Task 1 (a)

The code reads the number of courses (N) and prerequisite requirements (M). 'DFS_topological_sort' performs a depth-first traversal and returns a topologically sorted order of the courses. The function uses stack to keep track of the order in which the courses are visited. 'BFS_topogical_sort' performs a breadth-first search to find a topologically sorted order of the courses. It uses queue and keeps track of in-degree for each course. 'Course_order_bfs' initializes a defaultdict to represent the graph and an array to store in-degrees of each course. Populates the graph and in-degree based on the prerequisite requirements. calling the BFS topological sort function to find a valid order of courses, writes the result to the output file or print 'Impossible' if no valid order exists. calls 'course_order_bfs' with the given number of courses and preacquisite requirements.