# Functional Requirement

1. Functional Requirements  
  
1.1 Complaint Registration Function   
Function ID: FR-01   
Description: Citizens can register a new complaint with detailed incident information and supporting documents.   
Input: Incident description, location, date, supporting documents, citizen ID.   
Output: A unique complaint ID, confirmation message, and complaint data stored in the database.  
  
1.2 View Complaint Details Function   
Function ID: FR-02   
Description: Police Personnel and Administrators can view detailed information about a complaint, including its current status and any related automated investigation data.   
Input: Valid complaint ID and user login credentials.   
Output: Complaint details, including incident description, location, date, status, and associated automated investigation information.  
  
1.3 Update Complaint Status Function   
Function ID: FR-03   
Description: Police Personnel and Administrators can update the status of a complaint and provide an optional comment.   
Input: Valid complaint ID, new status, optional comment.   
Output: Updated complaint status in the database, status change logged in the ComplaintStatusLog, and a notification sent to the Citizen.  
  
1.4 Delete Complaint Record Function   
Function ID: FR-04   
Description: Administrators can permanently delete a complaint record from the system.   
Input: Valid complaint ID and confirmation from the Administrator.   
Output: Deleted complaint record, deletion logged in the system, and notification sent to the Citizen and associated Police Personnel.  
  
1.5 Automated Investigation Initiation Function   
Function ID: FR-05   
Description: Police Personnel and Administrators can initiate an automated investigation for a registered complaint.   
Input: Valid complaint ID and user login credentials.   
Output: AutomatedInvestigation record created in the database, complaint status updated to "Automated Investigation In Progress," and notification sent to relevant Police Personnel.  
  
1.6 Modify Investigation Data Function   
Function ID: FR-06   
Description: Police Personnel and Administrators can modify data associated with an ongoing automated investigation, such as evidence, witness information, or investigation notes.   
Input: Valid complaint ID, editable investigation fields (e.g., evidence, notes), and user login credentials.   
Output: Updated AutomatedInvestigation data, complaint status updated if necessary, and notification sent to the Citizen and associated Police Personnel.  
  
1.7 View Investigation Progress Function   
Function ID: FR-07   
Description: Citizens, Police Personnel, and Administrators can view the progress of an automated investigation.   
Input: Valid complaint ID and user login credentials.   
Output: InvestigationProgress details displayed, access logged in the system, and any additional information such as pending actions or findings.  
  
1.8 Court Case Registration Function   
Function ID: FR-08   
Description: Administrators and Police Personnel can register a new court case linked to a complaint.   
Input: Valid complaint ID, court name, case type, filing date, and involved parties.   
Output: CourtCase record created and stored in the database, linked to the complaint, and notification sent to the Citizen.  
  
1.9 Update Court Case Status Function   
Function ID: FR-09   
Description: Police Personnel and Administrators can update the status of a court case and provide an optional comment.   
Input: Valid court case ID, new status, optional comment.   
Output: Updated court case status in the database, status change logged in the CaseStatusLog, and notification sent to the Citizen.  
  
1.10 View Court Case Details Function   
Function ID: FR-10   
Description: Citizens, Police Personnel, and Administrators can view detailed information about a court case, including related complaint data.   
Input: Valid court case ID and user login credentials.   
Output: CourtCase details displayed, access logged in the system, and related complaint information if applicable.  
  
1.11 Delete Court Case Record Function   
Function ID: FR-11   
Description: Administrators can permanently delete a court case record from the system.   
Input: Valid court case ID and confirmation from the Administrator.   
Output: Deleted court case record, deletion logged in the system, and notification sent to the Citizen and associated Police Personnel.  
  
1.12 Search for Crimes Function   
Function ID: FR-12   
Description: Police Personnel and Administrators can search for crime-related data using criteria such as keyword, date range, or location.   
Input: Search criteria (e.g., keyword, date, location).   
Output: List of matching crime-related records (complaints or court cases) with summary information and a log of the search activity.  
  
1.13 Search for Criminals Function   
Function ID: FR-13   
Description: Police Personnel and Administrators can search for criminal records using criteria such as name, age range, gender, or case ID.   
Input: Search criteria (e.g., name, age range, gender, case ID).   
Output: List of matching criminal records with summary information and a log of the search activity.  
  
1.14 Search for Investigation Records Function   
Function ID: FR-14   
Description: Police Personnel and Administrators can search for investigation records using complaint ID, investigation status, or keywords.   
Input: Search criteria (e.g., complaint ID, status, keyword).   
Output: List of matching investigation records with summary details and a log of the search activity.  
  
1.15 Citizen Submit Complaint Function   
Function ID: FR-15   
Description: Citizens can submit a new complaint through the system by filling out a form and uploading supporting documents.   
Input: Incident description, location, date, supporting documents, and valid citizen ID.   
Output: A unique complaint ID generated, complaint data stored in the database, and confirmation message sent to the Citizen.  
  
1.16 Citizen View Complaint Status Function   
Function ID: FR-16   
Description: Citizens can view the current status of a previously submitted complaint.   
Input: Valid complaint ID and user login credentials.   
Output: Complaint status displayed, including the stage of the automated investigation and any recent updates.  
  
1.17 Police Personnel Manage Complaints Function   
Function ID: FR-17   
Description: Police Personnel and Administrators can manage complaints by updating their status, escalating them, or adding notes.   
Input: Valid complaint ID and management action (e.g., update, escalate, add notes).   
Output: Updated complaint data in the database, management action logged, and notification sent to the Citizen if configured.  
  
1.18 Police Personnel Manage Investigations Function   
Function ID: FR-18   
Description: Police Personnel and Administrators can manage automated investigations by updating findings, pausing the investigation, or escalating to manual review.   
Input: Valid complaint ID and management action (e.g., update findings, pause, escalate).   
Output: Updated AutomatedInvestigation data, complaint status updated, and notification sent to the Citizen if configured.  
  
1.19 Administrator Manage Users Function   
Function ID: FR-19   
Description: Administrators can manage user accounts (Citizens, Police Personnel, and other Administrators) by creating, updating, or deleting them.   
Input: User details (e.g., name, role, contact information) and action (e.g., create, update, delete).   
Output: Updated user records in the database, management action logged, and notification sent to the affected user if configured.  
  
1.20 Administrator Configure System Settings Function   
Function ID: FR-20   
Description: Administrators can configure system-wide settings such as notification preferences, access control rules, and automated investigation parameters.   
Input: System settings configuration (e.g., notification settings, access rules).   
Output: Updated system settings stored in the database, configuration action logged, and new settings applied to the system.  
  
1.21 Manage Investigation Progress Function   
Function ID: FR-21   
Description: Police Personnel and Administrators can update the progress of an automated investigation, such as adding notes or marking a stage as completed.   
Input: Valid complaint ID and progress details (e.g., stage completed, findings).   
Output: Updated InvestigationProgress data, complaint status adjusted, and notification sent to the Citizen if configured.  
  
1.22 Manage Case Status Log Function   
Function ID: FR-22   
Description: Administrators and Police Personnel can view, edit, or delete entries in the CaseStatusLog to track changes in court case statuses.   
Input: Valid court case ID and action (e.g., view, edit, delete).   
Output: Updated CaseStatusLog data, management action logged, and notification sent to relevant personnel if configured.  
  
1.23 Manage Complaint Status Log Function   
Function ID: FR-23   
Description: Administrators and Police Personnel can view, edit, or delete entries in the ComplaintStatusLog to track changes in complaint statuses.   
Input: Valid complaint ID and action (e.g., view, edit, delete).   
Output: Updated ComplaintStatusLog data, management action logged, and notification sent to the Citizen if configured.  
  
1.24 Delete Automated Investigation Record Function   
Function ID: FR-24   
Description: Administrators and Police Personnel can delete an automated investigation record from the system.   
Input: Valid complaint ID and confirmation from the user.   
Output: Deleted AutomatedInvestigation record, complaint status updated, and notification sent to the Citizen and relevant Police Personnel.  
  
1.25 Manage Search Records Function   
Function ID: FR-25   
Description: Administrators and Police Personnel can manage search records by viewing, editing, or deleting them.   
Input: Valid search ID and action (e.g., view, edit, delete).   
Output: Updated or deleted search record, management action logged, and search history updated accordingly.  
  
1.26 Manage Citizen Records Function   
Function ID: FR-26   
Description: Administrators and Police Personnel can manage Citizen records by viewing, editing, or deleting them.   
Input: Valid citizen ID and action (e.g., view, edit, delete).   
Output: Updated or deleted Citizen record, management action logged, and notification sent to the Citizen if configured.  
  
1.27 Manage Police Personnel Records Function   
Function ID: FR-27   
Description: Administrators can manage Police Personnel records by viewing, editing, or deleting them.   
Input: Valid Police Personnel ID and action (e.g., view, edit, delete).   
Output: Updated or deleted Police Personnel record, management action logged, and notification sent to the Police Personnel if configured.  
  
1.28 Manage Administrator Records Function   
Function ID: FR-28   
Description: Administrators can manage other Administrator records by viewing, editing, or deleting them.   
Input: Valid Administrator ID and action (e.g., view, edit, delete).   
Output: Updated or deleted Administrator record, management action logged, and notification sent to the affected Administrator if configured.