#include <iostream>

using namespace std;

template <typename T>

class Queue{

private:

T \*arr;

int f; //front

int r; //rear

int ms; //maximum size

int cs; //Current size

public:

Queue(int ds=4) //4 is bydefault size of queue

{

f=0;

ms=ds;

r=ms-1;

arr=new T[ms];

cs=0;

}

bool isFull(){

return cs==ms;

}

bool isEmpty(){

return cs==0;

}

//Push:Enqueue function which insert element at rear end

void push(T data)

{

if(!isFull())

{

r=(r+1)%ms;

arr[r]=data;

cs++;

}

}

void pop(){

if(!isEmpty()){

f=(f+1)%ms;

cs--;

}

}

T getFront(){

return arr[f];

}

};

int main() {

Queue<int> q(10); //queue of size 10

for(int i=1;i<=6;i++){

q.push(i);

}

q.pop();

q.push(8);

while(!q.isEmpty()){

cout<<q.getFront()<<" ";

q.pop();

}

}

Output-

2 3 4 5 6 8