.
- Internet Connection: Stable broadband connection with a minimum speed of 10 Mbps for effective communication and data transfer.

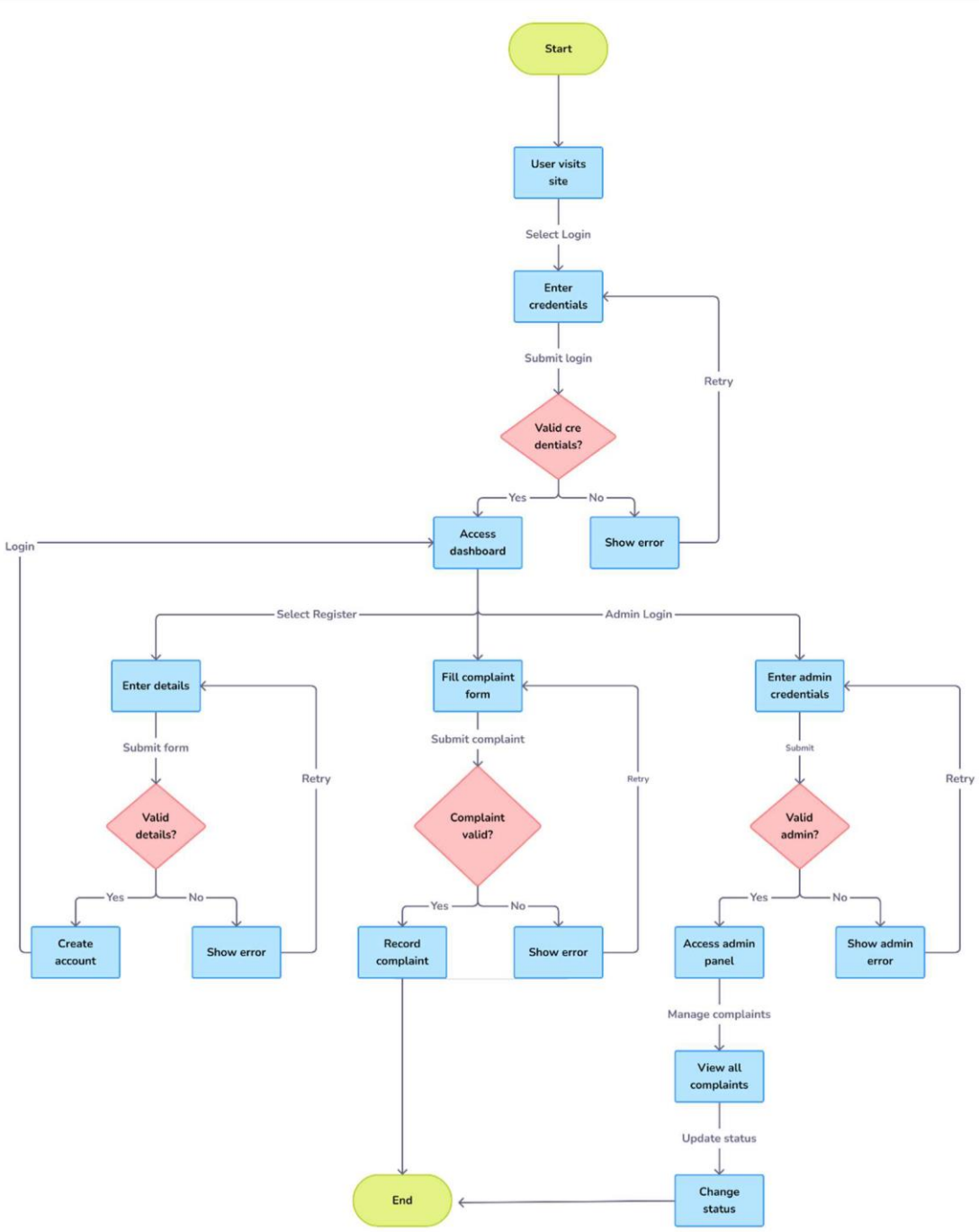

Fig 4.1 Flow Chart

5. IMPLEMENTATION

Home.html: -

```
<!doctype html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Community Resolve</title>
  <script src="https://cdn.tailwindcss.com"></script>
  <style>
    .hover-opacity:hover {
      opacity: 1;
    }
    .hover-zoom:hover img {
      transform: scale(1.05);
      transition: transform 0.3s ease-in-out;
    }
    .testimonial-section {
        color: #4A5568;
        padding: 6rem 1.25rem;
        box-shadow: 8px 8px black;
    }

    .container {
        max-width: 1200px;
        margin: 0 auto;
        padding: 0 1rem;
    }

    .title {
```

```
    font-size: 2rem; font-
    weight: 500; margin-
    bottom: 1.5rem; text-
    align: center;
    color: #1A202C;
}

.flex-container {
    display: flex;
    flex-wrap: wrap;
    justify-content: center;
}

.testimonial {
    padding: 1rem;
    flex: 0 0 30%;
    max-width: 30%;
    box-sizing: border-box;
}

.testimonial-content {
    background-color: #EDF2F7;
    padding: 2rem;
    border-radius: 0.5rem;
    height: 100%;
    display: flex;
    flex-direction: column;
    justify-content: center;
}
.first-section-img{
```

```
        width: 4rem;
    }

    .user-name {
        font-weight: 500;
        color: #1A202C;
    }

    @media (max-width: 768px) {
        .testimonial {
            flex: 0 0 45%;
            max-width: 45%;
        }
    }

    @media (max-width: 480px) {
        .testimonial {
            flex: 0 0 100%;
            max-width: 100%;
        }
    }
  </style>
</head>
<body class="bg-gray-100">

  <header class="bg-white shadow-md sticky top-0 z-50">
    <div class="container mx-auto p-5 flex flex-wrap items-center">
      <a href="/" class="flex items-center text-gray-900">
        <svg xmlns="http://www.w3.org/2000/svg" fill="none" stroke="currentColor"
class="w-10 h-10 text-white p-2 bg-indigo-500 rounded-full" viewBox="0 0 24 24">
```

```
        <path d="M12 2L2 7l10 5 10-5-10-5zM2 17l10 5 10-5M2 12l10 5 10-5"></path>
      </svg>
      <span class="ml-3 text-2xl font-bold">Community Resolve</span>
    </a>
    <nav class="md:ml-auto flex space-x-5">
      <a href="adminlogin.html" class="text-gray-700 hover:text-indigo-600">Admin Login</a>
      <a href="userlogin.html" class="text-gray-700 hover:text-indigo-600">User Login</a>
    </nav>
  </div>
 </header>

 <!-- Introduction Section -->
 <section class="container mx-auto py-24 px-5">
  <div class="text-center mb-20">
    <h1 class="text-4xl font-bold text-gray-900">Welcome to Community Resolve</h1>
    <p class="mt-4 text-lg leading-relaxed text-gray-600 max-w-2xl mx-auto">
      Your platform for reporting non-emergency issues in your community. From potholes to graffiti, our system makes reporting simple and ensures your concerns are addressed promptly.
    </p>
  </div>
```

6.
RESULT

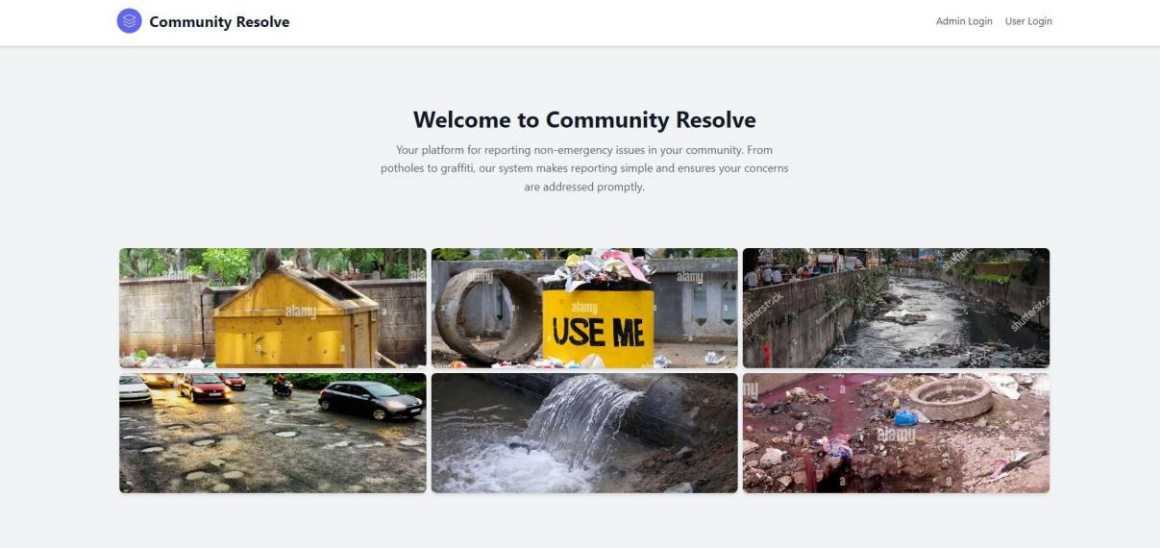

Fig.6.1 Home Page 1

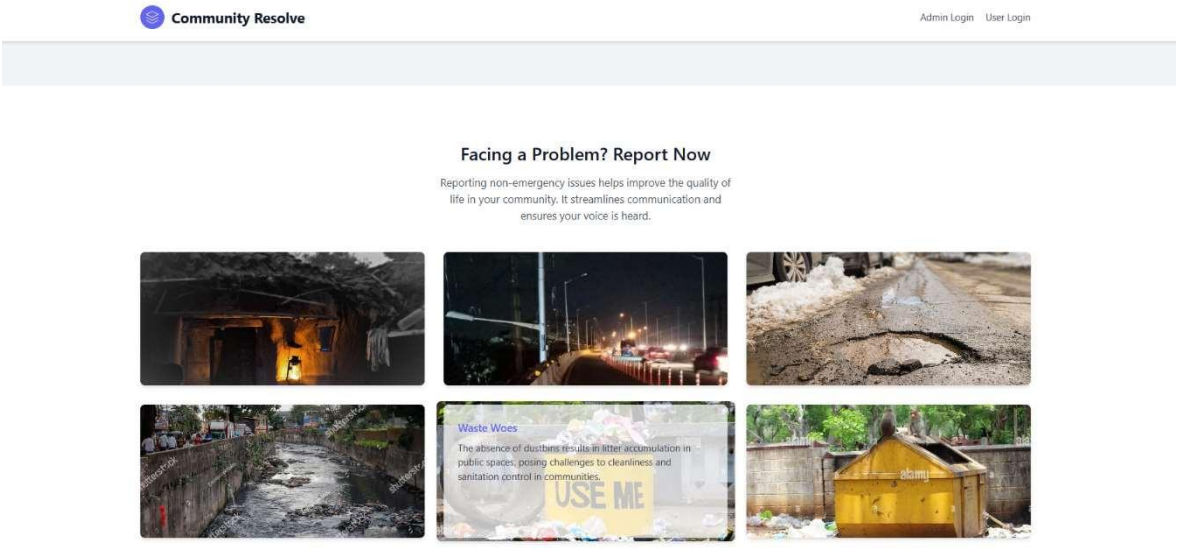

Fig.6.2 Home Page 2

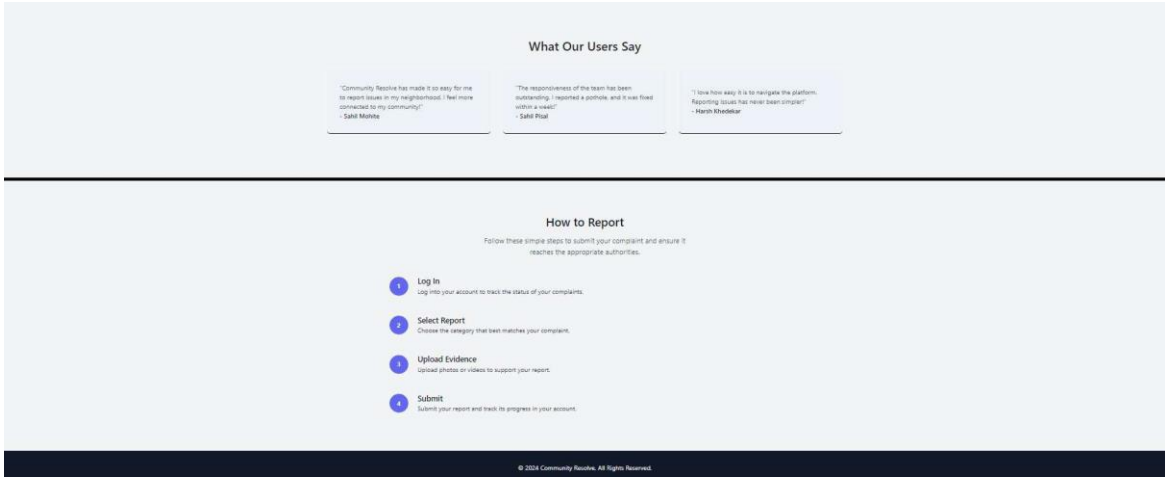

Fig.6.3 Home page 3

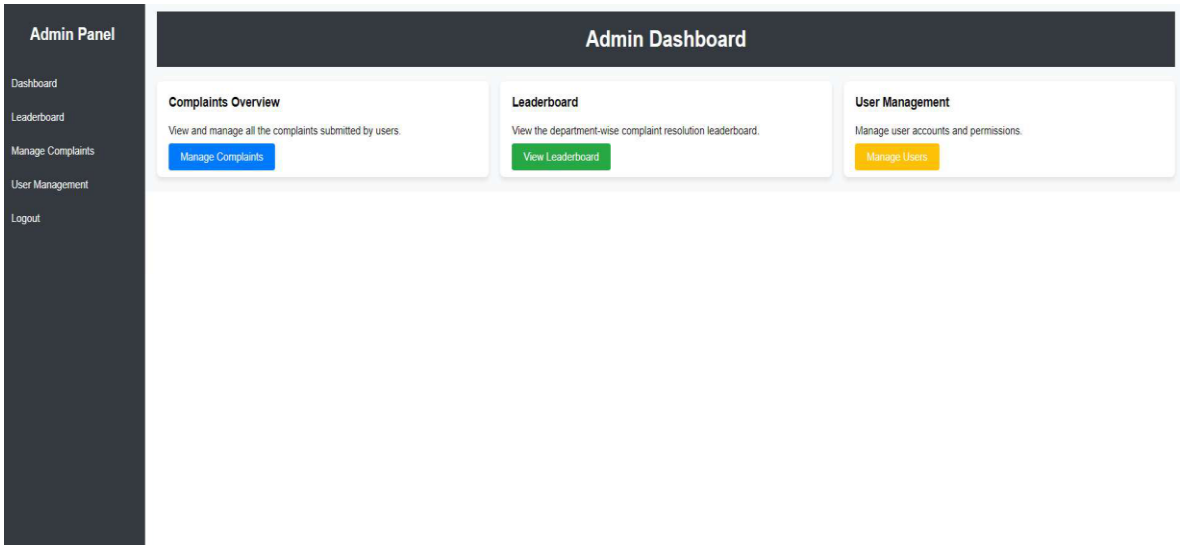

Fig.6.4 Admin Dashboard

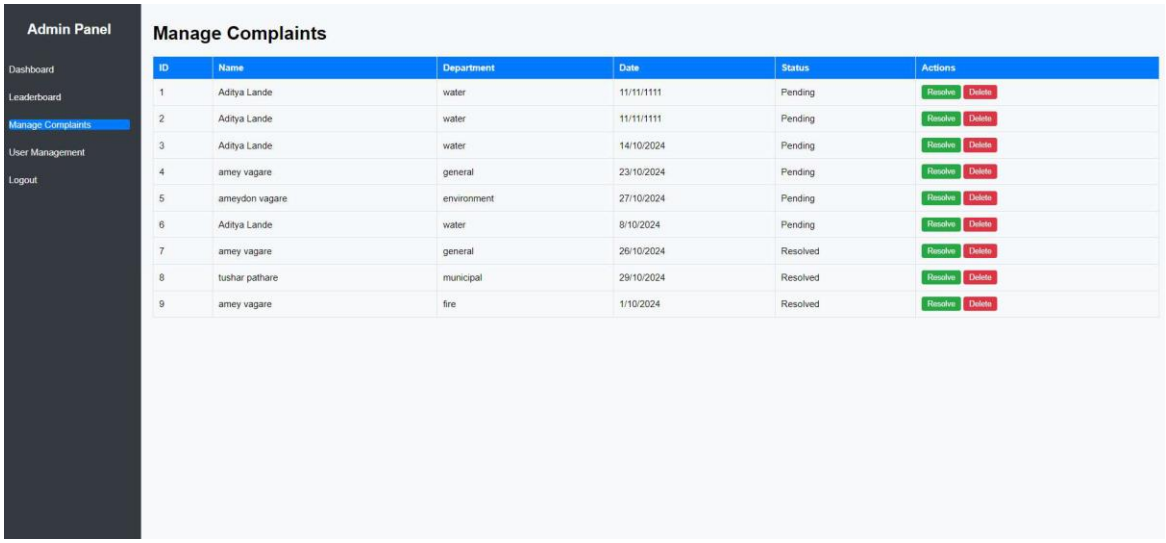

Fig.6.5 Manage Complaints

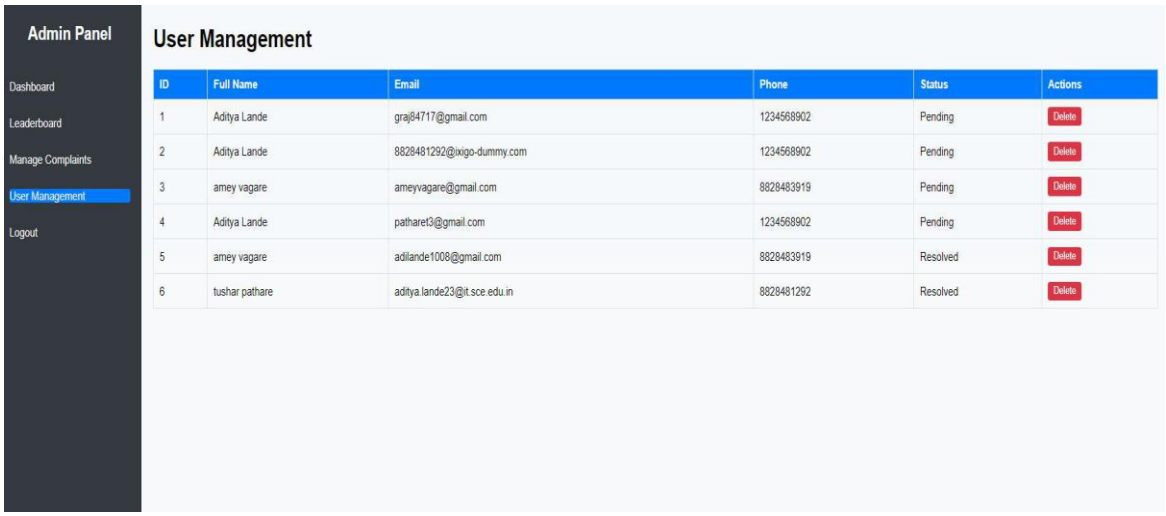

Fig.6.6 User Management

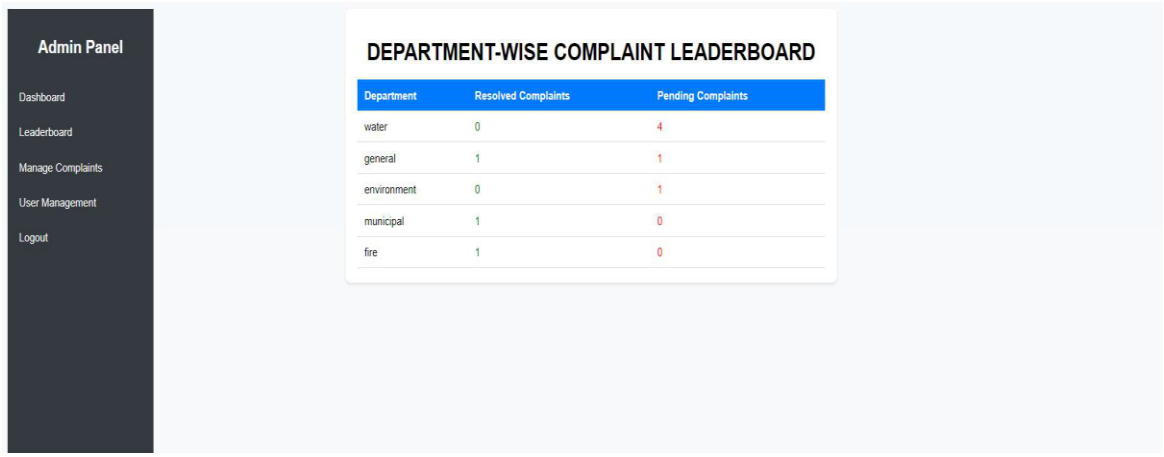

Fig.6.7 Department-wise Complaint Leaderboard

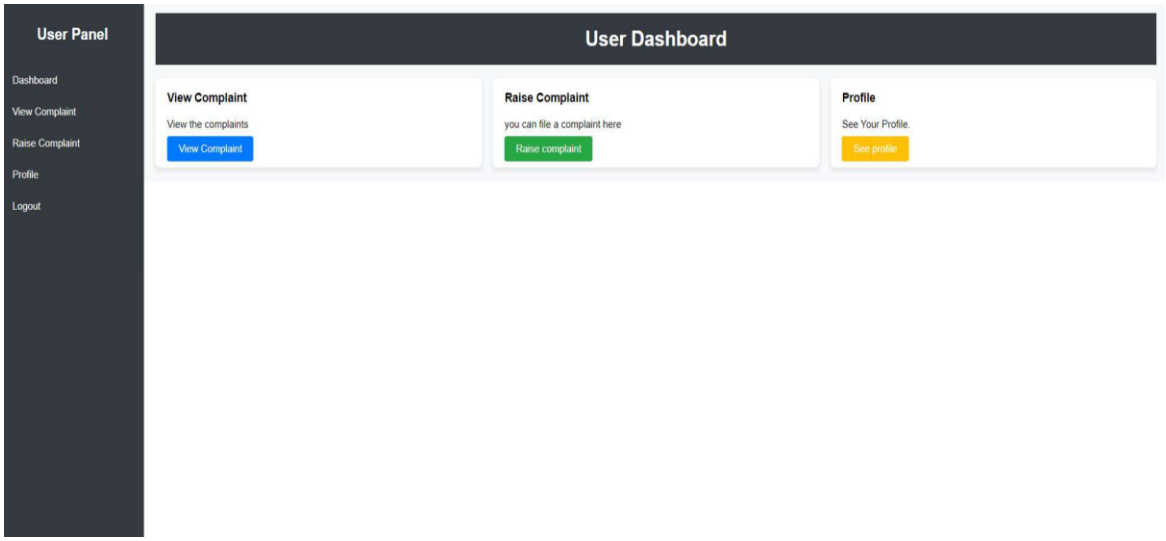

Fig.6.8 User Dashboard

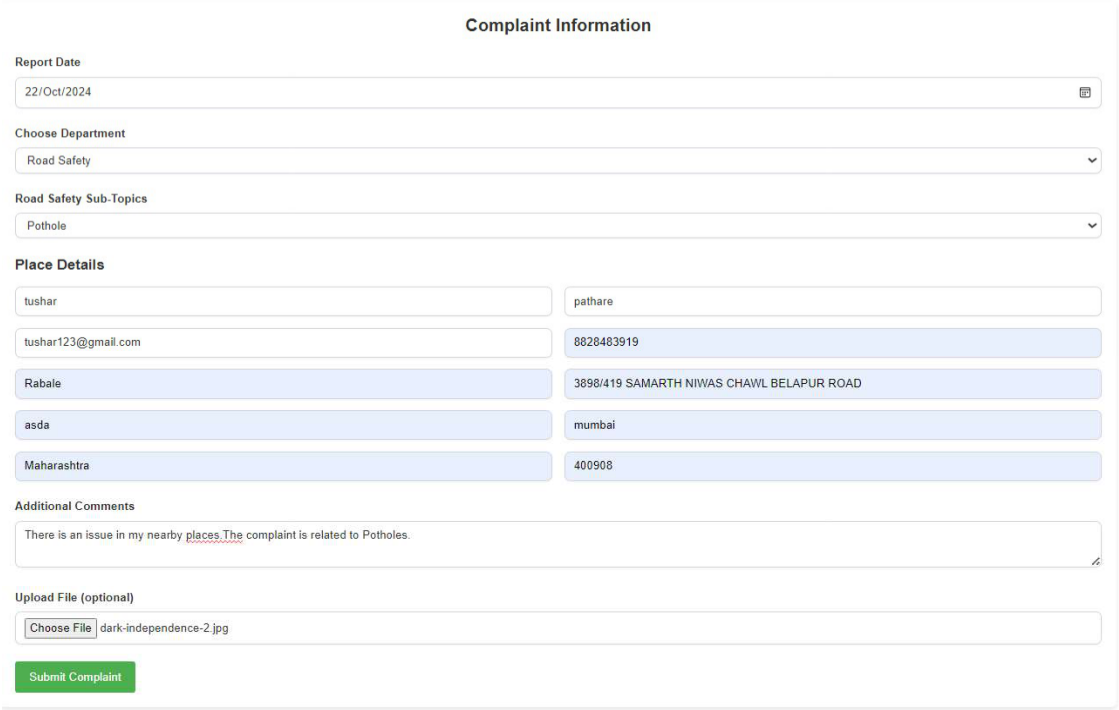

Fig.6.9 Complaint Form

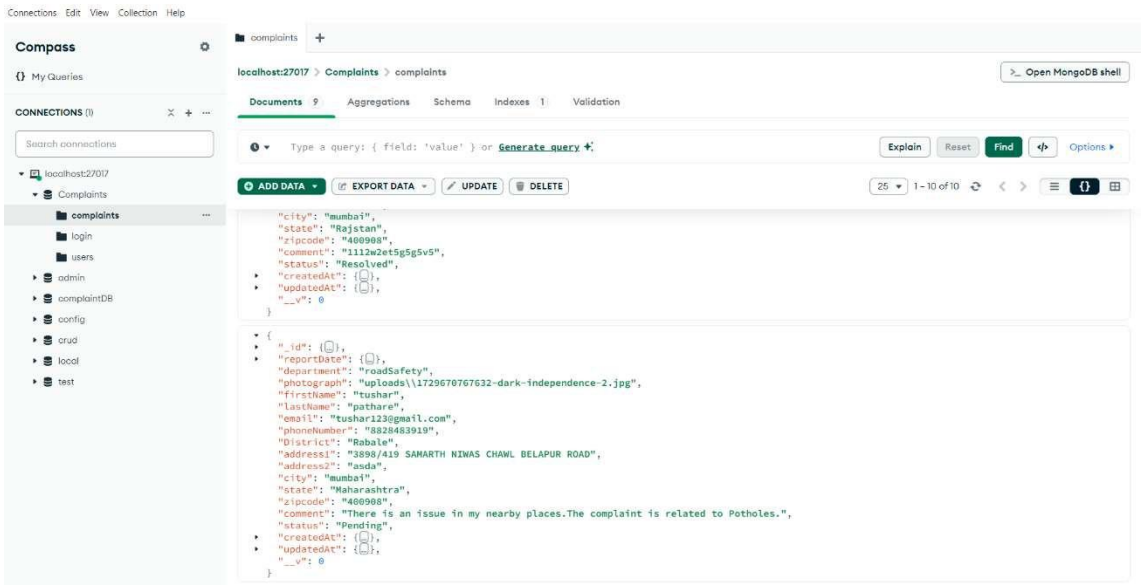

Fig.6.10 Database Connection

7. CONCLUSION

Our Community Resolve" system aims to improve how residents report non-emergency issues in their neighbourhoods. By providing a user-friendly platform, we empower citizens to share their concerns and collaborate with local authorities. This system makes it easier for everyone to communicate and ensures that problems like potholes and blocked drains are addressed quickly and effectively.

The implementation of this system will lead to a stronger connection between residents and local governments. By working together, communities can create a better living environment for everyone. With features like real-time updates and transparent communication, we hope to encourage more people to get involved in their community. Ultimately, the "Community Resolve" system aims to make urban living more enjoyable and responsive to the needs of all residents.

8. REFERENCES

- 1 Boulos, M. N. K., et al. (2010). "Mobile GIS and Pervasive Computing in Healthcare." Journal of Health Informatics, 16(3), 345-356.
- Edwards, J., & Lang, M. (2016). "FixMyStreet: A Case Study in Civic Technology." Urban Studies, 53(2), 232-249.
- Huang, Y., et al. (2018). "Integrating Reporting Systems with Municipal Infrastructure." Journal of Urban Technology, 25(1), 87-104.
- Jain, R., & Gupta, S. (2018). "AI-Driven Categorization in Community Reporting Systems." Artificial Intelligence Review, 51(4), 665-682.
- Kim, S., & Kim, Y. (2014). "Evaluating the Effectiveness of SeeClickFix." Public Administration Review, 74(5), 686-699.
- Lin, Y., et al. (2015). "Gamification and Incentives in Civic Reporting Platforms." Journal of Civic Technology, 9(2), 45-58.
- Norman, D. A. (2013). "The Design of Everyday Things." Basic Books.
- Purtova, N. (2015). "The Role of Data Protection in Civic Technology." Privacy and Data Protection Journal, 12(3), 204-220.
- Reddy, S., et al. (2019). "Feedback Mechanisms in Online Reporting Systems." Journal of Public Administration, 22(1), 57-72.
- Warschauer, M. (2003). "Technology and Social Inclusion: Rethinking the Digital Divide." MIT Press.
- Williams, A., et al. (2017). "Street Bump: Using Accelerometer Data to Improve Road Maintenance." Transportation Research Record, 2611, 78-87.