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/*
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AssignmentNo:10
AssignmentTitle:Write C++ program for simulating job queue.
Write functions to add job and delete job from queue.
*/
#include<iostream>
using namespace std;
class Lqueue
{
int q[5],f,r;
public:
Linear() //constructor
{
f=-1;
r=-1;
}
int isfull();
int isempty();
void display();
void enq();
void deq();
};
int Lqueue::isfull() //Tocheckwhetherqueueisfullornot
{
if(r==4)
{
return 1;
}
else
{
return 0;
}
}
int Lqueue::isempty() //Tocheckwhetherqueueisemptyornot
{
if(f==-1&& r== -1)
{
return 1;
}
else
{
return 0;
}
}
void Lqueue::enq() //Toinsertvalueinqueue
{

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int x;
cout<<"Enter value to be insert=";
cin>>x;
if(f==-1&&r==-1)
{
f++,r++;
q[r]=x;
}
else
{
r++;
q[r]=x;
}
}
void Lqueue::display() //To display value from queue
{
int i;
cout<<"Queue is:"<<endl;
for(i=f;i<=r;i++)
{
cout<<q[i]<<" ";
}
}
void Lqueue::deq() //To delete value from queue
{
cout<<"Deleted element is:"<<q[f];
if(f==r)
{
f=-1,r=-1;
}
else
{
f++;
}
}
int main() //Main Function
{
int ch,x;
Lqueue q;
//menu
while(1)
{
cout<<"\n1.To Insert element"<<endl;
cout<<"2.To Display element"<<endl;
cout<<"3.To Delete element"<<endl;
cout<<"Enter your choice=";
cin>>ch;
switch(ch)

```

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{
case1:if(q.isfull())
{
cout<<"\nQueue is full";
}
else
{
q.enq();
}
break;
case2:if(q.isempty())
{
cout<<"Queue is Empty";
}
else
{
q.display();
}
break;
case3:if(q.isempty())
{
cout<<"\nQueue is empty";
}
else
{
q.deq();
}
break;
}
}
}
/*

```

OUTPUT:

```

1.ToInsertelement
2.ToDisplayelement
3.ToDeleteelement
Enteryourchoice=1 //Insertelement
Entervalue to be insert=10
1.ToInsertelement
2.ToDisplayelement
3.ToDeleteelement
Enteryourchoice=1
Entervalue to be insert=20
1.ToInsertelement
2.ToDisplayelement
3.ToDeleteelement
Enteryourchoice=1
Entervalue to be insert=30

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```
1.ToInsertelement
2.ToDisplayelement
3.ToDeleteelement
Enteryourchoice=1
Entervalue to be insert=40
1.ToInsertelement
2.ToDisplayelement
3.ToDeleteelement
Enteryourchoice=1
Entervalue to be insert=50
1.ToInsertelement
2.ToDisplayelement
3.ToDeleteelement
Enteryourchoice=1
Queue is full //Queue is full
1.ToInsertelement
2.ToDisplayelement
3.ToDeleteelement
Enteryourchoice=2
Queue is: //Display queue
1020304050
1.ToInsertelement
2.ToDisplayelement
3.ToDeleteelement
Enteryourchoice=3 //Delete element
Deleted element is:10
1.ToInsertelement
2.ToDisplayelement
3.ToDeleteelement
Enteryourchoice=3
Deleted element is:20
1.ToInsertelement
2.ToDisplayelement
3.ToDeleteelement
Enteryourchoice=3
Deleted element is:30
1.ToInsertelement
2.ToDisplayelement
3.ToDeleteelement
Enteryourchoice=3
Deleted element is:40
1.ToInsertelement
2.ToDisplayelement
3.ToDeleteelement
Enteryourchoice=3
Deleted element is:50
1.ToInsertelement
2.ToDisplayelement
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3.ToDeleteelement
Enteryourchoice=3
Queueisempty //Queueisempty
1.ToInsertelement
2.ToDisplayelement
3.ToDeleteelement
Enteryourchoice=
*/
```