Project 2 Write-Up
Content Density

Overview:

Textifai analyzes user-submitted text and generates statistics and insights based on the content of that text. The site will use NLP-based algorithms from IBM Watson and NLTK in order to ascertain features like tone, theme, and mood about corpuses of work. These are categorized into tags, or "insights": for example, "happiness" and if the text is about "boats". There are three major types of insights: feature insights (tones with an associated probability from IBM Watson output), grammatical insights (i.e. most common part of speech, using NLTK), and general insights (overview of all insights). Users can submit their own text and then view these analytics, as well as view the text of other users and comment on said text.

Team Members:

Ozias Gonet Ash Johns Tyler McMaster Brandon Yannoni

Repository:

CS326-important/space-deer

Design Overview:

The data models include User, Text, Insight, GeneralInsight, GrammaticalInsight, and Comment. Insight and GrammaticalInsight are generated based on the Text content and have foreign keys to Text and User. GeneralInsights are generated based on global Insight and GrammaticalInsight data. Comments are associated with Users and Text. The important urls are index, textinput, featureoutput, account, and general-insights. Index has a live feed of the most recently submitted text, where each item links to a featureoutput page. Textinput allows users to submit their own text, and links directly to a featureoutput page upon submission. The featureoutput page consists of Insights, GrammaticalInsights, and comments. Account consists of statistics for a specific user, and the GeneralInsights page consists of general statistics across all users and text based on populated GeneralInsight models.

Problems/Successes:

The biggest hurdle probably has been agreeing upon the capabilities of the application. Different team members had different ideas of what an "insight" is, for example, and what sorts of behaviors it would quantify. However, by meeting up and communicating until we all got it straight, we resolved the problem - thereby making it a success in the end. There was also disagreement about proper version control workflow. Half of the team was following the correct github workflow (using pull requests and branches), while the other half was simply just committing their work. We resolved this problem by agreeing to use the full git workflow as a team for the remainder of the semester. Overall, these have been minor problems, and we have been completing most of our work with little difficulty and communicating very effectively.

Individual Writeups

Ozias Gonet

I created the initial skeleton django project, the featureoutput and textinput templates, the Text, Insight, GrammaticalInsight, and Comment models, as well as all the associated views. This included adding the proper url mappings and the admin registration too. In general, I implemented most of the data models that drives the majority of the output throughout the site. I also made a few minor additions and bug fixes to various parts of the code base, such as the database population script, the base templates, and the general insight calculator. Overall, I contributed about 30% of the project.

Ash Johns

My contributions to project 2 were mainly dealing with the index page and templating. I created the base template, and index page, along with all the relevant CSS. I also created the urls and views required for those. I edited and fixed bugs mainly in the Models, but also other files throughout the application. I contributed to about 25% of the project.

Tyler McMaster

For this project so far, I've been focused on user accounts and their profile page. To that end, I created the model for the user account, as well as the template for their profile page. I've also performed rudimentary tasks to try to lower the team's workload, like creating a script to populate our database automatically and drawing up the data model diagram. I would put my contributions at about 20%, as so far my team-mates have been doing a lot of the heavy lifting with the website and I've just been imitating what they've created.

Brandon Yannoni

Initially, I divided the necessary tasks into their basic parts and provided the time a kanban board so that we would be able to quickly identify who was working on what task and which tasks were available to grab. I also spent a good amount of time providing assistance with git and explaining how it works conceptually in specific situations (working with divergent branches, detached heads, rebasing and fast forwarding, etc.). I created a template for a page, it’s corresponding view, the model it primarily uses, and partially developed several of the algorithms which we will use to populate it based on real data. I additionally contributed bug fixes to my teammates code whenever possible. I would rate my contribution at 25-30%.