Legal Helper

NLP-based legal brief generator

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Problem Breakdown

The overall problem of the lack of powerful legal writing sometimes leads to problems in making the stand of the lawyer clear. For addressing this, the following methodology can be used-

 Creating an assistive Technology which analyses the characteristics of powerful legal briefs which have helped the lawyers win the verdicts of the case

 Using the trained technology on the new case documents to generate powerful legal briefs which would make the stance powerful

The Model

The overall functionality can be shown through the following diagram-



Technologies used

The basic technologies used for demonstrating how the look and feel of the app would be are-

- Flutter- For demonstrating how the application would look like which would demonstrate the ease of use of the application
- NLP Used to develop the model for text generation (In this case would be the legal briefs generated from live facts of the case)

NLP for Legal Brief Generator

In order to build a legal brief generator, a large corpus for text data is required which would cater the entire court cases and their verdicts. The data is derived from Multi-lexisum dataset which consists of 9820 legal case summaries along with their verdicts in the final statement.

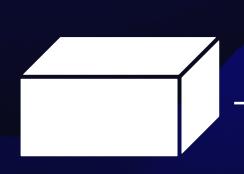
The dataset is of summaries is developed in such a way that the final 2 lines in every case summary is the verdict while the rest of the lines are facts generated by the experts in the case. This information can be used to create a dataset which consists of various facts of different cases and their verdicts

NLP for Legal brief generator

The solution proposed considers all the factors before coming to a conclusion in generating arguments based on the facts of the case-

- 1. Going through the entire document and summarising the text document using text summariser function.
- 2. Developing a trained model using Transformers on briefs or summaries developed which helped the lawyers turn the verdicts to their side
- 3. Feeding the same model with the summarised text document which will help in developing brief on the selection of words.

Text summarisation

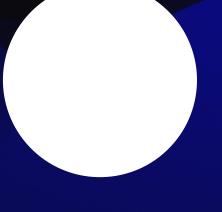


Documents extracted and stored into strings



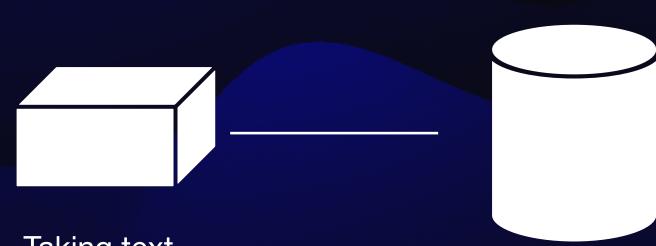
Removing all the stopwords and punctuation marks

Using Latent
Semantic
analysis



Storing the summaries into another dataset

NLP Text generation



Taking text summaries from lexisum dataset

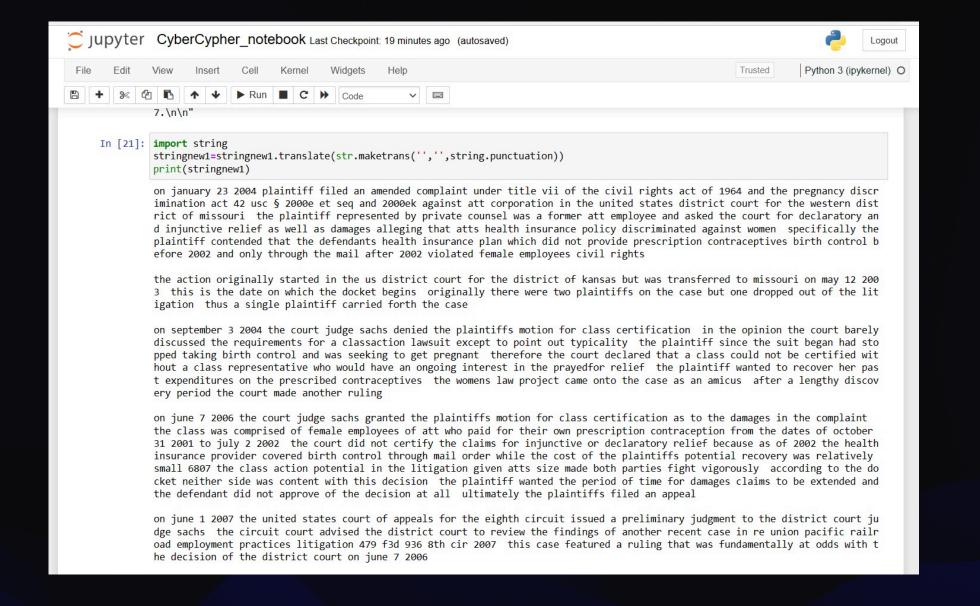
Training the model using Transformers or GANs

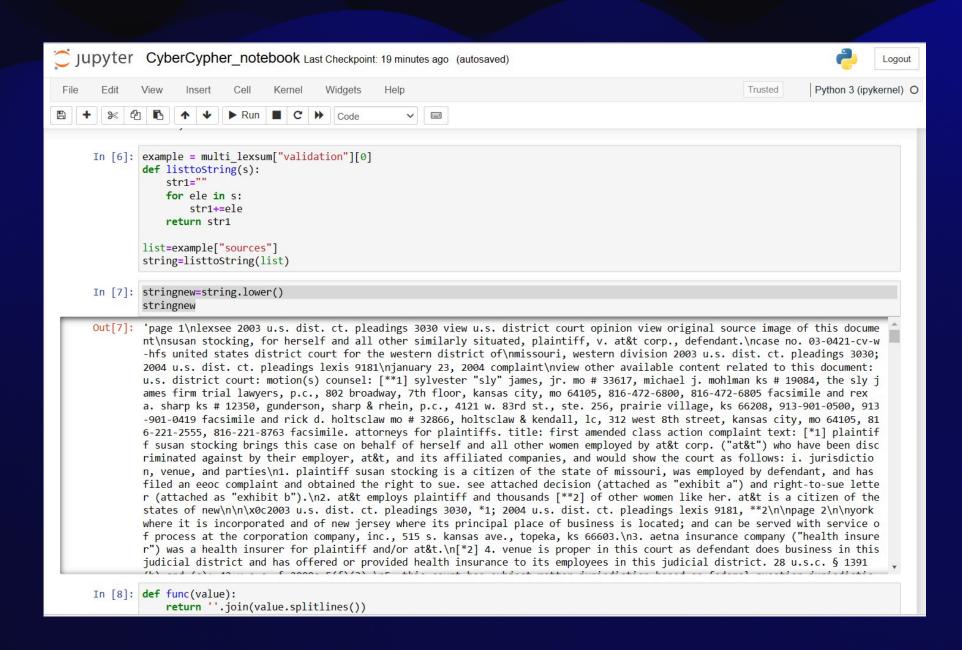


Evaluation of the model by feeding in the summary of new document

NLP in Action

NLP is used to identify and tag the words which are important to create a legal brief





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Conclusion

A thorough analysis was done on how to build an application which can be helpful to the assist the lawyers in developing legal briefs