A WEB PLATFORM FOR ANALYZING AND SOLVING THE PROBLEMS IN THE SOCIETY

## A PROJECT REPORT

***Submitted by***

|  |  |
| --- | --- |
| **SHERIN .S** | **(963520104046)** |
| **POOJA .J.P** | **(963520104036)** |
| **VIJESH .G** | **(963520104312)** |
| **ASLIN .R** | **(963520104015)** |

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ANNA UNIVERSITY : CHENNNAI 600 025

# BONAFIDE CERTIFICATE

Certified that this project report **“ A WEB PLATFORM FOR ANALYZING AND SOLVING PROBLEMS IN THE SOCIETY**” is the bonafide work of “**SHERIN. S (963520104046) , POOJA .J.P (963520104036) , VIJESH .G (963520104312) , ASLIN . R(963520104015)”** who carried out the project work under my supervision.

## SIGNATURE SIGNATURE

Dr. F.R. Shiny Malar M.Tech., Ph.D., Mr.C. Bastin Rogers M.E.,

## HEAD OF THE DEPARTMENT SUPERVISOR

Professor & Head Associate professor

Department of CSE Department of CSE

Stella Mary’s College of Engineering

Stella Mary’s College of Engineering

Aruthengenvilai-629 202 Aruthengenvilai-629 202

Submitted for the project viva-voce held on…………………………

**INTERNAL EXAMINER EXTERNAL EXAMINER**

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# ABSTRACT

This project involves the development of a web application that enables users in a nation to provide feedback and solutions to societal problems. The web application allows administrators to post new schemes and problems, which users can then provide feedback on and offer their own solutions. The feedback data is then analyzed using data analysis techniques, and machine learning algorithms are used to generate solutions that are in line with the expectations of the users.

The project focuses on improving the user experience by creating an easy-to-use web application that includes features such as login and registration, problem and solution posting, and viewing existing problems and solutions. Additionally, features such as notifications and a rating system are included to keep users informed about the progress of problems and solutions.

The project also addresses ethical concerns regarding the use of machine learning algorithms to generate solutions by ensuring transparency in the process. Overall, the project aims to facilitate communication between users and the government, and provide a platform for generating solutions to societal problems.

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# LIST OF ABBREVIATIONS

|  |  |
| --- | --- |
| HTML | Hypertext Markup Language |
| CSS | Cascading Style Sheets |
| PYC | Python Compiled File |
| API | Application Programming Interfaces |
| UML | Unified Modelling Language |
| UI | User Interface |
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**Chapter – 1**

**Introduction**

**1.1 OVERVIEW**

The purpose of this project is to develop a web application that allows administrators to post various schemes and problems, and citizens to provide feedback and solutions to these problems. The application is designed to facilitate communication between citizens and administrators, and enable the generation of solutions based on user feedback.

The web application has been developed using various technologies, including HTML, CSS, Bootstrap 5, Django, and dbSQLite3. These technologies have been used to create a user-friendly interface and ensure seamless functionality across different devices and platforms.

The application features a home page that provides users with access to different pages, including a problem statement page that lists various problems and allows users to post their own problems and solutions. The application also allows users to view other people's problems and solutions, and administrators can easily access and analyze user feedback using the data analysis and machine learning techniques implemented in the application.

The project report describes the design and implementation of the web application, including the various features and functionality of the application. The report also discusses the various techniques used for data analysis and machine learning, and how they have been implemented in the application.

Overall, this web application has the potential to facilitate communication between citizens and administrators, and help to solve real-world problems in society. The application's user-friendly interface, coupled with its data analysis and machine learning capabilities, makes it an effective tool for generating solutions based on user feedback. The report provides an in-depth analysis of the web application's design and functionality, and its potential impact on society.

**1.2 Objective:**

The objective of this project is to develop a web application that enables citizens to provide feedback and solutions to problems faced by society, facilitating communication between citizens and administrators. The application's data analysis and machine learning capabilities will be leveraged to generate solutions based on user feedback, providing administrators with valuable insights and enhancing decision-making processes.

To achieve this objective, the project will focus on the following:

1. Designing and implementing a user-friendly web application: The web application will be designed to be easy to use and accessible to citizens with different levels of technical expertise. The application's user interface will be optimized for different devices and platforms, ensuring that it is accessible to as many people as possible.
2. Developing a problem statement page: The application will feature a problem statement page that lists various problems faced by society. Citizens will be able to post their own problems and solutions, enabling administrators to gather valuable feedback and insights from a diverse range of users.
3. Implementing data analysis techniques: The web application will leverage data analysis techniques to provide administrators with insights into user feedback. The data analysis techniques will be used to filter out unwanted or repeated feedback, enabling administrators to focus on the most critical issues.
4. Incorporating machine learning capabilities: Machine learning techniques will be used to generate solutions based on user feedback. The machine learning algorithms will analyze the data collected from user feedback and provide recommendations for potential solutions. This will help administrators to make informed decisions and develop effective strategies to address society's problems.
5. Testing and evaluating the application: The application will be thoroughly tested and evaluated to ensure that it meets its objectives and functions as intended. Feedback from users will be solicited and analyzed to identify areas for improvement and enhance the application's functionality.

The project's success will be evaluated based on the following criteria:

1. The application's ability to facilitate communication between citizens and administrators.
2. The effectiveness of the data analysis and machine learning techniques in generating solutions based on user feedback.
3. The application's user-friendliness and accessibility.
4. The quality of the application's design and functionality.
5. The application's potential impact on society and its ability to provide effective solutions to real-world problems.

The development of a web application that facilitates communication between citizens and administrators and leverages data analysis and machine learning techniques to generate solutions based on user feedback is a critical step in addressing the problems faced by society. The objective of this project is to develop a web application that meets these criteria and provides a valuable tool for administrators to make informed decisions and develop effective strategies to address society's problems.

The project will focus on designing and implementing a user-friendly web application, developing a problem statement page, incorporating data analysis and machine learning capabilities, and testing and evaluating the application. The success of the project will be evaluated based on the application's ability to facilitate communication, the effectiveness of the data analysis and machine learning techniques, the application's user-friendliness, the quality of the design and functionality, and the potential impact of the application on society.

The successful completion of this project will provide administrators with a powerful tool to address society's problems and enable citizens to provide valuable feedback and solutions. The project's outcomes will contribute to the development of effective strategies to address real-world problems and enhance the quality of life for people in society.

**Problem Definition:**

The problem we aim to address is the lack of efficient communication between citizens and administrators regarding the various schemes and problems in society. Often, citizens are unaware of the schemes implemented by the government, and are unable to provide feedback or suggest solutions to existing problems. This results in a gap between citizens and administrators, leading to ineffective governance.

**CHAPTER-2**

**LITERATURE SURVEY**

Citizen participation is a broad term that encompasses a variety of ways in which citizens can get involved in the governance of their communities. It can include activities such as voting, volunteering, contacting elected officials, and attending public meetings. Citizen participation is important because it helps to ensure that governments are accountable to the people they serve. It also helps to build trust between citizens and their government, and it can lead to better decision-making.

Online platforms that allow citizens to provide feedback and solutions to societal problems have become increasingly popular in recent years. These platforms aim to bridge the gap between citizens and administrators, allowing for better communication and collaboration in problem-solving.

One such platform is FixMyStreet, which was launched in the United Kingdom in 2007. This platform allows citizens to report issues such as potholes, broken streetlights, and graffiti to their local authorities. The reports are then passed on to the relevant authorities, who are responsible for addressing the issues. FixMyStreet has been successful in engaging citizens in the problem-solving process and has helped to improve local communities.

Similarly, in India, the government launched the MyGov platform in 2014, which allows citizens to provide feedback on government policies and initiatives. The platform also allows citizens to participate in contests and surveys, and the feedback received is used to inform policymaking.

Another popular platform is OpenIDEO, which is a global online community that allows users to collaborate on solving various challenges. The platform has been used to address issues such as climate change, healthcare, and education, and has been successful in generating innovative solutions.

There have been several studies on the effectiveness of online platforms in citizen engagement and problem-solving. For example, a study by Kim and Lee (2014) found that online platforms can facilitate citizen participation in local governance and improve the quality of decision-making. Similarly, a study by Lee and Kwak (2017) found that online platforms can help to address social problems by leveraging the collective intelligence of citizens.

Machine learning has also been used in various online platforms to improve the accuracy and efficiency of data analysis. For example, in the context of citizen science, machine learning algorithms have been used to classify images and identify species (Sukumar et al., 2017). In the context of social media, machine learning algorithms have been used to analyze user sentiment and identify trending topics (Huang et al., 2017).

The literature suggests that online platforms can be effective in engaging citizens in problem-solving and improving the quality of decision-making. Machine learning can also be used to improve the accuracy and efficiency of data analysis in these platforms. However, further research is needed to understand the effectiveness of these platforms in different contexts and to identify best practices for their design and implementation.

In the context of this project, the literature survey highlights the potential of the proposed web application in facilitating communication between citizens and administrators and generating solutions based on user feedback. The survey also provides insights into the design and implementation of similar platforms and the use of machine learning in data analysis.

The proposed web application will be designed to be user-friendly and accessible to citizens with different levels of technical expertise. The application will also be designed to be scalable, so that it can accommodate a large number of users.

The web application will use a variety of machine learning techniques to analyze user feedback and generate solutions. These techniques will include natural language processing, sentiment analysis, and machine learning algorithms.

The web application will be evaluated in terms of its ability to facilitate communication between citizens and administrators, generate solutions based on user feedback, and improve the quality of decision-making.