GRADUATE DIPLOMA IN SOFTWARE ENGINEERING

Criminal Records Management System

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Abstract

It is an era of computerization and data security. To combat with increasing rate of crimes and criminals this system is introduced. This a RMI based application that provides the

managing the data and various information about the criminals and their crimes. Not only this but also provides the information and current status about the Criminals. It stores the GD, FIR, no of cases, the current status and each and every details of the criminal and their family members as well as the suspects related to crimes of any particular area. This system also provides a search facility to know about if there any criminal record about any people. The future scope of the project is to adding fingerprint recognition, face detection technologies.

Overview

The modern days crimes are increasing day by day. To combat crimes and provide safety to citizens, The Criminal Investigation Department(CID), The Police Department plays a vital role It always is a vital responsibility arresting any criminal who is a threat for the safety of society. After registering the FIR from any citizen,police start investigating them. After getting all the proofs against the criminals, it is the duty of the police to present all proofs honestly to the court so that right man can get right punishment. Along with the low salary scale, facilities of modern technology such as computerized system of keeping records are not provided to police department which causes low efficiency. As it is the age of computers and all the organizations today use computers to maintain their records, so this facility should be given to police department, State Intelligence Service, Army Navy Air force Intelligence , Courts as well as Sri Lankan government. The main concerning people in the whole process are Petitioner(The person who files the FIR), Victims, Accused/Criminal, Investigation Officer.

Problem Statement

The use of manual process using paper files in the documentation of criminal information by the CID, Sri Lankan Police Department has had a negative impact on the Sri Lankan Population such as : a drawback in policing, increased level of insecurity in the economy .The following are some of the problems of the manual system the Police department face today.

- Maintaining the criminal records are very difficult.
- Delayed access to Criminal Information.

- Unavailability of Information from former years resulting from loss of criminal data.

- Stolen or misplaced Criminal Case files.

- Damaged case files due to pest, water or outbreak.

- Tracking suspect is difficult.

- Informations abouts criminals and suspects are not properly maintained.

- Communications problems within external departments.

- No backup data of the criminal.

- Take a long time to get a records. Fast report generation not possible.

- Problems with evidence and information gathering.

Required Analysis Process

First basic process of the **"CRMS"** were identifies. Then those processes were analyzed one by one in order to identify the users and their basic functions and their requirements .Then the process which can be automated were separated from others. Then deep analyzing is placed to those processes which can be automated by considering that the users do? How they Do?

Functional Requirement

- ❖ Criminal Management
    - ➢ Criminal can be able add, update.
    - ➢ Search criminals
    - ➢ Get Crime Reports
    - ➢ Get Status updates
    - ➢ Identify Crime patterns
- ❖ User or Admin Management
    - ➢ Add, update, remove Officers.
    - ➢ Report generation.
- ❖ View
    - ➢ Criminal Details.
    - ➢ Crimes Related to criminal.
    - ➢ Criminal Family Members.
    - ➢ Criminals court trials.
    - ➢ Most wanted Criminals.
- ❖ Backup of the System

Non-Functional Requirement

- ❖ Intuitive User Interface
- ❖ Remote Content Management
- ❖ Easy viewing access and advanced search

Software and Hardware Requirement

- ❖ Server Side
  - ➢ Recommended CPU: Server Machine 3.00 GHZ single core processor/2.00 GHZ dual core processor
  - ➢ Recommended 2GB of RAM.
  - ➢ Recommended 10GB of Disk Space.
  - ➢ Recommended Server OS :- CentOS 7.5
  - ➢ Network Card
  - ➢ Internet Connection
  - ➢ MySQL Server 5.7
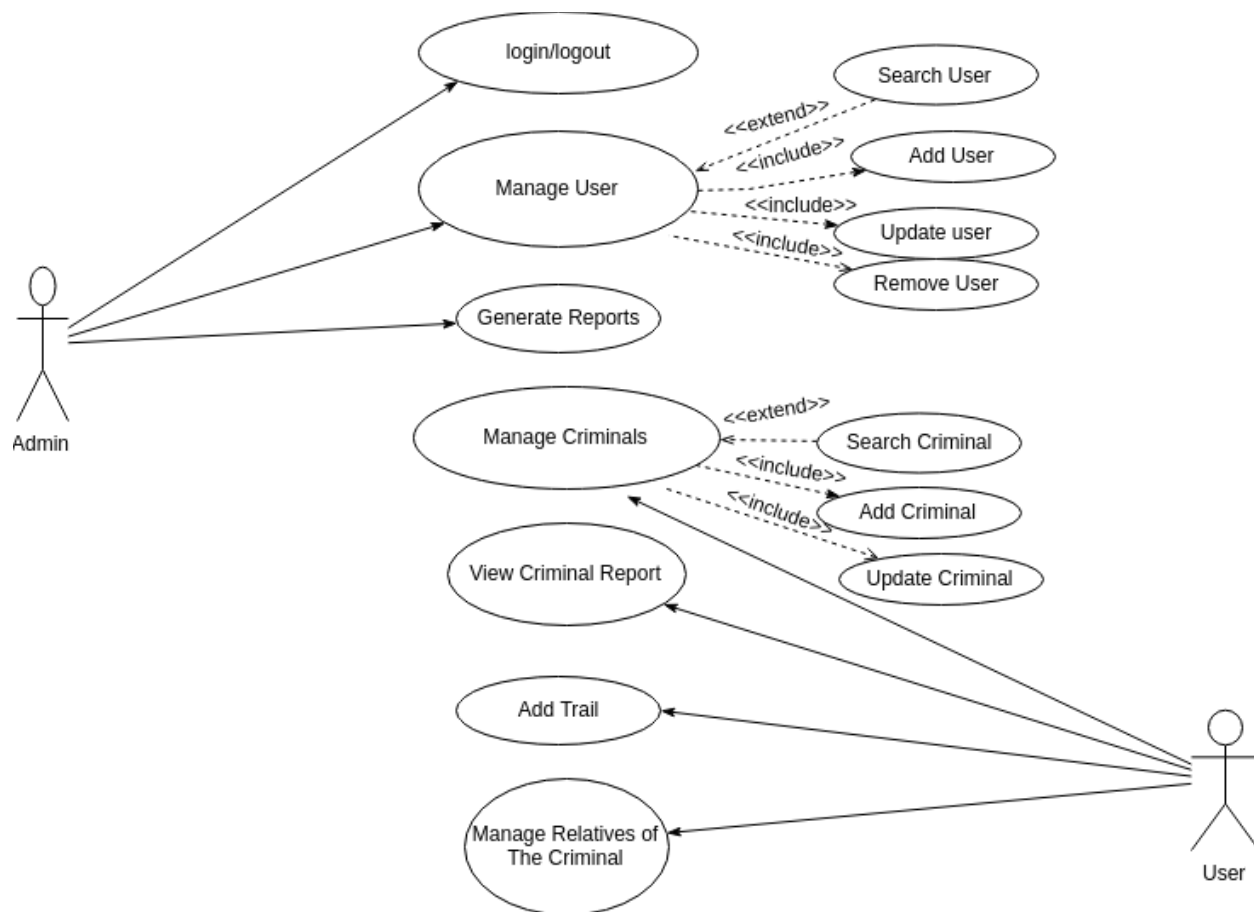 - ➢ Oracle JRE 8(Java Runtime Environment)

- ❖ Client Side
  - ➢ CPU: 3.00 GHZ single core processor/2.00 GHZ dual core processor
  - ➢ Recommended 2GB of RAM.
  - ➢ Recommended 60GB of Disk Space.
  - ➢ Recommended OS :- Ubuntu 18.04 or Windows 10
  - ➢ Network Card
  - ➢ Internet Connection
  - ➢ MySQL Client 5.7
  - ➢ Oracle JDK 8

Technologies Using

- Oracle JDK 8
- Java FX
- Java RMI
- MySQL 5.7
- Hibernate
- Intellij IDEA
- Jaspersoft Studio

Use Case Diagram

Entity Relationship Diagram