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## Part I Data Structure

#### **CHAPTER**

### PRIORITY QUEUES AND HEAPS

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#### Data

- Collection of elements
- Each element x has a priority x.priority

#### Operations

- Insert (Q, x)Add x to QNote: x.priority can be non-unique
- Max(Q)Return the element with max priority Note: Q is unchanged
- Extract-Max(Q) Remove and return the element with the max priority

#### 1.1 Implementation

#### 1.1.1 Implementation 1: unsorted linked list

# Part II Analysis