App Specification

Dejan Porjazovski

July 24, 2019

The application consists of two main parts:

- **Text Generation**
- **Music Generation**.

1 Text Generation

In the text generation part, the user can choose the knowledge base, in other words the dataset that is going to be used for the text generation. The user can choose between these options:

- OpenAI
- Nietzsche + Friends
- Shakespeare
- Cooking Recipes
- Telephone Book

The next thing that the user can do is to give the Oracle some context text and the Oracle will try to generate text based on that context.

The user can also choose the level of chance and contingency, which tells the Oracle from what kind of distribution to pick the characters. Higher value means that the Oracle will have freedom to pick characters that are less likely to appear in that word, which will make the text more interesting but with more mistakes. This value ranges from 0.5 - 3.

The last thing that the user can choose regarding the text generation is the length of the text. The text can be 250, 500, 750 and 1000 characters long.

After the user has chosen the preferences, the **generate** button will generate the text.

Based on the quality of text, the users can choose whether the text made them feel *happy* or *sad*.

2 Music Generation

In this segment, the user can choose what kind of music the Oracle should generate.

The first thing that the user can choose is the musical scale in which the generated music will be. The user has four options here:

- C Minor
- C Minor Pentatonic
- C Major
- C Major Pentatonic

If the user has chosen *happy* in the previous section, only the **minor** scales will be available since they tend to sound happier.
If the user has chosen *sad* in the previous section, only the **major** scales will be available since they sound more sad.

The next thing that the user can choose is the note density which determines the tempo.
Similarly like with the choice of the scales, if the user has chosen *happy*, there will be a note density option with higher values (5-7), which will make the music faster (more exciting).
If the user has chosen *sad*, the note density options will be from 1-3, which will produce slower music (more sad).

Same like in the text, here also the user can choose the level of chance and contingency along with the length of the music to be generated.

After the user has made the choices, there will be a button **Generate and Play**, which will generate and play the music in a loop. There is also a button **Stop Playing**, which will stop the music from playing.