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CSSE230 Overview

Our graph project uses the land of Skyrim as its domain, and tracks the locations and connections between all the cities and towns on the map. The graph also stores information about how dangerous and interesting each town is. The user can use the GUI to choose various tasks they want to accomplish with nodes selected from the map. The user can also use a search window to find locations to use. The user can also pan and zoom the map. The user has several tasks they can do; including finding the shortest path between two nodes, find the list of places that meet an interesting threshold, and return all paths between two nodes.

Our search algorithm used A\*. It branches out from the start point and finds all paths for each neighbor. It creates a route of an arraylist of nodes which are added to a priority queue. This is comparable so it is able to sort which ones are the shortest distances.

There were certain features that we tried to implement, but we ran out of time. One of these methods include finding the nearest specific set of vendors from a selected city. The vendor information is stored as an integer array, with 1s representing the presence of a vendor, and the index indicating which vendor. The method would have recursively crawled through neighbor nodes until the wanted vendor combination, stored as an integer array, is found.

Another issue we have was with graphics, and refreshing the window. Once our search algorithm started to work, the buttons no longer properly highlighted when clicked and selected.