//5) In this problem you have to take an array of size 10 and write the Enqueue, Dequeue and Display functions for that and

//also take care of overflow and underflow conditions. All the work must be done in classes.

//

//i. Furthermore you must write isEmpty(), isFull() and status() function.

//ii. isEmpty() has return type of Boolean and check the underflow.

//iii. isFull() has return type of Boolean and check the overflow.

//iv. Status() tells the current available spaces in the stack.

///////////////////////////////////////////////////////////////////////

#include<iostream>

using namespace std;

class quee

{

private:

int arr[10];

int front;

int back;

public:

quee()

{

front=-1;

back=-1;

}

////////////////////////////////////

void isEmpty()

{

if(front==back)

{

cout<<"stack is empty"<<endl;

}

}

/////////////////////////////////////////

void isFull()

{

if(back==front-1)

{

cout<<"stack is full"<<endl;

}

}

////////////////////////////////////

void enquee(int x)

{

isFull();

arr[++front]=x;

}

//////////////////////////////////////

int dequee()

{

isEmpty();

return arr[++back];

}

//////////////////////////////////////

void status()

{

if(back==front-1)

{

cout<<"stack is full"<<endl;

}

if(front==back)

{

cout<<"stack is empty"<<endl;

}

}

};

////////////////////////////////////////

void main(void)

{

quee q1;

q1.status();

for(int i=0;i<10;i++)

{

q1.enquee(i+10);

}

q1.status();

cout<<"data in quee is "<<endl;

for(int i=0;i<10;i++)

{

cout<<q1.dequee()<<endl;

}

q1.status();

system("pause");

}