

Bonus Lab 1

Due **Tuesday 4/30/19** at 11:59 p.m. on Canvas and Zybook

Please follow the usual homework guidelines (honor code, code style requirements). Read the entire assignment before starting your work in order to plan your time.

Breadth-First Search, bonus1.py, Canvas

Implement the breadth-first search algorithm for traversing a graph. Assume the graph is given using an adjacency list stored in a dictionary. Your code should include a function for breadth-first search. The code should print the vertex IDs as the vertices are being visited.

It would be great if you use your `Queue` class from lab 9. But you can also use a Python list (`append` \cong `enqueue`, and `pop(0)` \cong `dequeue`).

Make sure to test your code with several graphs. At least with the graph that we studied in class.

You can also consider computing the shortest path values; but this is optional.

In your submission please submit the entire code (function and test cases).