

**22/SP-COP-2805C-61163 Java Advanced**

**Assignment 10.10**

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Created By: Tristan Rogers

# Document Version Control

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# Document Purpose

The purpose of this document is to outline the process behind the Queue class and discuss the parameters and functions involved.

# Technical Specifications

## Purpose of Technical Implementation

This program creates a queue object with a default size of 8 and allows the user to add and remove elements from the queue. There are other methods involved that contribute to the queue class in different ways.

## Technical Implementation Components

* This program uses one Queue class that contains the methods and values required to create the queue object. The constructor creates a queue object with a default capacity of 8. The enqueue method adds integer v into the queue. The dequeue method will remove and return an element within the queue. getSize will return the size of the queue, while empty is a boolean method that will return true if the queue is empty.

## Technical Implementation Pseudocode

*Initialize variables with a default capacity of 8 and initial size of 0.*

*add twenty integers to the queue*

*remove and display the numbers from the queue*

## Account Implementation

The Queue contructor works to create a new queue with the default capacity of 8 and sets the size to 0.

The enqueue method adds v to the queue while increasing the size by one. An if statement creates a temporary integer array to double the size of the queue once there are more elements than the size.

the dequeue method does the opposite, removing elements of the queue in order and displaying them as it does so.

The boolean method empty is designed to return true once the queue is empty.

The getSize method returns the current size of the queue.

Lastly, the main method is used as a form of testing to ensure that the called methods are working as intended.