Stage 4 - User Interface

- **Network Similarity Search UI**

  The Network Similarity Search UI was written in the Python Tkinter library. When the UI starts, it loads the following from the initial dataset: its graph, tweet and hashtag IDs, and scores.

  The UI (started by running: run_UI.py) can be found on: https://github.com/circlefive05/SimRank-on-Twitter-UI

  A 3 minute demo of the user functions and exception handling cases can be found here: https://youtu.be/CHiQ8C7cdtg

  User functions:

  - Input tweet and search for similar tweets or hashtags
  - Input hashtag and search for similar tweets or hashtags (different from the input)
  - Input a set of new hashtags, search for new tweets, and return similar tweets or hashtags. Add the newly searched dataset of scores to set of dataset IDs
  - Show tweet IDs in current dataset
  - Show hashtags in current dataset
  - Show current dataset IDs
  - Switch datasets by inputting ID

  UI displays:

  - Tweet IDs and hashtags in current dataset
  - If user inputs tweet ID, UI displays both the content of that tweet ID and the similar tweets or hashtags
  - Similar hashtags/tweets
  - Set of dataset IDs

  Exception Handling- Returns error message on UI if user performs:

  - If type is integer that is not in current dataset
  - If type in hashtag not in current dataset
  - If, in switching dataset, input is not a valid dataset number
  - If type in hashtag with spaces and don't search 'Gather new tweets'
  - If no similar tweets/hashtags found
  - If similar tweets/hashtags found but no new tweets/hashtags found