

HW #2

Homework exercises should be done individually (You should write the solution by yourself). Solutions must be prepared in the Python programming language and submitted electronically as .py file before **11.59 pm on Sunday, November 14**. No credit will be given to solutions obtained verbatim from the Internet or other sources. **To get full credit for each question, you need to provide a brief explanation of your codes and the efficiency analysis with comments.**

3. Devise an algorithm that takes an $n \times n$ adjacency matrix of a directed graph as input, and determines whether the directed graph contains a simple cycle of odd length or not. The running time of your algorithm should be $O(n+m)$ where n is the number of vertices and m is the number of edges contained in the graph.