

## Hints for Dim Sum

- In this question, each type of dim sum has two parameters:  $C_i$  and  $D_i$ .
  - As we have seen in previous lab questions, it is often very useful to create some ordering on one of the parameters, before trying to process the data. For example, in lab 7 Knapsack, arranging the items in order of  $W_i$  allowed us to process the items using a sliding window.
  - Does it matter in what order we process the dim sum by?
  - If so, in what order should we process the dim sum by?  $C_i$ ?  $D_i$ ?
- Suppose you have already ordered  $P$  types of dim sum, and you are considering whether you should swap out one of the current dim sum you have ordered with the next type of dim sum
  - Under what conditions would it be beneficial to perform this swap?
  - Which of the existing dim sum should you swap with?
  - How can you efficiently find dim sum that you should swap with?
- The maximum number of dim sum that you can order is  $P$ 
  - Is it always ideal to order exactly  $P$  types of dim sum?