DMV Management System

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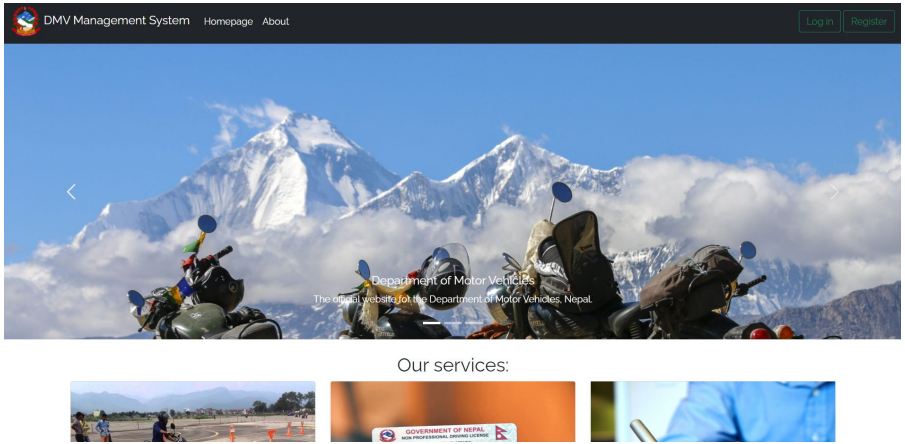


1. Abstract

- Efficient storage, maintenance, and management of the vast amount of data stored within government departments are of utmost importance.
- However, as of yet, no proper software for the DMV has been made, at least in my country. Therefore, in this project, I aim to design a DMV management system that mitigates the problems that I and thousands of other applicants in the DMV have faced.

2. Introduction

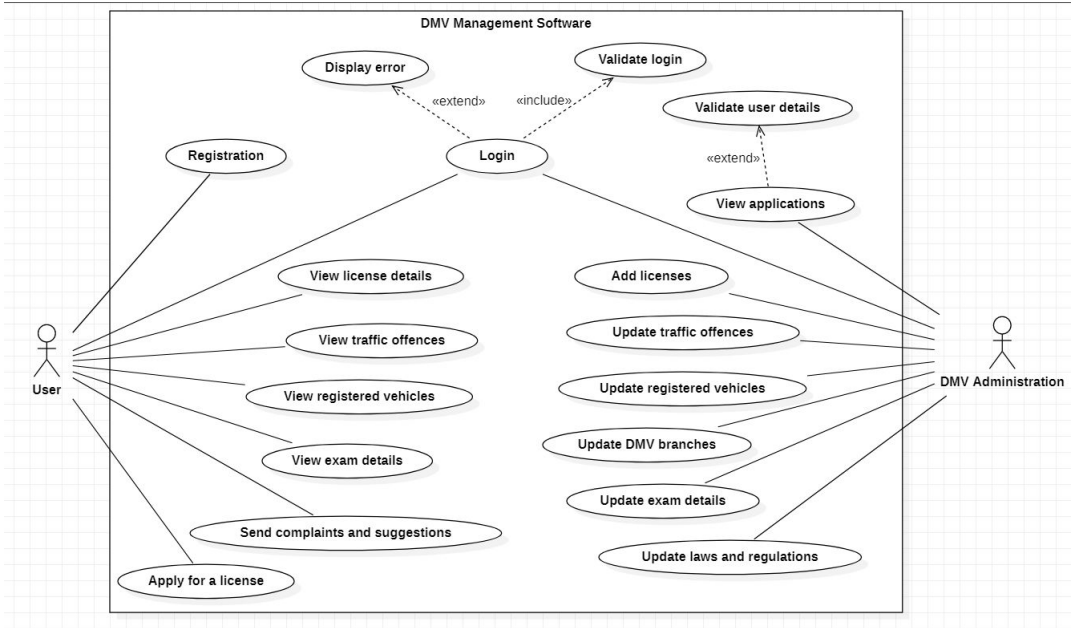
The functionalities that I would implement are:

1. **Register**
2. **Login and Logout**
3. **Apply for a license**
4. **View previous license(s)**
5. **Locate DMV branches**
6. **View upcoming license examinations**
7. **View registered vehicles**
8. **View exam results**
9. **Read through laws and amendments**
10. **Check track record and previous traffic offences**
11. **Contact authorities**

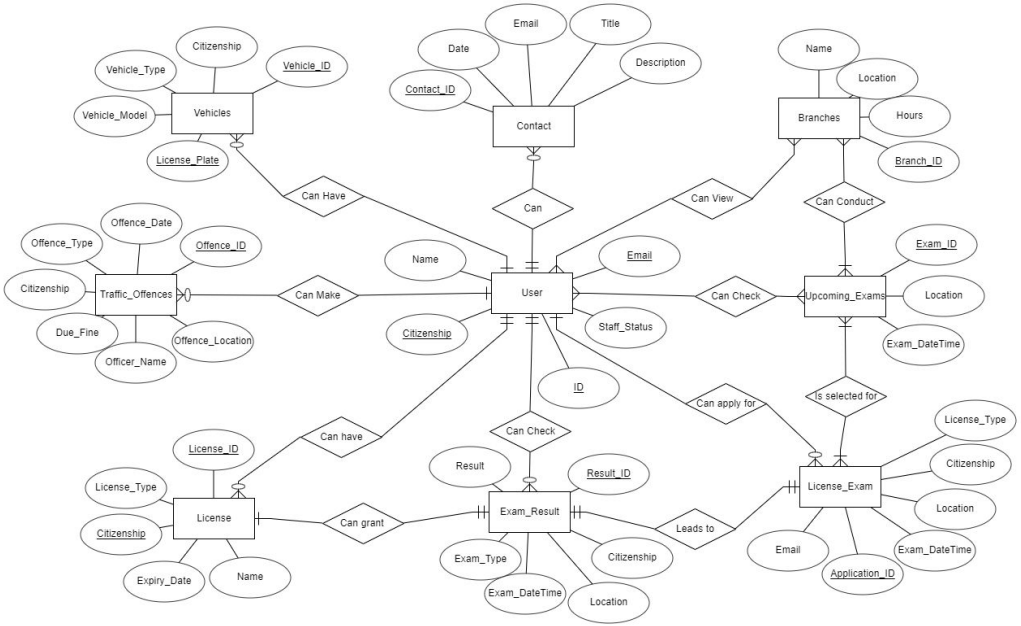
3. Rationale

- The storage, transference and maintenance of data in the DMV is done using papers, which is a highly primitive and unreliable method.
- My family and I faced a lot of problems over the span of a few weeks in 2018 when I got my driver's license. Owing to unclear communication and bad infrastructure, we had to report to the DMV in person and devote entire days to some small tasks. The current system is inefficient and disregards the time of citizens. Hundreds of people across the nation face these problems daily. I plan to change that.
- Hence, in this project, I aim to solve this problem by building a DMV software that would help users do various tasks related to the DMV from the comfort of their own homes.

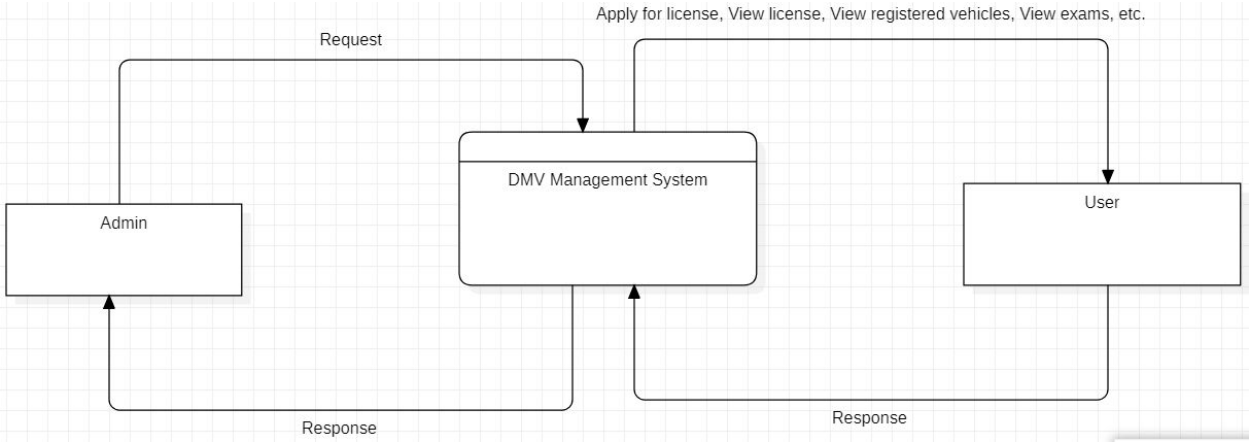
4. Use Case Diagram



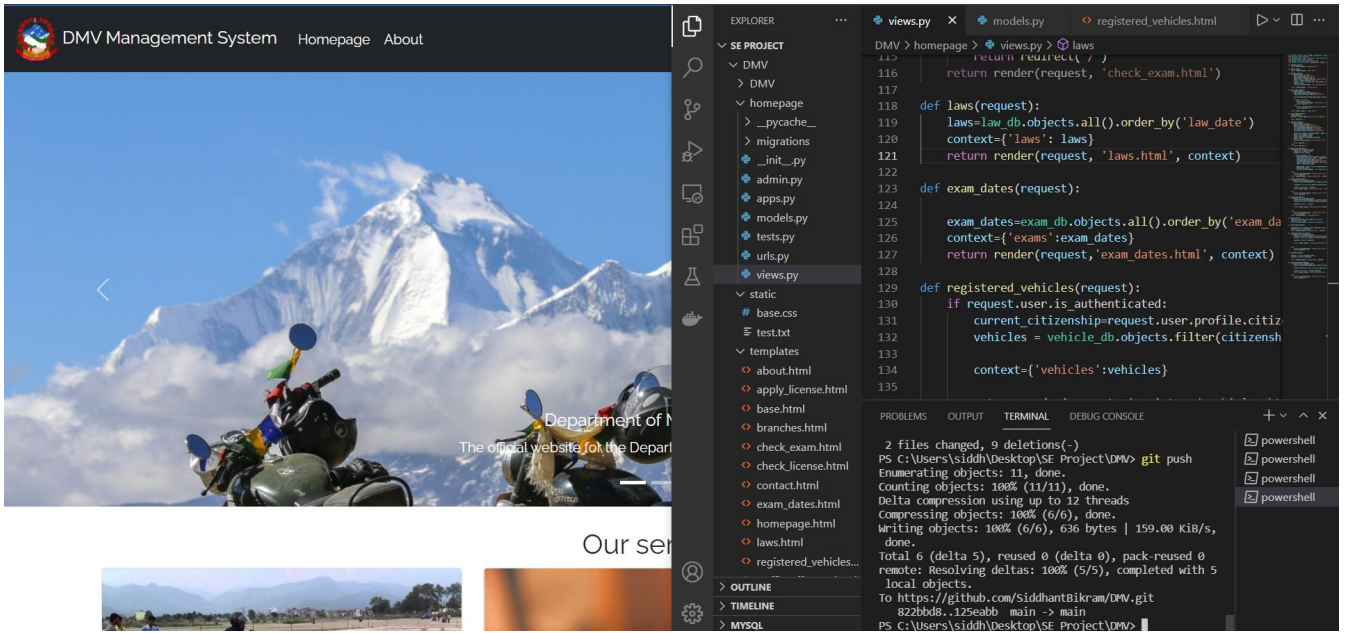
5. Entity Relationship Diagram



6. Data Flow Diagram



7. Implementation



8. Result

- The results that I got from just a few months of development were very promising. Adding on to that, I worked on this whole project myself. The application is pretty basic in this stage, but easily scalable and shows a lot of potential. Many features have not been implemented yet, but they have all been polished. I hope that these kinds of applications and proposals are seen more frequently in developing countries in India and Nepal for their modernization.
- The source code for the project has been uploaded to Github here: https://github.com/SiddhantBikram/DMV

9. Conclusion

- Through this project, I learned a lot about web development and building simple, lightweight, and scalable applications for a large target audience. It reignited my passion for web development and inspired me to explore more frameworks and libraries in the future to make my applications even better.
- Even more importantly, it helped me learn how to apply software engineering to a real-life problem and try to solve it. If ideas like this are developed on a large scale, it could lead to great developments in my country.

10. References

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