



Academy of  
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# Police Station Grievance App

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## 1. Introduction

The effective handling of citizen grievances is an essential part of public safety. Traditional complaint registration at police stations is often **manual, time-consuming, and lacks proper categorization**, leading to delays in addressing urgent issues.

To address this challenge, we developed a **web-based Police Station Grievance App** that allows citizens to register complaints digitally. The system automatically classifies complaints into **High, Medium, or Low urgency levels** using **keyword-based classification**. Complaints are displayed in a **sorted, color-coded list**, enabling police officials to prioritize cases effectively.

This project demonstrates the practical application of web technologies to enhance **citizen-police communication** and make grievance redressal more **efficient, transparent, and reliable**.

## 2. Problem Statement

There is a lack of a **simple and efficient system** for citizens to log complaints at police stations.

- Complaints are often not categorized correctly.
- Urgent matters may be delayed due to manual handling.
- Citizens lack transparency about their registered complaints.

Hence, a solution was required that allows **easy digital complaint registration with automatic classification** for faster response.

## 3. Objectives

The main objectives of this project are:

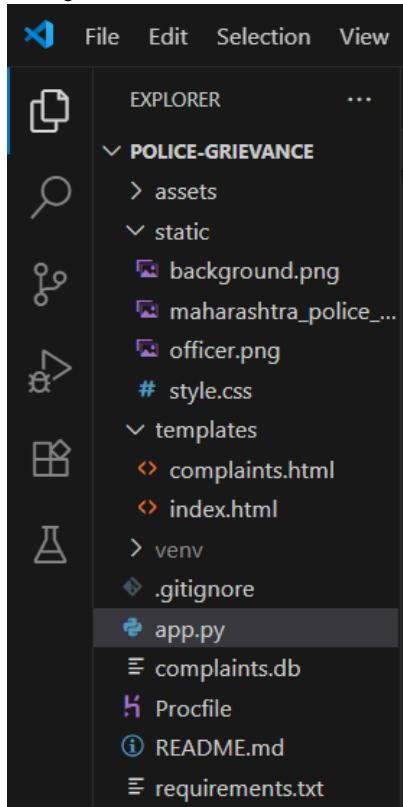
1. To provide an **easy-to-use digital platform** for citizens to log complaints.
2. To automatically **classify complaints into urgency levels** (High / Medium / Low).
3. To display complaints in a **sorted, color-coded list** for quick police action.
4. To reduce police **response time** by highlighting high-priority complaints first.
5. To improve **citizen satisfaction** by ensuring a transparent and efficient complaint system.

## 4. Proposed Solution

Our solution is a **Flask + SQLite based web application** with a clean and user-friendly interface.

- Citizens can log complaints by providing:
  - Full Name
  - Contact Number
  - Complaint Description
- The system uses a **keyword-based classifier** to analyze the text of complaints and assign them urgency levels:
  - **High** (serious crimes like murder, rape, terrorism)
  - **Medium** (theft, fraud, accidents, harassment)
  - **Low** (minor nuisances, noise, littering)
- The complaints are stored securely in an **SQLite database** and displayed on the **Complaints page** in a **sorted order** (High → Medium → Low).

## 5. Project Structure



- **app.py** – Main Flask backend file; manages routing, complaint submission, urgency classification, database operations, and template rendering.

- complaints.db – SQLite database storing all submitted complaints with urgency levels.
- templates/ – Contains frontend HTML pages:
  - index.html – Complaint submission form.
  - complaints.html – Complaint listing page.
- static/ – Stores design resources:
  - style.css – Stylesheet for UI design.
  - officer.png, maharashtra\_police\_logo.png, background.png – Images used in the interface.
- requirements.txt – Lists Python dependencies required to run the project.
- Procfile – Deployment configuration file (for Render/Heroku).
- README.md – Documentation file with setup instructions and project details.
- venv/ – Virtual environment for local dependency management.
- assets/ – Optional folder for additional resources.

## 6. System Workflow

### 1. Homepage:

- Shows the complaint submission form.
- Includes fields for **Name, Contact Number, and Complaint description**.
- Features police logo and officer image for a professional look.

### 2. Complaint Submission:

- User submits a complaint.
- System processes text using **regex-based keyword detection**.
- Urgency level is automatically classified.

### 3. Complaint Storage:

- Data is inserted into the **SQLite database (complaints.db)**.
- Old complaints are re-classified if the keyword database is updated.

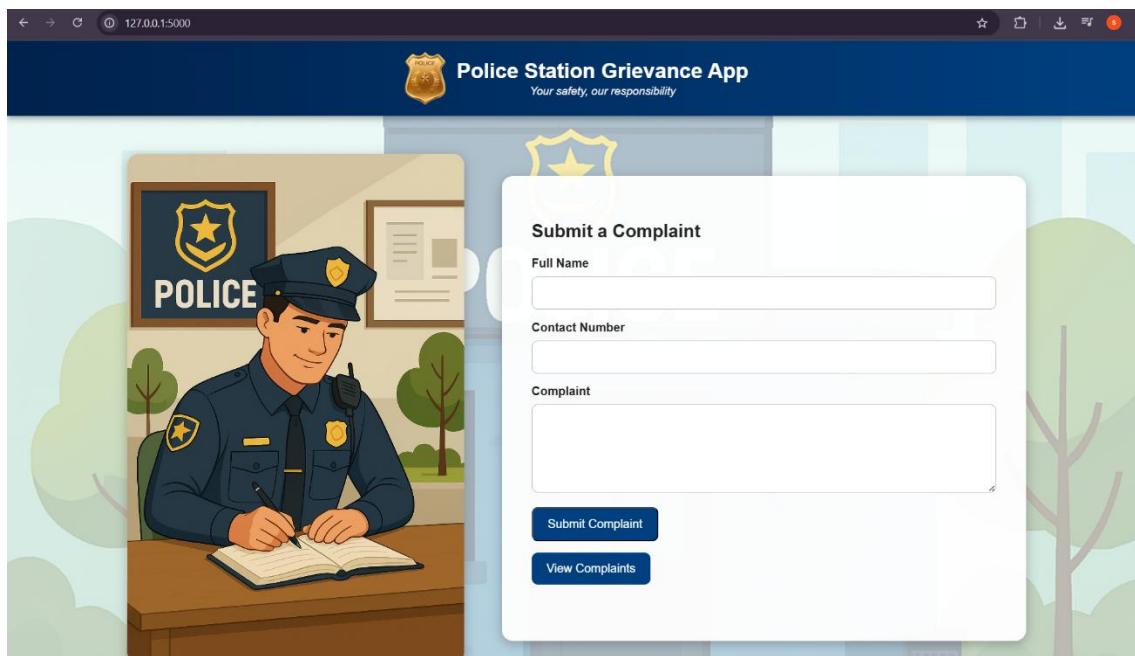
### 4. Complaints Page:

- Displays all complaints in a **tabular format**.
- Sorted by urgency and complaint ID.
- Each row is **color-coded** based on urgency.

## 7. Working Demo

- **Demo Video:** [YouTube Link](#)

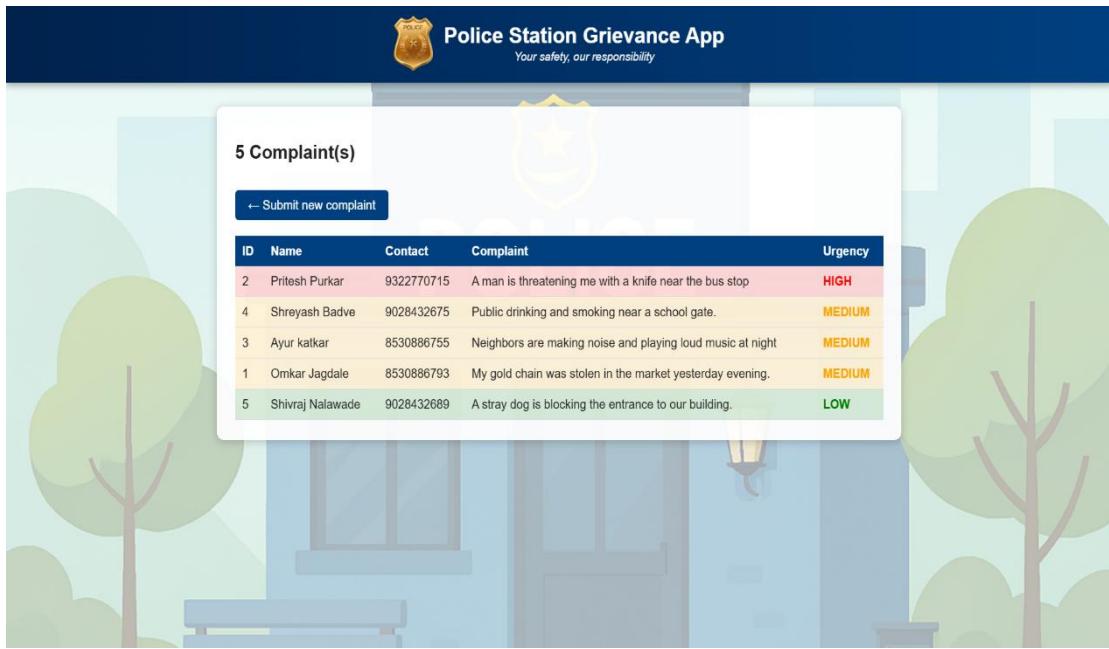
**Demonstration Flow:**



1. Open homepage and fill complaint form.
2. Submit complaint → redirect to **Complaints Page**.
3. Complaint is displayed in **color-coded list**.
4. High-priority complaints automatically appear at the top.

## 8. Results

- Successfully developed a **working grievance redressal portal**.
- Citizens can log complaints digitally in **less than a minute**.
- Auto-classification ensures **critical issues are prioritized**.
- The **color-coded system** makes it easy for police to review cases.



## 9. Conclusion

The *Police Station Grievance App* successfully addresses the problem of managing public complaints by providing a structured, automated, and user-friendly solution. Through keyword-based classification and a clear, color-coded interface, the system enables police authorities to respond efficiently while ensuring transparency for citizens.

- Easy complaint submission through a web-based form.
- Automatic urgency classification into **High, Medium, or Low**.
- Sorted and color-coded complaint list for quick identification.
- Improves efficiency and systematic handling of grievances.

This system can be further scaled to include features like:

- Complaint tracking
- Email/SMS notifications
- Analytics and reporting

## 10. References

- **GitHub Repository** – Source code of the project:  
<https://github.com/shivraj-nalawade/police-grievance-portal.git>
  
- **YouTube Demonstration Video** – Project walkthrough and demo:  
<https://youtu.be/7wVOXimdmHg>