Name: John Maes

Assignment: 9

Submission and Compilation

• Builds and Compiles Successfully

Complete & Correct: 15/25

• Unit Test Results:

```
[======] Running 14 tests from 2 test cases.
[-----] Global test environment set-up.
[-----] 7 tests from AdjacencyListTest
[ RUN
           ] AdjacencyListTest.BasicMaxIndependentSet
        OK ] AdjacencyListTest.BasicMaxIndependentSet (0 ms)
RUN
           ] AdjacencyListTest.SmallMaxIndependentSet
        OK ] AdjacencyListTest.SmallMaxIndependentSet (0 ms)
[ RUN
           ] AdjacencyListTest.MediumMaxIndependentSet
        OK ] AdjacencyListTest.MediumMaxIndependentSet (0 ms)
        ] AdjacencyListTest.MaxIndependentSetTies
OK ] AdjacencyListTest.MaxIndependentSetTies (0 ms)
[ RUN
[ RUN
            \label{lem:constraint} \ensuremath{\texttt{J}} \ensuremath{\texttt{AdjacencyListTest.BasicAllPairsShortestPaths}}
0 and 0
0 and 1
2147483647
0 and 3
2147483647
2147483647
1 and 1
1 and 2
2147483647
2147483647
2147483647
2147483647
2 and 2
2147483647
2147483647
2147483647
2147483647
2147483647
3 and 3
3 and 4
2147483647
2147483647
4 and 2
2147483647
4 and 4
updated to 2147483647
updated to 2147483647
updated to 2147483647
updated to 2147483647
updated to 0
0 -10 -20 2 -2
inf 0 -10 inf inf
inf inf 0 inf inf
inf inf 1 0 -4
0 -10 -20 2 0
/home/bowers/svn/bowers/teaching/cpsc450-s21/grading/HW-9/hw9-beffypuffs/hw9_tests.cpp:150: Failure
      Expected: 5
To be equal to: weights[4][2]
      Which is: -20
  FAILED ] AdjacencyListTest.BasicAllPairsShortestPaths (0 ms)
[ RUN
            ] AdjacencyListTest.NoPaths
\bar{0} and \bar{0}
2147483647
2147483647
```

```
2147483647
2147483647
2147483647
1 and 1
2147483647
2147483647
2147483647
2147483647
2147483647
2 and 2
2147483647
2147483647
2147483647
2147483647
2147483647
3 and 3
2147483647
2147483647
2147483647
2147483647
2147483647
4 and 4
updated to 2147483647
updated to 2147483647
updated to 2147483647
updated to 2147483647
updated to 0
0 inf inf inf inf
inf 0 inf inf inf
inf inf 0 inf inf
inf inf inf 0 inf
0 inf inf inf 0
/home/bowers/svn/bowers/teaching/cpsc450-s21/grading/HW-9/hw9-beffypuffs/hw9\_tests.cpp:172: Failure for the control of the c
              Expected: std::numeric_limits<int>::max()
             Which is: 2147483647
To be equal to: weights[i][j]
             Which is: 0
[ FAILED ] AdjacencyListTest.NoPaths (1 ms)
[ RUN
                        ] AdjacencyListTest.NegativeCycles
0 and 0
0 and 1
2147483647
2147483647
2147483647
1 and 1
1 and 2
2147483647
2 and 0
2147483647
2 and 2
2147483647
2147483647
2147483647
2147483647
3 and 3
/home/bowers/svn/bowers/teaching/cpsc450-s21/grading/HW-9/hw9-beffypuffs/hw9_tests.cpp:185: Failure
             Expected: false
To be equal to: g.all_pairs_shortest_paths(weights) Which is: true
    FAILED ] AdjacencyListTest.NegativeCycles (0 ms)
[-----] 7 tests from AdjacencyMatrixTest
[ RUN
                        ] \  \, \texttt{AdjacencyMatrixTest.BasicMaxIndependentSet}
                 OK ] AdjacencyMatrixTest.BasicMaxIndependentSet (0 ms)
 - RUN
                            {\tt Adjacency Matrix Test. Small Max Independent Set}
                 {\tt OK~]~AdjacencyMatrixTest.SmallMaxIndependentSet~(0~ms)}\\
[ RUN
                            {\tt Adjacency Matrix Test.} \\ {\tt Medium Max Independent Set}
                 OK ] AdjacencyMatrixTest.MediumMaxIndependentSet (0 ms)
[ RUN
                            AdjacencyMatrixTest.MaxIndependentSetTies
                 OK ] AdjacencyMatrixTest.MaxIndependentSetTies (0 ms)
Γ RUN
                        ] AdjacencyMatrixTest.BasicAllPairsShortestPaths
0 and 0
0 and 1
2147483647
0 and 3
2147483647
2147483647
1 and 1
1 and 2
2147483647
```

```
2147483647
2147483647
2147483647
2 and 2
2147483647
2147483647
2147483647
2147483647
2147483647
3 and 3
3 and 4
2147483647
2147483647
 4 and 2
2147483647
4 and 4
updated to 2147483647
updated to 2147483647
updated to 2147483647
updated to 2147483647
updated to 0
0 -10 -20 2 -2
inf 0 - 10 inf inf
inf\ inf\ 0\ inf\ inf
inf inf 1 0 -4
0 -10 -20 2 0
 /home/bowers/svn/bowers/teaching/cpsc450-s21/grading/HW-9/hw9-beffypuffs/hw9\_tests.cpp:290:\ Failure for the control of the 
                       Expected: 5
To be equal to: weights[4][2]
Which is: -20
  \hbox{ [ FAILED ] Adjacency Matrix Test. Basic All Pairs Shortest Paths (0 ms) } \\
 [ RUN
                                           ] AdjacencyMatrixTest.NoPaths
0 and 0
2147483647
2147483647
2147483647
2147483647
2147483647
 1 and 1
2147483647
 2147483647
2147483647
2147483647
2147483647
2 and 2
 2147483647
2147483647
 2147483647
2147483647
 2147483647
3 and 3
 2147483647
2147483647
2147483647
2147483647
2147483647
4 and 4
updated to 2147483647
updated to 2147483647
updated to 2147483647
updated to 2147483647
updated to 0
0 inf inf inf inf
inf 0 inf inf inf
\quad \text{inf inf 0 inf inf} \quad
 inf inf inf 0 inf
0 inf inf inf 0
 /home/bowers/svn/bowers/teaching/cpsc450-s21/grading/HW-9/hw9-beffypuffs/hw9\_tests.cpp:312: Failure for the control of the c
                        Expected: std::numeric_limits<int>::max()
                        Which is: 2147483647
To be equal to: weights[i][j]
                       Which is: 0
 [ FAILED ] AdjacencyMatrixTest.NoPaths (0 ms)
 Γ RUN
                                           ] \  \, {\tt Adjacency Matrix Test.} \, {\tt Negative Cycles}
0 \ \ \text{and} \ \ 0
0 and 1
2147483647
2147483647
2147483647
1 and 1
1 and 2
```

```
2147483647
2 and 0
2147483647
2 and 2
2147483647
2147483647
2147483647
2147483647
3 and 3
/home/bowers/svn/bowers/teaching/cpsc450-s21/grading/HW-9/hw9-beffypuffs/hw9\_tests.cpp: 325: Failure for the control of the 
Expected: false
To be equal to: g.all_pairs_shortest_paths(weights)
                             Which is: true
 [ FAILED ] AdjacencyMatrixTest.NegativeCycles (0 ms)
[-----] 7 tests from AdjacencyMatrixTest (0 ms total)
 [-----] Global test environment tear-down
 [======] 14 tests from 2 test cases ran. (1 ms total)
            PASSED ] 8 tests.
FAILED ] 6 tests, listed below:
FAILED | AdjacencyListTest.BasicAllPairsShortestPaths
[FAILED | AdjacencyListTest.NoPaths
[FAILED | AdjacencyListTest.NegativeCycles
[FAILED | AdjacencyMatrixTest.BasicAllPairsShortestPaths
 [ FAILED ] AdjacencyMatrixTest.NoPaths
[ FAILED ] AdjacencyMatrixTest.NegativeCycles
     6 FAILED TESTS
```

Testing: 3/5

• missing required tests

Format and Comments: 5/5

Total Score: 23/35

• partial credit (since all pairs tests failed)