IS465002

In Class Team Assignment

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PROJECT SUMMARY

**Overview**:

Companies such as Google, Facebook and Apple employ large databases to handle huge amounts of data and they require sophisticated software as a part of its business process. For example, Google uses a complex search engine called Google Search to search for publicly available documents offered in web servers. It then uses complex algorithms to sort and compare these words. Our simple project looks at a basic function in python that finds the similarities between words or sentences, calculates the similarities and displays, as percentage the similarity.

**Intellectual Merit:**

This program allows for a direct word comparison based on letter sequences.The program utilizes difflab for it’s sequence matcher. This program can calculate a percentage based on the similarity of two words or sentences. This program has a lot of potential for educators, programmers, etc. This program could create a path for educators around the world as it can be used as a learning tool and can help young students understand the difference between words based on a percentage. This also can be used by programmers who could use it in conjunction with other functions to create a search engine.

**Broader Impacts:**

The impacts of this technology is far reaching. Some examples of its applications are in the field of cyber security, online monitoring, market and industry research. Similar to keyword programs, our similarity program can take large amounts of data, including online searches and text conversations and find the similarity between certain words in the context that is being used. For example, similar programs have had an impact on law enforcement after the 9/11 attack where certain words like “terrorist” and “bomb” being used would be flagged and tracked. Other uses include market research to find out which searches are the most popular and how they come about to find patterns from a variety of industries. One other major impact that the word similarity program can have is on AI, specifically chat bots. Programs like these can help a chatbot understand the context of a sentence, and reply with the same answer to two questions that are worded differently, but ultimately ask the same question.