(CSE575)-Foundation Of Algorithms
HW-4-Report

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1. **Input to the Algorithm:**

   The input provided to the algorithms is the combination of source and destination along with the flight capacity which acts as the node weight and the departure and arrival timings which are pre-processes to be in (0-2400) scale which makes it easier to compare the timings during the process.

2. **PseudoCode:**

   Start edges with start node from "LAX"
   Keep a min_cap and total_cap variable
   Check whether depature_time of current flight>arrival_time of next flight
   Start appending the edge capacity to min cap
   If the total travel time<2400:
         Then append that min_cap of that path to total_cap
   Repeat this process until all edges are covered.

3. **Time Complexity:**

   O(VE^2)

4. **Output:**

   4440