D28-/\*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>

**#define** size 5

**using** **namespace** std;

**class** queue

{

**private**:

**int** que[size];

**int** front,rear;

**public**:

**queue**()

{

front=-1;

rear=-1;

}

**int** **qfull**();

**int** **qempty**();

**void** **insertjob**(**int**);

**void** **deletejob**();

**void** **display**();

}q;

**int** **queue::qfull**()

{

**if**(q.rear>=size-1)

**return** 1;

**else**

**return** 0;

}

**int** **queue::qempty**()

{

**if**(q.front==-1 ||q.front>q.rear)

**return** 1;

**else**

**return** 0;

}

**void** **queue::insertjob**(**int** item)

{

**if**(q.front==-1)

q.front++;

q.que[++q.rear]=item;

}

**void** **queue::deletejob**()

{

**int** item;

item=q.que[q.front];

q.front++;

cout<<"\ndeleted element is:"<<item;

}

**void** **queue::display**()

{

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

cout<<q.que[i];

}

**int** **main**()

{

**int** ch,item;

**char** ans;

**do**

{

cout<<"1.insert job\n2.delete job\n3. display job queue\nenter your choice\n";

cin>>ch;

**switch**(ch)

{

**case** 1:

**if**(q.qfull())

cout<<"\nqueue is overflow";

**else**

{

cout<<"\nenter the data you want to insert\n";

cin>>item;

q.insertjob(item);

}

**break**;

**case** 2:

**if**(q.qempty())

cout<<"\n queue is empty";

**else**

q.deletejob();

**break**;

**case** 3:

**if**(q.qempty())

cout<<"\n queue is empty";

**else**

q.display();

**break**;

}

cout<<"\n do you want to continue?";

cin>>ans;

}**while**(ans=='y'||ans=='Y');

**return** 0;

}

output

1.insert job

2.delete job

3. display job queue

enter your choice

1

enter the data you want to insert

10

do you want to continue?y

1.insert job

2.delete job

3. display job queue

enter your choice

1

enter the data you want to insert

20

do you want to continue?y

1.insert job

2.delete job

3. display job queue

enter your choice

1

enter the data you want to insert

30

do you want to continue?y

1.insert job

2.delete job

3. display job queue

enter your choice

1

enter the data you want to insert

40

do you want to continue?y

1.insert job

2.delete job

3. display job queue

enter your choice

1

enter the data you want to insert

50

do you want to continue?y

1.insert job

2.delete job

3. display job queue

enter your choice

1

queue is overflow

do you want to continue?y

1.insert job

2.delete job

3. display job queue

enter your choice

3

1020304050

do you want to continue?y

1.insert job

2.delete job

3. display job queue

enter your choice

2

deleted element is:10

do you want to continue?y

1.insert job

2.delete job

3. display job queue

enter your choice

3

20304050

do you want to continue?y

1.insert job

2.delete job

3. display job queue

enter your choice

2

deleted element is:20

do you want to continue?y

1.insert job

2.delete job

3. display job queue

enter your choice

2

deleted element is:30

do you want to continue?y

1.insert job

2.delete job

3. display job queue

enter your choice

3

4050

do you want to continue?y

1.insert job

2.delete job

3. display job queue

enter your choice

2

deleted element is:40

do you want to continue?y

1.insert job

2.delete job

3. display job queue

enter your choice

3

50

do you want to continue?y

1.insert job

2.delete job

3. display job queue

enter your choice

2

deleted element is:50

do you want to continue?y

1.insert job

2.delete job

3. display job queue

enter your choice

2

queue is empty

do you want to continue?y

1.insert job

2.delete job

3. display job queue

enter your choice

3

queue is empty

do you want to continue?n