Group E1:--- Kaustubh Shrikant Kabra SE COMP-1 20

Program:---

#include <iostream>

#define MAX 10

using namespace std;

struct queue

{ int data[MAX];

int front,rear;

};

class Queue

{ struct queue q;

public:

Queue(){q.front=q.rear=-1;}

int isempty();

int isfull();

void enqueue(int);

int delqueue();

void display();

};

int Queue::isempty()

{

return(q.front==q.rear)?1:0;

}

int Queue::isfull()

{ return(q.rear==MAX-1)?1:0;}

void Queue::enqueue(int x)

{q.data[++q.rear]=x;}

int Queue::delqueue()

{return q.data[++q.front];}

void Queue::display()

{ int i;

cout<<"\n";

for(i=q.front+1;i<=q.rear;i++)

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

}

int main()

{ Queue obj;

int ch,x;

do{ cout<<"\n 1. insert job\n 2.delete job\n 3.display\n 4.Exit\n Enter your choice:";

cin>>ch;

switch(ch)

{ case 1: if (!obj.isfull())

{ cout<<"\n Enter data:";

cin>>x;

obj.enqueue(x);

}

else

cout<< "Queue is overflow";

break;

case 2: if(!obj.isempty())

cout<<"\n Deleted Element="<<obj.delqueue();

else

{ cout<<"\n Queue is underflow"; }

cout<<"\nremaining jobs :";

obj.display();

break;

case 3: if (!obj.isempty())

{ cout<<"\n Queue contains:";

obj.display();

}

else

cout<<"\n Queue is empty";

break;

case 4: cout<<"\n Exit";

}

}while(ch!=4);

return 0;

}

**Output:-**

/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*OUTPUT\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

1. insert job

2.delete job

3.display

4.Exit

Enter your choice:1

Enter data:34

1. insert job

2.delete job

3.display

4.Exit

Enter your choice:1

Enter data:64

1. insert job

2.delete job

3.display

4.Exit

Enter your choice:1

Enter data:84

1. insert job

2.delete job

3.display

4.Exit

Enter your choice:1

Enter data:93

1. insert job

2.delete job

3.display

4.Exit

Enter your choice:3

Queue contains:

34 64 84 93

1. insert job

2.delete job

3.display

4.Exit

Enter your choice:2

Deleted Element=34

remaining jobs :

64 84 93

1. insert job

2.delete job

3.display

4.Exit

Enter your choice:3

Queue contains:

64 84 93

1. insert job

2.delete job

3.display

4.Exit

Enter your choice:4

Exit\*/