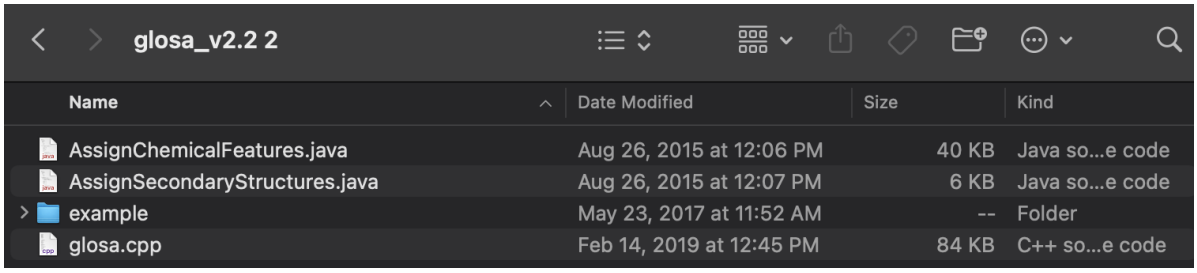
G-LoSA Installation and Set up Instructions

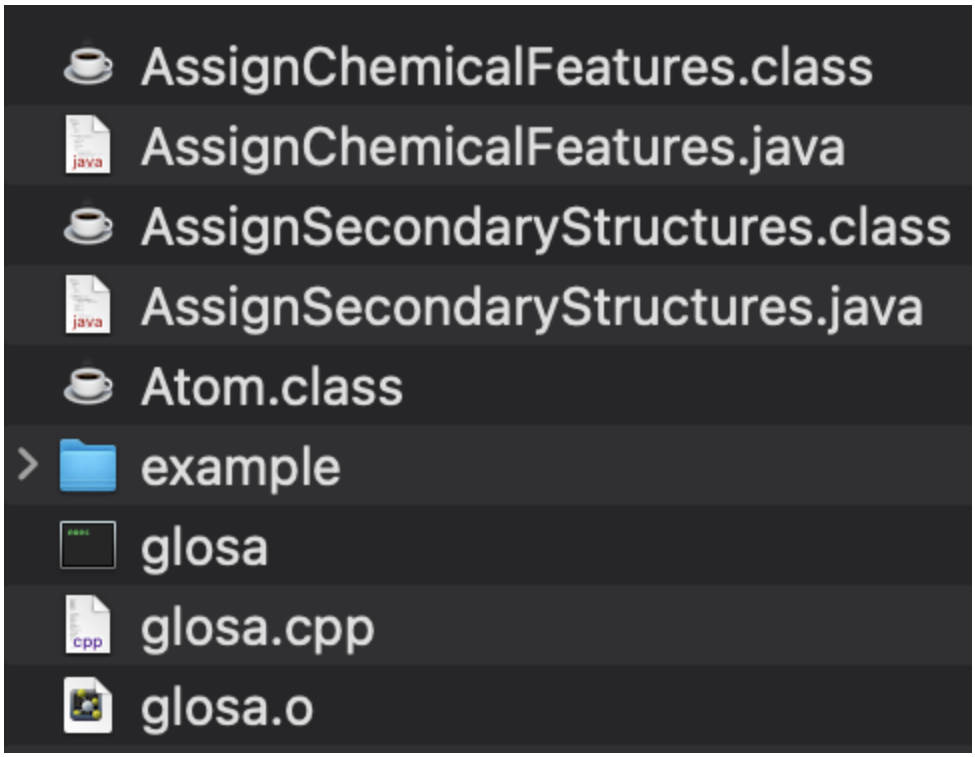
- To run G-LoSA search (searching a target protein against a database), you need to download both the G-LoSA program and the G-LoSA toolkit.
- G-LoSA standalone runs the local structure alignment for 1 pair of proteins. To download G-LoSA, go to https://compbio.lehigh.edu/GLoSA/index.html and follow the installation instructions. You should now have a folder that contains the glosa executable as well as several java files. These files are used in preparing the structure for G-LoSA



contents of the downloaded glosa folder

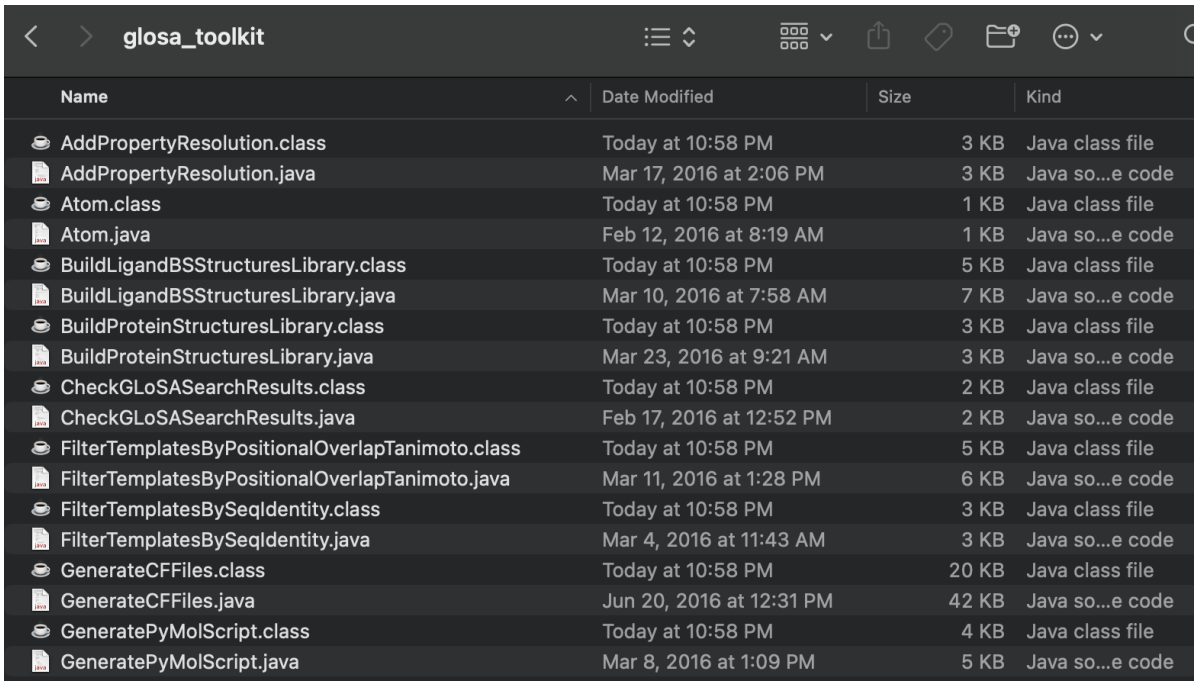
  - After running the compilation instructions, the folder should look like this (Note: you may have to delete the Atom.class file after compiling the first java program or else the second java program will not compile. This is because both java files have the Atom class so the second will only compile if you delete the Atom.class after compiling the first class):
    - Compiling can be done executing these lines in terminal
      - `g++ -c glosa.cpp`
      - `g++ -o glosa glosa.o`
      - `javac AssignChemicalFeatures.java`
      - `rm Atom.class`

- `javac AssignSecondaryStructures.java`



  - G-LoSA is now ready to be run. After installing the compiling the G-LoSA toolkit, move all the files shown above (except examples, which is optional) into the glosa_toolkit folder

- To install G-LoSA toolkit, go to https://compbio.lehigh.edu/GLoSA/toolkit.html and download the folder. The toolkit is composed of several java files used to run various G-LoSA related tasks, primarily G-LoSA search against a library. Run `javac *.java` to compile all the programs in the toolkit. After compilation, the folder should look something like this:



Add the files from the glosa installation in this folder and you have all the programs set up to run G-LoSA search!