Data Structures

Queue – Introduction

Team Emertxe

Queue – Introduction

Data Structure –Queue

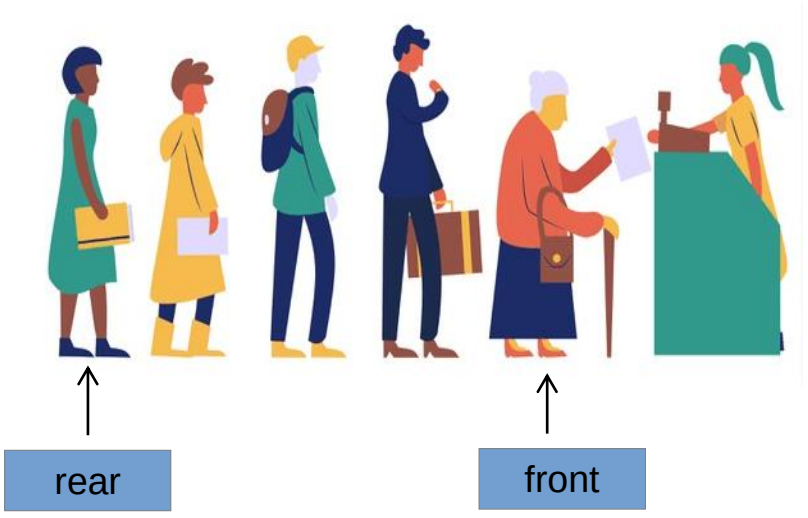
Introduction

- Linear data Structure
- First in First out (FIFO)

Data Structure –Queue

Introduction

- Linear data Structure
- First in First out (FIFO)

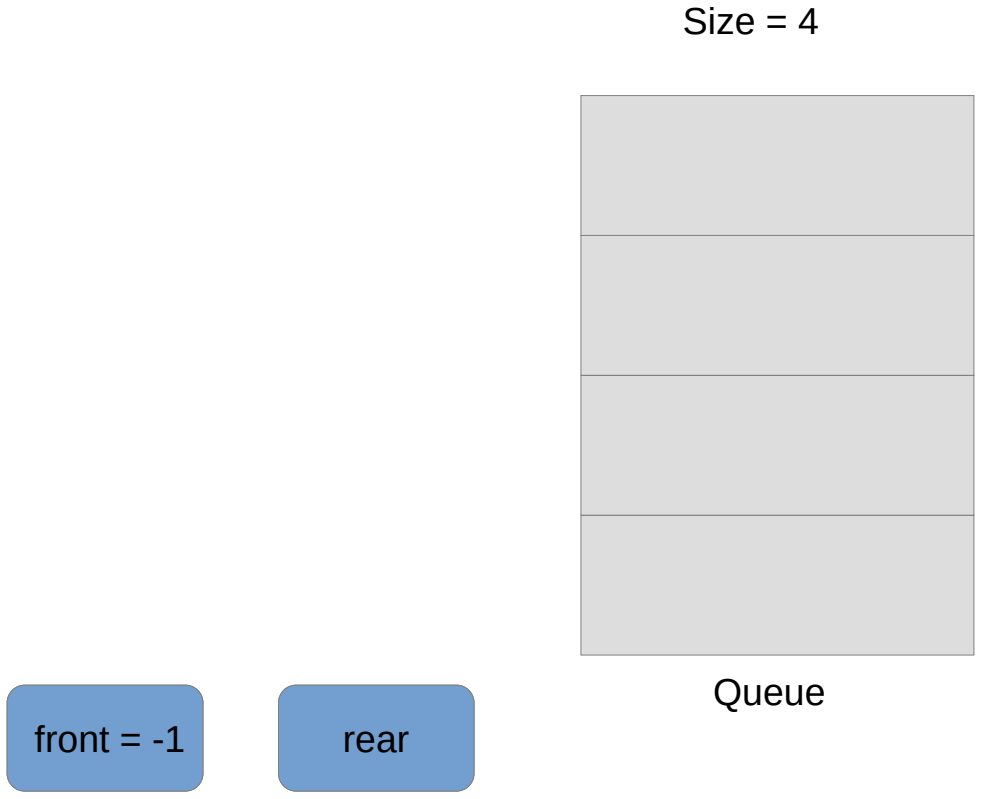


A queue is an ordered list of elements where an element is inserted at one end and removed from the other end of the queue.

EMERTXE

Introduction

Queue : Operations



Introduction

enqueue(10)

Queue : Operations

Enqueue Operation

Size = 4

rear = 0

front = -1

rear = -1

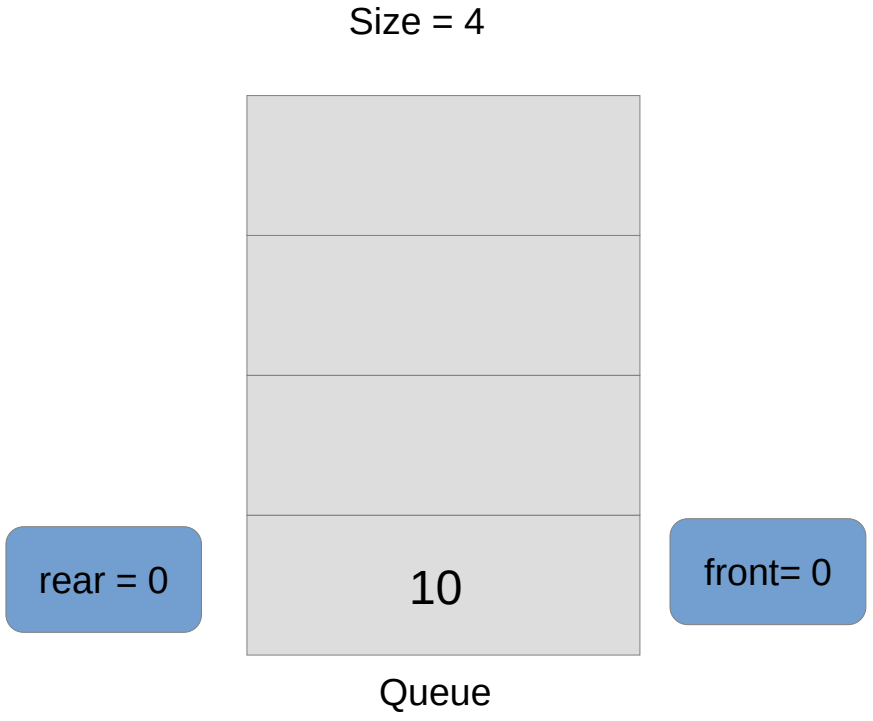
Queue

Introduction

enqueue(10)

Queue : Operations

Enqueue Operation

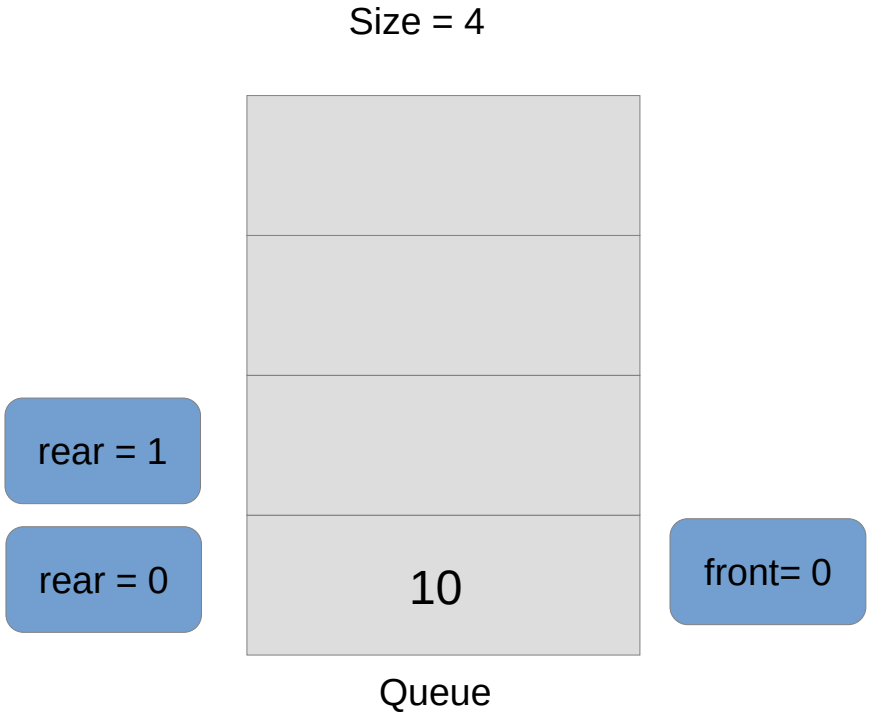


Introduction

enqueue(20)

Queue : Operations

Enqueue Operation



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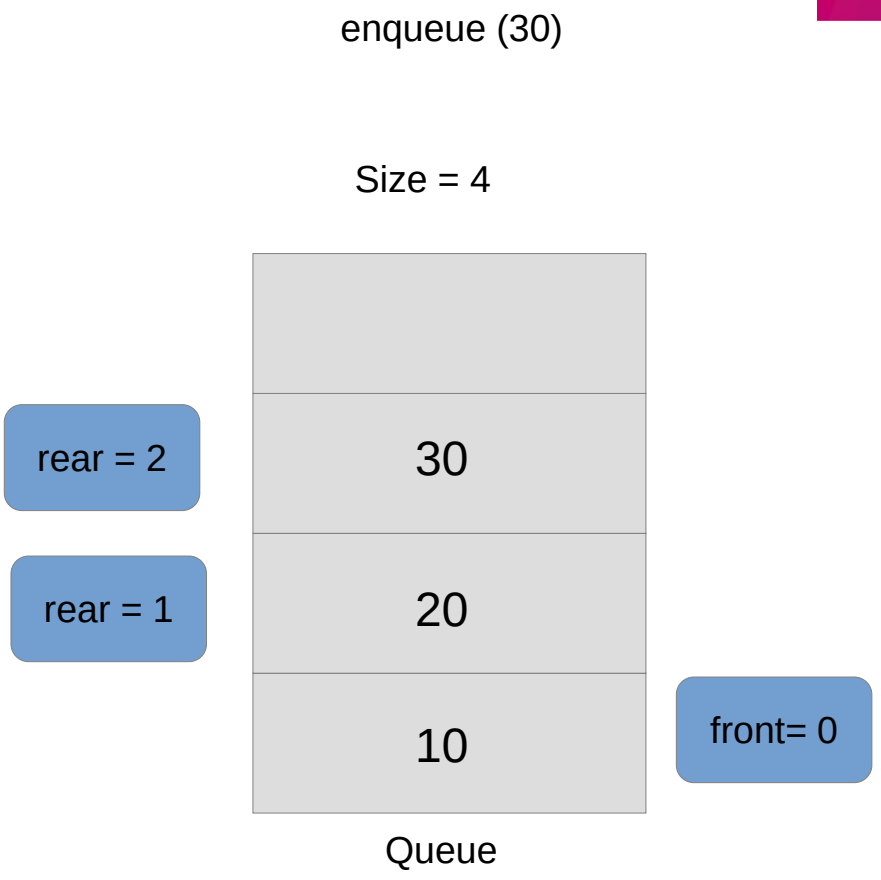
Queue : Operations

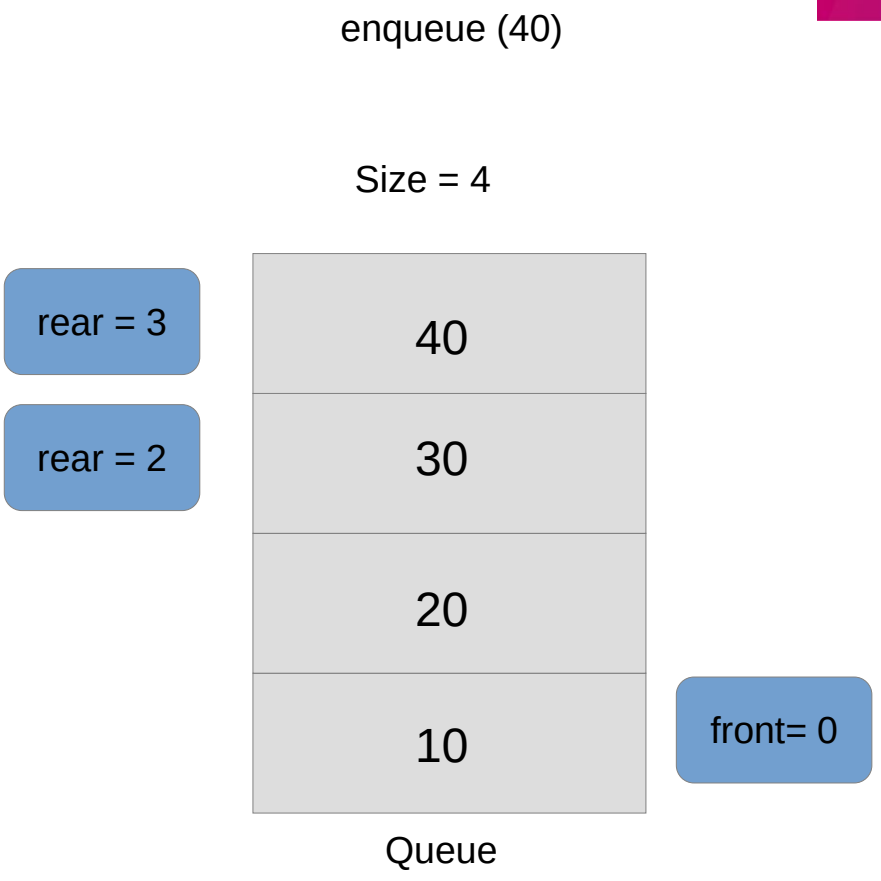
Enqueue Operation



Introduction

Queue : Operations

Enqueue Operation



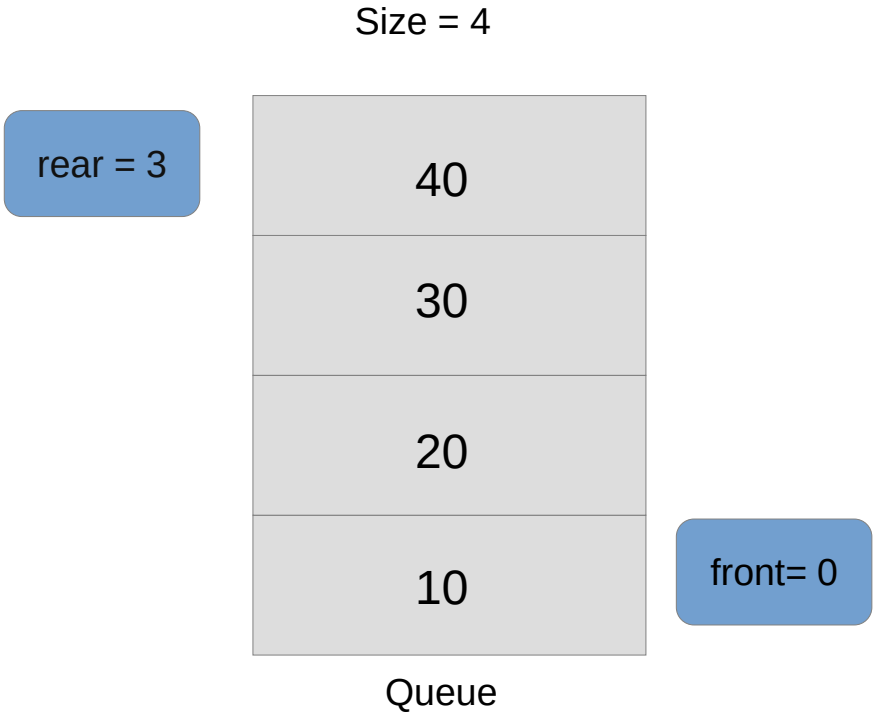
Introduction

Queue is full

enqueue (50)

Queue : Operations

Enqueue Operation

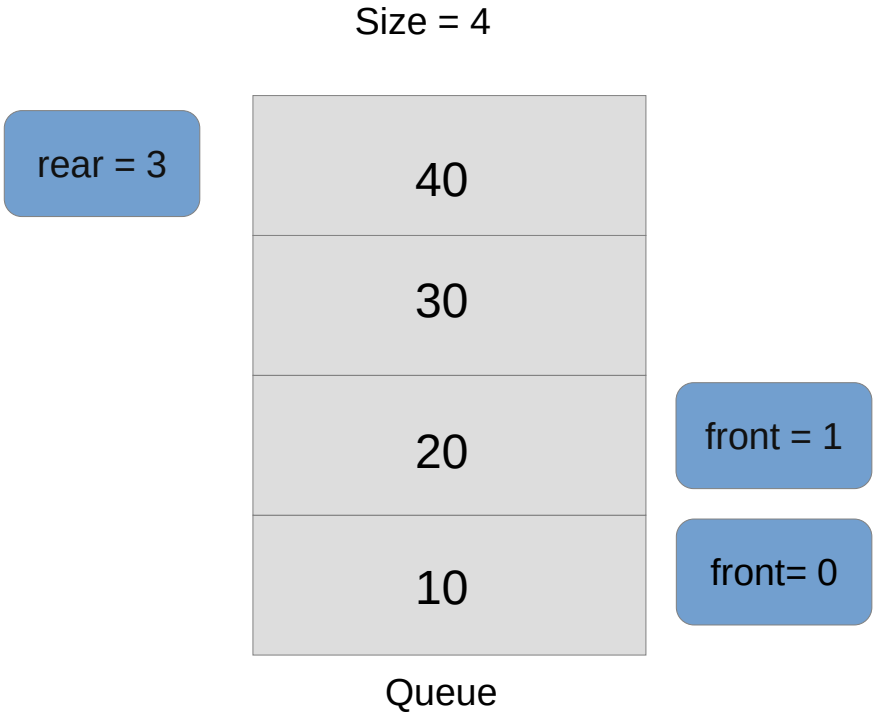


Introduction

dequeue ()

Queue : Operations

Dequeue Operation

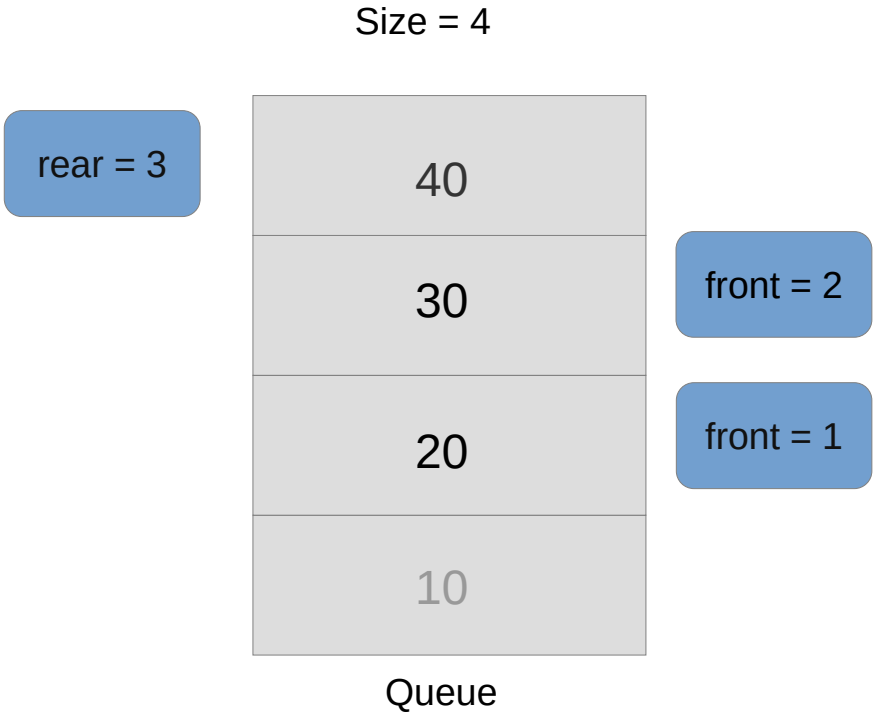


Introduction

dequeue ()

Queue : Operations

Dequeue Operation

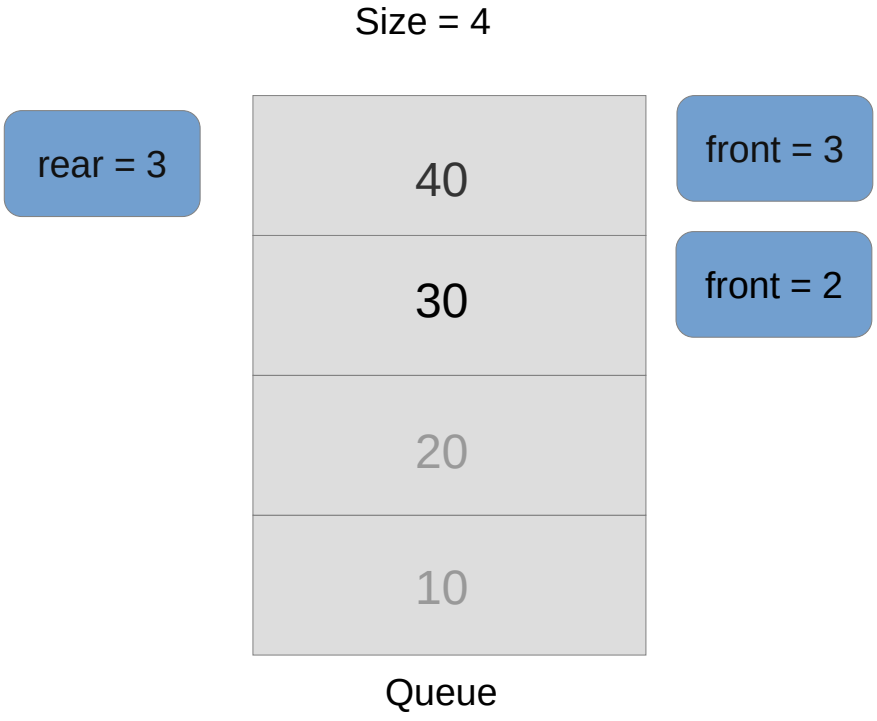


Introduction

dequeue ()

Queue : Operations

Dequeue Operation

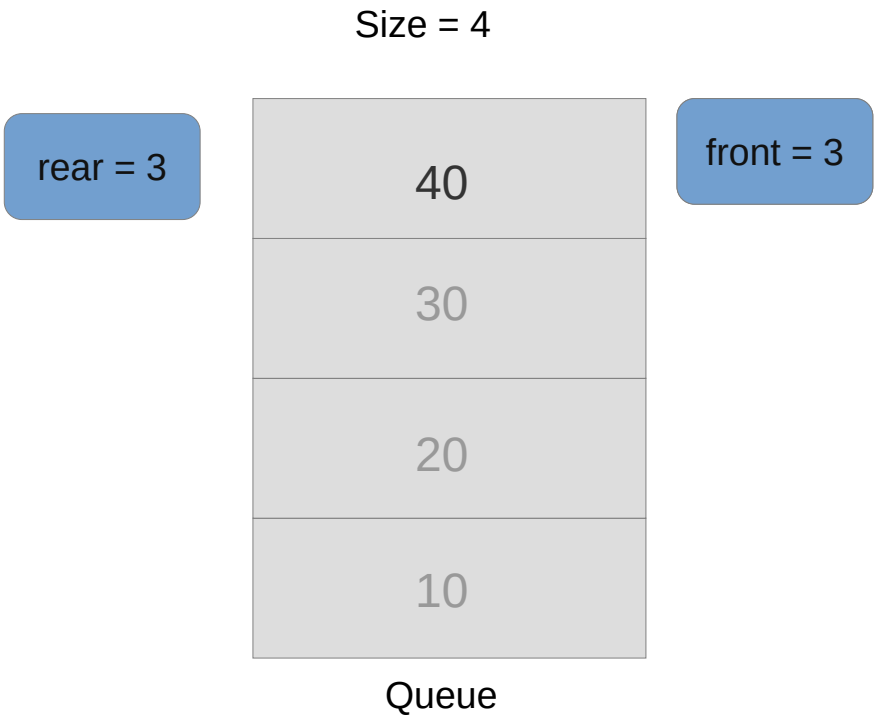


Introduction

dequeue ()

Queue : Operations

Dequeue Operation



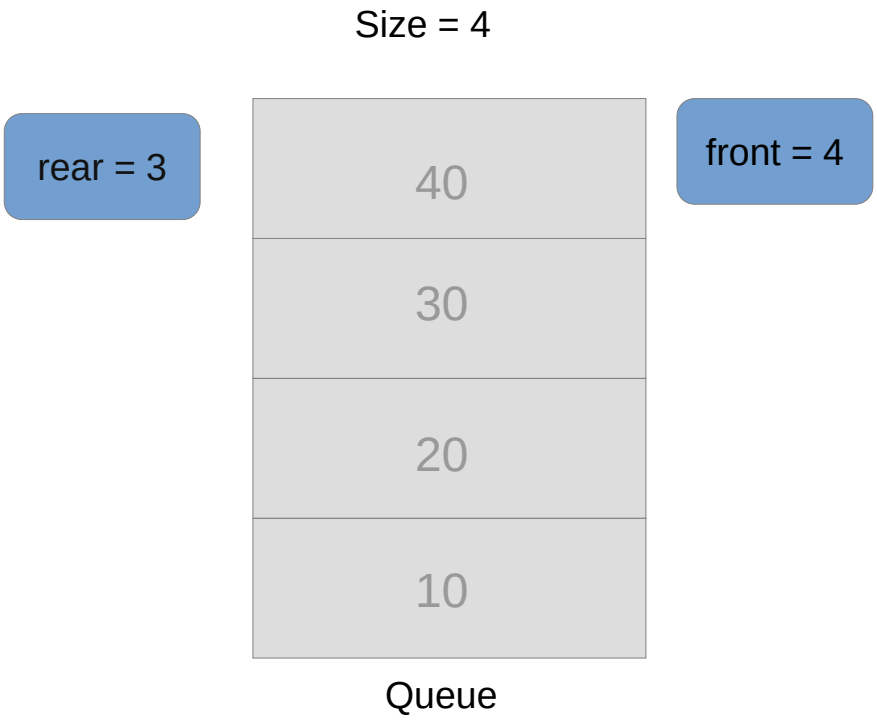
Introduction

Queue is empty

dequeue ()

Queue : Operations

Dequeue Operation



Data Structure –Queue

Introduction

.Types

1. Linear Queue
2. Circular Queue

Data Structure –Queue

Introduction

- **Types**
  1. Linear Queue
  2. Circular Queue
- **Implementation**
  1. Array
  2. Linked List
- **Application**
  1. Serving requests on a single shared resource,like a printer,CPU Scheduling etc
  2. Handling of interrupts in real-time systems

A

B

C

A	B	C

Types of Queue