Roll No:07 Name:Ameya Chousalkar

practical No:5

Queue_07

```
#include<iostream>
#define MAX 100

using namespace std;

class  Queue
{
public:

        int n;
int size;
int rear;
int front;

int top;
        int arr[MAX];
Queue()
{
front=0;
rear=-1;
}
        void enqueue();
        void  dequeue();
        void display();
};


void Queue::enqueue()
{

if(rear==size-1)
{
cout<<"queue overflow"<<endl;
}

else
{
rear=rear+1;
cout<<"enter the element to enqueued"<<endl;
cin>>n;
arr[rear]=n;
cout<<"the element"<<n<<"has been inserted at location"<<rear<<endl;
}
}

void Queue::dequeue()
```

```
{
if(front>rear)
{
cout<<"queue underflow";
}
else
{

//front=front+1;

cout<<"element "<<arr[ front++ ]<<" has been poped out"<<endl;
}

}

void Queue::display()
{
if(front>rear)
{
cout<<"queue is empty"<<endl;
}

else
{
cout<<"the queue is :"<<endl;

for (int i=front;i<=rear;i++)
{
cout<<arr[i]<<endl;
}
}
}


int main()
{
Queue s;
int ch;

cout<<" enter the size of Queue array"<<endl;
cin>>s.size;

do{
cout<<"enter the choice"<<endl;
cout<<"1:enqueue"<<endl;
cout<<"2:dequeue"<<endl;
cout<<"3:display"<<endl;
cout<<"4:exit"<<endl;


cin>>ch;
```

```
switch(ch)
{
 case 1:
          s.enqueue();
break;
case 2:
          s.dequeue();
break;

case 3:
s.display();

break;
case 4:
break;
default:
cout<<" enter the choice from 1 to 4 only"<<endl;
break;
}
}while(ch!=4);
return 0;
}
```

output: