First Information Report (FIR) Management System

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Database Management (CS315) Project Report
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Abstract

We have created a relational database based on the **Police FIR Management System**. The project includes a simple LAMP (**L**inux operating system, the **A**pache HTTP Server, the **M**ySQL relational database management system, and the **P**HP programming language) based Web application which includes FIR related operations.

1 Introduction

The objective was to make a working database for the FIR management system in the Police System in India, and to implement an interface (web application) using the LAMP server for that database.

The web application has a login page for Users, Admin and Police Officers. An FIR contains details of State, District and Police Station. It also contains date of incident, Incident desription, Description of any lost property and possible Suspect description.

Users can sign-up with their details, and login using their phone number and password in order to register FIRs, view their registered FIRs, or view updates on their filed FIRs. There is a Police In-charge in each Police Station who is responsible for signing up new Police Officers in his/her Police Station, and assigning the filed FIRs to the respective officers. The Police Officers can view their assigned FIRs, and update its status. The Admin does general queries on the database to view or save data entries.

The programs used for the making of the project are : MySQL, PHP, Apache HTTP server (localhost) and Linux (Ubuntu 18.04). Any SQL queries made can be displayed on the webpage, or saved in JSON format.

2 Tables in the Database

The useful tables in the database are :

1. **People** - This table includes details (Name, Father's Name, Aadhaar ID, Occupation, Gender, DOB, Image,etc.) of all the citizens, which includes Users, Police Officers and Admin.
2. **Users** - This contains the ID and password hash for all the users.
3. **FIR** - This table contains the desciption of a FIR, which includes the Police Station where it was filed, Date of incident and FIR description.
4. **Updates, Property, Suspect** - These are tables dependent on the FIR table which have information like Updates on the status of the FIR, List of Lost Property reported and List of possible suspects.
5. **Police_Station** - This table has the list of all the Police Stations, with the Name of the Station, City, District and State in which it exists.
6. **Police_Officer** - This table contains the Aadhaar ID, Police ID, and Police Station details of all Police Officers. It is a dependent table referenced by the People table and the Police_Station table.
7. **General_Diary** - This has the records of all the FIRs assigned to each Police Officer. It is a dependent table referenced by the FIR table and the Police_Officer table.
8. **Incharge** - This contains the Police Incharge in each Police Station, who is responsible for signing up new Police Officers in his Police Station, and assigning FIRs of his Police Station to Officers of his Station. It is a dependent table referenced by the Police_Officer table and the Police_Station table.
9. **Victims** - This contains the list of People who have registered a FIR. It is a dependent table referenced by the FIR table and the People table.
10. **Registration** - This contains the Phone number linking with Aadhaar ID for login purposes. It is a dependent table referenced by the People table and the User table.

3 ER Diagram

Key :

- **Double Lines** : Full participation
- **Arrow** : One side of a many-one relationship
- **Double Rectangle** : Weak Entity Set
- **Double Diamond** : Identifying Relationship of Weak Entity Set
- **Underlined Attribute** : Primary Key

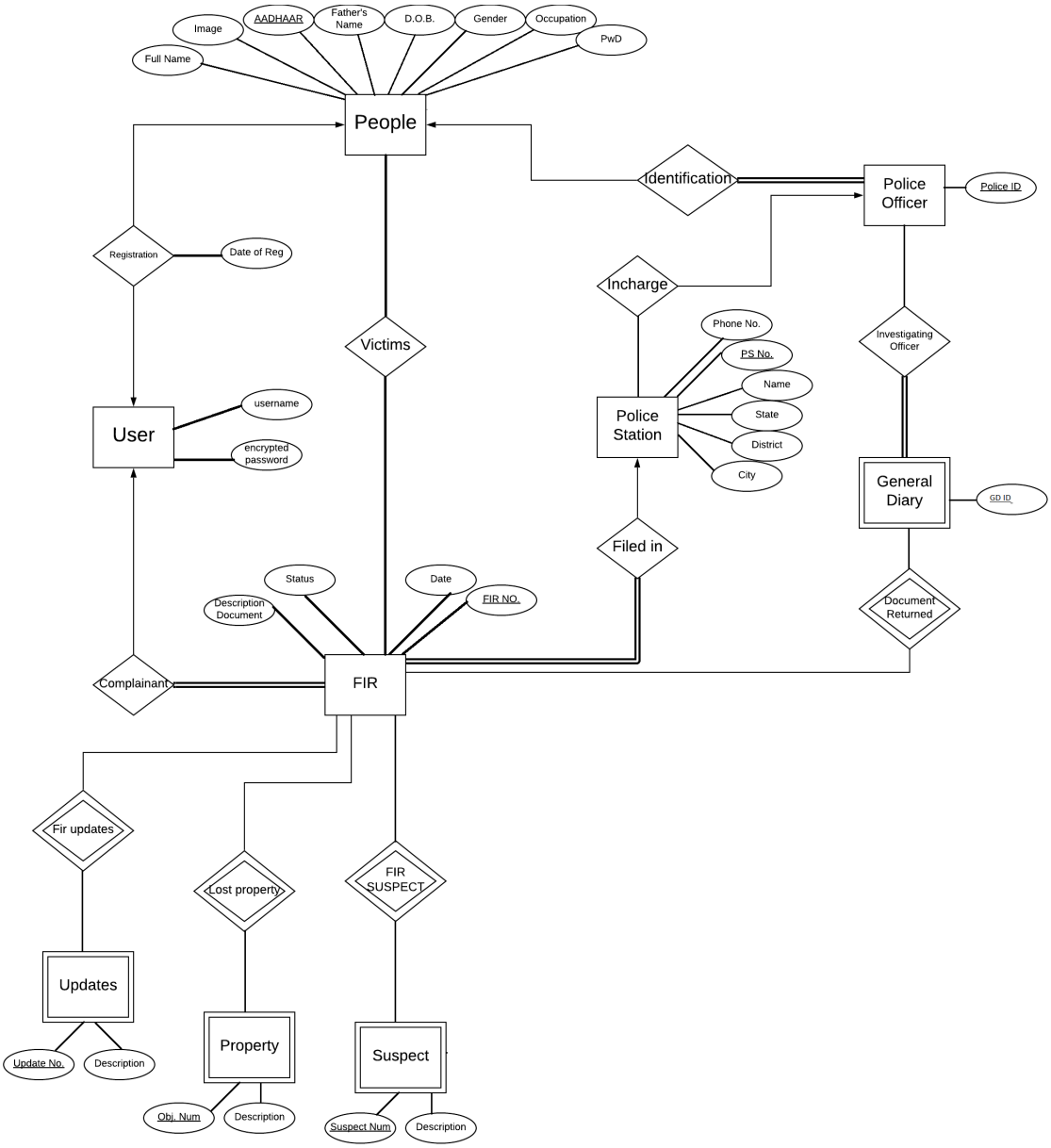

Figure 1: ER Diagram

4 Further Development Possibilities

The database could be made more extensive by including Criminals, Accusations, Fingerprints and Matching Fingerprints. It could also include Court cases, Courts and Judges.

5 Conclusion

Our web application provides any easy way for users to register their FIRs and Police Officer to get notified of their assigned FIRs. It also keeps records of all the entries in the Database on which we could perform any queries and use the data for further use.

6 Acknowledgments

We thank our Instructor Dr. Arnab Bhattacharya for giving us this opportunity to make the Project and providing his counsel for the Project. We would also like to thank the Teaching Assistants who helped us in various ways.

7 Work Distribution

The complete work has been done by the five team members of our group. It is an original work and has been done by us for this course only. All team members have contributed fairly equally, the major parts being listed below:

- Police Officer Interface - Nidanshu Arora and Prateek Gothwal
- Admin Inteface - Siddharth Chinmay
- User Interface - Suraj Verma and Vaibhav Mittal

[NOTE: We helped each other vastly and could not have done this project with any member missing.]