

```

classdef Network
    properties
        adjacencyMatrix
        adjacencyPlusDelayMatrix
        G
        Gdelay
        distanceMatrix
        distanceDelayMatrix
    end
    methods
        function obj = Network(adj, adjDelay)
            obj.adjacencyMatrix = adj;
            obj.adjacencyPlusDelayMatrix = adjDelay;
            fprintf("Generating graph G\n");
            obj.G = graph(adj);
            fprintf("Generating graph+delay Gdelay\n");
            obj.Gdelay = graph(adjDelay);
            % shortest path 계산 및 저장
            % https://www.mathworks.com/help/matlab/ref/graph.distances.html
            fprintf("Calc shortest path with adj matrix.\n");
            obj.distanceMatrix = distances(obj.G);
            % edge 에 weight 을 추가
            % 위에서 adj mat 만들때 추가하면 될듯? undirected 니까, 양방향 모두
            추가
            % 'positive' 옵션 주면 weighted graph 에서도 최단거리 계산할 수 있음
            fprintf("Calc shortest path with adj+delay matrix.\n");
            obj.distanceDelayMatrix = distances(obj.Gdelay, 'Method', 'positive');
        end
        function ret = getGraph(obj)
            ret = obj.G;
        end
        function ret = getGraphPlusDelay(obj)
            ret = obj.Gdelay;
        end
    end
end
end

```