(NOTE: This document is a group work from me( Ashmita Kunwar, 0321) and Saroj Shrestha )

**Application for women to find violence type, respective legal procedure and recommendation of lawyer and organization**

Recently we (I along with my friends) proposed an application that was meant for the women which is themed in “Women Violence”, where respective women who are in need of help for the legal procedure of the violence type they belongs to will be recommended. Recommending something by analyzing their data is a part of AI. This is how we thought of implementing AI on it. Through this app we can covey them in which violence category do they belong and its legal procedure in return. Along with they can search lawyer and organization according to their need.

At first she would fill in the form, and those data are stored in the database. After that we would perform analysis and compare those keywords(given by the user) with our existing data. We will have different files for different types of violence, the one which contain those user entered data would be redirected to her as her violence type and legal procedure to be followed.

Below in this document I will like to share some intelligent features that I think would add flexibility and reliability in our application. Here it goes:

**The foundations of AI systems: why is search required to solve the problem;**

Search is one of the important feature of this application, search is used for two different categories.

1st category for search implementation is to find the Lawyer

2nd category for search implementation is to find the organization

If the victim is in need of lawyer, she is suggested for particular lawyer on the basis of her violence type she belongs too. She can search lawyer with his name if she knows him/her prior. In case if she does not know whom to contact, our application will recommend specific lawyer who had solved many cases already that were related to her violence type.

Next is, we do have another category for the search option .i.e if she needs to take help of any organization, she can search it as per her wish or else we can recommend her with desired organization by performing certain analysis on her data.

**The problem and its environment - what features do they have;**

We girls are facing lots of violence in many forms which is affecting our life mentally, physically and socially. In many situation in many different places we are being humiliated or we are being treated in such a way that is against of our right. And the main problem behind this is that, we have no idea how to deal with and what are its legal procedure to be carried out. We directly don’t have idea whom to talk with and what to talk about. Another major problem is, we don’t know in which violence group we belong to as there exist different types of violence.

To solve these issue, following features are present in this system.

* At first we ask our user to fill the form and then perform the analysis on that data, and finally our application give her an idea about the type of violence she belongs to and respective legal procedure.
* If she is in need of any organization or lawyer, she can select them as per her wish. But if she wants us to recommend then, on the basis of her violence type she belongs to we suggest with them. She can also directly contact the organization and lawyer via email through our application .

For future release we thought of collecting lots of data and do deeper analysis, use specific algorithm and give more accurate result to solve her problem.

It is a kind of recommendation system and it is a part of AI, where we analyze the data she entered on that basis we recommend everything that is required to her. For this, we first collect data for different types of violence from our side, and store it and we perform document similarity test. i.e we compare the data given by the user with different violence types and the one with highest similarity will be recommended. Recommendation and searching is a part of AI.

**Knowledge that would help guide search - what are the features of the knowledge, and how your system might acquire the knowledge;**

Knowledge or data that are used

* Information about different types of violence,
* Basic keywords that directly belongs to particular violence, for example if we see violence is done my family, we can say that it directly belongs or “Domestic violence, here “Family” is the keyword.
* Lawyer information, types of cases they fought for, number of cases and contact address.
* List and description of organization.

**A production system algorithm that is appropriate for your system, including how your system would choose which states and transformations to apply at each step.**

We have not yet finalized particular algorithm to use but for now we have been performing text similarity between the data given by the user and the existing data for different violence type, which recommend the violence type and legal procedure. We can easily search the organization and lawyer with this application. We are still looking for the best way to make our result more accurate and reliable by implementing different AI techniques.

Additionally, we can use different shortest distance algorithm like Greedy search or A\* search to find the shortest distance to reach the lawyers office and organization.