CMPSC 465 Data Structures & Algorithms
Fall 2024 Mingfu Shao and Debarati Das

Recitation 7

Monday, Oct 21, 2024

1. Let $G = (V, E)$ be an directed graph with $s, t \in V$. Design an algorithm (by reducing to the max-flow problem) to find the maximum number of mutually edge-disjoint s-t paths in G. We define a set of s-t paths are mutually edge-disjoint if any two of them do not share any edge (they may share vertices).

2. Let $G = (V, E)$ be an directed graph with $s, t \in V$. Design an algorithm (by reducing to the max-flow problem) to find the maximum number of mutually vertex-disjoint s-t paths in G. We define a set of s-t paths are mutually vertex-disjoint if any two of them do not share any vertex (and hence do not share any edge as well).