**XAVIER UNIVERSITY – ATENEO DE CAGAYAN**

**COLLEGE OF COMPUTER STUDIES**

**DEPARTMENT OF COMPUTER SCIENCE**

**Police Records Database Record Management System**

**In partial fulfillment of the requirements for the course**

**CC14 – Object Oriented Programming**

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**Introduction**

A criminal record, police record, and conversationally rap sheet is a record of an individual's criminal history. The data incorporated into a criminal record and the existence of a criminal record varies among nations and even between jurisdictions within a nation. As a rule, it records all non-erased criminal offenses and may likewise incorporate traffic offenses, for example, speeding and drunk driving. In certain nations the record is constrained to actual convictions (where the individual has pleaded guilty or been found guilty by a qualified court, resulting in the entry of a conviction), while in others it additionally incorporates arrests, dismissed charges, pending charges and charges of which the individual has been cleared off.

Criminal records can be deemed necessary and very import because it is a form of an Individual’s criminal history, which might be utilized by potential businesses, banks, and others to survey an individual's dependability. Criminal records may likewise be pertinent for worldwide travel, and for the charging and condemning of people who perpetrate extra criminal offenses.

Since this Project mainly focuses on the Philippines’s Crime Records, we put into consideration the unfortunate fact that numerous crimes happen in the country in a very fast pace. Added with the fact that crime almost happens here more so than any other country in the planet. Thus, a system that focuses on adding data as fast as the data is being produced is much needed.

Thus, This Project aims to recreate a system in which Information concerning Criminal Records can easily be Added, Manipulated and Changed by a qualified user in a way that does not obstruct its speed. Since information is forever changing in a very quick pace, A faster system would prove to be a much more dependable and plausible choice when it comes to data management.

Police Criminal Records Database System Main Objective is to design and create a program that can easily add and edit data into the database without steps and instructions that may drag and obstruct the speed is meant for.

**Requirement Analysis**

**Functions and Non-functions**

**Functions**

* Logging in and Logging out.
* Filing Criminal Information, Criminal History, First Incident Report, and Court Information.
* Search Records
* Show Records/Information.
* External Interfaces
  + Sends a “Missing Input” error.
  + When “Save” is not clicked, Sends  “Save on Exit” command.
  + When “Search” is left blank and clicked, Sends an “Empty Input” error.
  + When “Delete” is clicked, Sends a “Are you sure?” warning.
  + When click logout, Sends a message “Are you Sure?” warning.

**Non-functions**

* Maintainability/Capacity
  + Checking data storage or capacity
* Security
  + Only Police Official can access important data
* Environmental
  + Using of GUI for Online Blotter tool
* Usability
  + Use for filling blotter data, storing criminal cases and search.
  + View Records and search.
* Interoperability
  + In manual filling is costly and also can take more time, this program shorten work and more efficient to use.
* Availability
  + Functions are limited for corresponding user. Only the Police Official can access all functions. Civilian and Government has limited functions of the program.

**USE-CASES:**

**Actors:**

Police Officials:

* The main users of The System.

**Scenarios:**

**Logging In:**

Success Scenario:

* *User successfully logs in to the system and is able to access all the functions of the system*

Pre-condition:

* Enter correct user ID and password to its designated text fields.

Post-condition:

* Display Menu Buttons and Panel Buttons, Add Panel, and various Textfields

Extensions:

* When the imputed User ID does not match any accounts or when the password does not match with the imputed User ID. Display “Wrong User ID/Password”

**Search and Records:**

Success Scenario:

* *Program successfully scans all records thoroughly in a sufficient and fast manner and adds all searched Items into the JComboBox.*

Pre-condition:

* Enter Search Item in the designated Search TextField.
* Click the Search Button.

Post-condition:

* All results are added into its designated JComboBox
* Click the ComboBox to view other Results.
* Click a Result to view its contents.

Extensions:

* When what is being searched does not match any documents. Display “Your search did not match any of our records”

**Display Records:**

Success Scenario:

* *All Record Data are stored in its designated TextFields for viewing.*

Pre-condition:

* User the Search Function shown above.

Post-condition:

* Select a Record from the JComboBox, by clicking it.
* All data are loaded and taken from the Database through the MySQLConnection Class
* All data are decrypted.
* On selection, The designated textfields are automatically filled with its designated information for viewing.

Extensions:

* When the Chosen Record is empty. Display “Record is empty please Edit or Delete”.
* When User Access Level does not meet the function requirement. Display “Access Denied. Access Level is below the minimum requirement.

**Add a Record:**

Success Scenario:

* *User is now able to add a Record into the database.*

Pre-condition:

* Click the Add Record Button.
* Inputer information in its designated TextFields (unoredered)
  + - Family name
    - First name
    - Middle name
    - Nickname
    - Gender
    - Civil status
    - Birthdate
    - City
    - Province
    - Home address
    - Work address
    - Email address
    - Telephone number
    - Mobile number
  + Click Next
  + Add Criminal History Offence by clicking a Crime Item at the Jlist
  + Input Criminal History information in its designated TextFields and TextPanes (unordered)
    - Offense Description
    - Offense Location
    - Offense Date
    - Sentence
* Click the Next Button
* Input FIR information in its designated TextFields and TextPanes (unordered)
  + FIR Type
  + FIR Description
  + FIR Reported
* Click The Next Button
* Input Court Information in its designated TextFields and TextPanes (unordered)
  + Court Name
  + Court Type
  + Court Description
  + Court Location
* Click Add.

Post-condition:

* All TextFields are stored to its Specific Class through Setters
* All Data are Encrypted from its Specific Class through Getters
* All Encrypted Data are Sent to the MySQLConnection Class
* The MySQLConnection Class adds the passed data into its specific tables and columns into the database.

Extensions:

* When a text field is left empty. Display “TextField Name is Empty”.
* When User Access Level does not meet the function requirement. Display “Access Denied. Access Level is below the minimum requirement.

**Edit a Record:**

Success Scenario:

* *User is now able to edit an existing record from the database.*

Pre-condition:

* User Clicks the Edit/View Record Button
* User Uses the Search Function shown above
* User Uses the Display Function above
* Click on a TextField to edit its contents.
  + - Ex. Family Name
  + Enter replacement information
  + Click next to view Other Information
  + Click the Jcombobox to select a specific crime
  + Click on a textField/textPane to for editing
  + Enter replacement Information
  + Click Update

Post-condition:

* + Program places all textfields into its specific class through getters
  + Program Encrypts all data
  + Program Sends the data into the MySQLConnection
  + MySQLConnection connects to the database and stores all data into its designated table and class

Extensions:

* When a text field is left empty. Display “TextField Name is Empty”.
* When User Access Level does not meet the function requirement. Display “Access Denied. Access Level is below the minimum requirement.

Inclusions:

* Confirmation window: pops up to prevent accidental modification

A picture containing text, receipt

Description automatically generatedClass Diagram

**Sequence Diagram**

A close up of a map

Description automatically generatedConnecting

Connecting and Login

A close up of a map

Description automatically generated

Adding

A close up of a map

Description automatically generated

Editing

A close up of a map

Description automatically generated

**Appendix**

Summary

I am a Computer Science student at Xavier University and a presenter of the Project “Police Criminal Records Database System”

Project Work Highlights

|  |  |
| --- | --- |
| * Project development * GUI development * Creative Design * Code Development * Researcher |  |

Course

Bachelor of Science: **Computer Science**

**Xavier University**, Cagayan de Oro

Programs Used

Programming Languages Used: **Java and MySQL**.

Others: **Adobe Photoshop**

**Draw.io**

**Google drive**

**Google docs**

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Languages

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Tagalog – B1

German – A1

**Rogelio Jr Ibacarra**

A group of people looking at a computer

Description automatically generated**GROUP PICTURES**

**A group of people sitting at a table

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