**SVKM’s NMIMS**

**Mukesh Patel School of Technology Management & Engineering (Mumbai Campus)**

**Computer Engineering Department (B Tech CSE/CSBS Sem IV/BTI Sem VIII/MBA. Tech-IV)**

**Database Management System**

**Project Report**

|  |  |  |
| --- | --- | --- |
| Program | BTech Artificial Intelligence and Data Science | |
| Semester | Semester IV | |
| Name of the Project: |  | |
|  | | |
| Details of Project Members |  |  |
| Batch | Roll No. | Name |
| Batch II | A159 | Rateshwari Shakthivel |
| Batch II | A147 | Shruti Rani |
| Batch II | A168 | Samradnyi Kale |
| Date of Submission: 01/04/2025 | | |

**Contribution of each project Members:**

|  |  |  |
| --- | --- | --- |
| Roll No. | Name: | Contribution |
|  |  |  |
|  |  |  |

**Github link of your project: https://github.com/rateshwari/missing\_persons\_project**

**Note:**

1. Create a readme file if you have multiple files
2. All files must be properly named (Example:R004\_DBMSProject)
3. Submit all relevant files of your work ( Report, all SQL files, Any other files)
4. **Plagiarism is highly discouraged (Your report will be checked for plagiarism)**

**Rubrics for the Project evaluation:**

|  |  |
| --- | --- |
| First phase of evaluation:  Innovative Ideas (5 Marks)  Design and Partial implementation (5 Marks) | 10 marks |
| Final phase of evaluation  Implementation, presentation and viva, Self-Learning and Learning Beyond classroom | 10 marks |

**Project Report**

**Selected Topic**

**by**

**Rateshwari Shakthivel, Roll number: A159**

**Shruti Rani, Roll number: A147**

**Samradnyi Kale, Roll number: A168**

**Course: DBMS**

**AY: 2024-25**

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**I. Storyline**

The **Missing Persons Report Management System** is developed to help authorities and individuals manage missing persons reports in an organized way. Users can submit missing person reports, view the details of ongoing cases, and edit or update the status of the reports. The system also enables searching for reports based on various criteria like name, age, gender, and location.

**Key Features**:

* **Submit Report**: Users can create new missing persons reports with essential details like name, age, gender, contact info, and last seen location.
* **View Reports**: Authorities can view reports and get a list of missing persons based on search criteria.
* **Edit Reports**: Allows the editing of existing reports, including updating details like contact information, last seen location, etc.
* **File Upload**: Users can upload a photo along with the report.
* **Advanced Search**: Advanced search functionality allows filtering based on various parameters like age, gender, or location.

**II. Components of Database Design**

Describe all entities along with their attributes here. Also, mention the primary keys for each entity.

Describe all relationships among various entities. Also, specify the cardinality and participation for all relationships.

**III. Entity Relationship Diagram**

Draw the ER diagram here. An example is shown:

You can also use software for drawing ER diagram

**IV. Relational Model**

Convert the ER diagram to the relational model using the concepts learned in the class.

List the various tables obtained.

**V. Normalization**

Perform normalization (1NF, 2NF, 3NF, BCNF) as applicable for the entire database.

**VI. SQL Queries**

Using a DBMS software (SQLite3 or MySQL or any other of your choice):

* Create the tables
* Populate the tables (insert some meaningful data, at least 10 tuples for each relation)
* Run SQL queries (minimum 20) covering **all concepts** learned in the class

This section should contain the question, SQL code, and the output snapshot for each query.

**VI. Project demonstration**

**Tools/Software/Libraries Used**:

* **Flask** (for backend)
* **SQLite** or **MySQL** (for database)
* **HTML/CSS** (for frontend)
* **JavaScript** (for dynamic features)

**Screenshot and Description of the Demonstration**: Include screenshots of the UI for submitting and viewing reports, uploading photos, and performing advanced searches.

* Screenshot and Description of the Demonstration of project ( If GUI is made)

**VII. Self -Learning beyond classroom**

:

 How to handle database relationships in a real-world application.

 The intricacies of SQL queries for filtering and searching data.

 Building a user-friendly interface for a reporting system.

**VIII. Learning from the Project**

* Understanding how to design and manage a real-world database system.
* Implementing CRUD operations using Flask and SQL.
* Developing skills in web development and database management.

**IX. Challenges Faced**

* Designing the database to handle various relationships effectively.
* Ensuring proper file upload and retrieval.
* Handling multiple reports for a single missing person and ensuring data consistency.

**X. Conclusion**

* The importance of database normalization to maintain data integrity.
* How to design a system that can efficiently manage real-world reporting scenarios.
* The necessity of creating an intuitive and accessible UI for users with varying levels of technical knowledge.