VE477 Lab5 Report Wang Yichao 517370910011

For the first three parts, please see the py files.

Prat 4.

Time Complexity:

Dijkstra is $O(|E| + |V| \log |V|)$

Bellman-Ford is O(|V||E|)

Running time:

For large test cases, Dijkstra wins because the better time complexity. For small test cases, Bellman-Ford wins because Fibonacci has large coefficient. In particular, we should only use Bellman-Ford when there is a negative edge.