DSA Lab

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Bahria University

**Lab # 5**

**Priority Queue Implementation**

LAB Journal

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**Lab 5: Priority Queue** **Implementation**

**TASK:**

Admin, Faculty, student

**Lab Task GitHub Link:**

[Link](https://github.com/iasimkhan2005/DSA.git)

**CODE:**

#include<iostream>

using namespace std;

class DynamicQuene {

private:

int\* arr;

int size;

int currentSIZE;

int front;

int rear;

int\* value;

public:

//s is the size of the array

DynamicQuene(int s) {

arr = new int[s];

size = s; //size of the array

currentSIZE = 0; //current size of the array

front = -1;

rear = -1;

value = new int[s];

}

void insert(int value) {

//when the quene capacity gets full

if (currentSIZE == size) {

cout << "Quene Overflow" << endl;

return;

}

rear = (rear + 1) % size;

arr[rear] = value;

currentSIZE++;

if (front == -1)

front = rear;

}

void remove() {

value = &arr[front];

front = (front + 1) % size;

currentSIZE--;

}

void show() {

for (int i = 0; i< currentSIZE ; i++)

{

int index = (front + i) % size;

if (index >rear)

return;

cout << arr[index] << endl;

}

}

};

int main() {

DynamicQuene s(5);

cout << "Before Removing From Queue" << endl;

s.insert(1);

s.insert(2);

s.insert(3);

s.show();

cout << "After Removing(1,2) From Queue" << endl;

s.remove();

s.remove();

s.show();

cout << "After Inserting Two Values in Queue." << endl;

s.insert(1);

s.insert(2);

s.show();

s.insert(6);

}

**OUTPUT:**

* **MENU:**

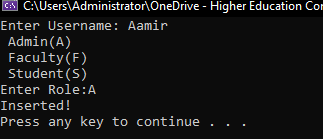
**A screenshot of a computer program

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* **Insert:**

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****

**A screen shot of a computer

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* **Display**

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