Problem Statement
Classie-fication was created in order to address the following:
- Time required to read through all student comments for a specific course
- No concrete guidelines for evaluation scores, which means the summary statistics provided by Classie-Evals may be inaccurate or not representatively indicative of a class
- Students want as much information about the classes they intend to take before enrolling in a class, since class sections hit capacity rapidly and switching classes after the enrollment may range from difficult to impossible
- Classie-Evals site is hard to use and the data is spread out among many links - reviews are spread across different sections and professors for every semester that a course has been offered

Solution Description
To solve the issues addressed above, Classie-Evals:
- Scrapes the Classie-Evals database of course reviews for a desired class (Department Code + Class Number)
- Analyzes the ascertained course comments using IBM Watson’s NLP API
- Processes the function return of the IBM Watson NLP API’s
- Generates sentiment graphs based off the processed data, graphically representing how students felt about aspects of the class
- Provides a keyword search which returns all student comments containing the specified keyword
- Allows the user to navigate the software with ease with the implementation of an easy to use GUI
- Displays all course data in one place in a unified fashion

Software Design
In the MVC (Model-View-Controller) design pattern, the:
- User interacts with the “View” (GUI) which displays data
- “Model” is the backend that handles the data and processing
- “Controller” connects the “View” to the “Model” by sending data when events occur

Controller: “GUI_Controller.py”
- Connects the GUI (View) with the backend (Model)
- Updates GUI with appropriate data and figures

View: “main.py” & “login.py”
The GUI (pyQt) contains:
- Textboxes
- Buttons
- Tabs
- Widgets

Model: “browser.py”
- Processes data sent and received from GUI and NLP API
- Generates and plots figures (matplotlib)

IBM Watson NLP API
Classie-Evals System

Results
The software and all its dependencies are bundled into a single directory, with the software compiled as an executable file (*.exe)

Results Continued

Glossary
- NLP - Natural language processing
- API - Application programming interface
- GUI - Graphical user interface
- Classie-Evals - Stony Brook University’s student course review database

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Classie-fication