Name - Manaswi Santosh Kulkarni

Roll No - 47

PRN - F23112054

Q batch Comp-2

Group E-29

Queues are frequently used in computer programming, and a typical example is the

creation of a job queue by an operating system. If the operating system does not use

priorities, then the jobs are processed in the order they enter the system. Write C++

program for simulating job queue. Write functions to add job and delete job from queue.

#include <iostream>

using namespace std;

class queue

{

int data[20];

int f, r;

public:

queue(){

f = -1;

r = -1;

}

int isempty(){

if (f == -1){

return 1;

}else{

return 0;

}

}

int isfull(){

if (r >= 20){

return 1;

}else{

return 0;

}

}

void enqueue(int x){

if (isfull() == 1){

cout << "job queue is full" << endl;

}else{

if (f == -1)

f++;

r++;

data[r] = x;

}

}

void dequeue(){

int x;

if (isempty()){

cout << "job queue is empty" << endl;

}else{

x = data[f];

f++;

cout << x << "Job deleted " << endl;

}

}

void disp(){

cout << "job queue is as :" << endl;

for (int i = f; i <= r; i++){

cout << data[i] << " ";

}

cout << endl;

}

};

int main()

{

int ch, n, x, d;

queue q;

cout << "Enter the no. of jobs in queue. " << endl;

cin >> n;

cout << "Enter jobs " << endl;

for (int i = 0; i < n; i++){

cin >> d;

q.enqueue(d);

}

do{

cout << "\*\*\*\*\*\*\*\*\*\*MENU\*\*\*\*\*\*\*\*\*\*" << endl;

cout << "1)Add job " << endl;

cout << "2)Delete job " << endl;

cout << "3)Display" << endl;

cout << endl;

cout << "Enter your choice " << endl;

cin >> ch;

switch (ch){

case 1:

cout << "Enter the job to be added " << endl;

cin >> d;

q.enqueue(d);

cout << "Job added" << endl;

q.disp();

break;

case 2:

q.dequeue();

q.disp();

break;

case 3:

q.disp();

break;

default:

cout << "Invalid choice" << endl;

break;

}

cout << "Do you want to continue" << endl;

cout << "1. YES" << endl;

cout << "2. NO" << endl;

cin >> x;

} while (x == 1);

}