

## **DSA Assignment-2**

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Batch-O2\_TP304

```
include<iostream>
using namespace std;
```

```
class Queue
{
private:
int size;
int f;
int r;
long int *phone;
string *name;
public:
    Queue(int size);
    void Insert();
    void Delete();
    void display();
};
```

```
Queue::Queue(int size)
{
    this->size = size;
    f = -1;
    r = -1;
    phone = new long int[size];
    name = new string[size];
}
```

```
void Queue::Insert()
{
    if((r + 1) % size == f)
        f = (f+1)%size;
```

```
if(f== -1 )
    { f=0;
```

```

        r=0;
    }
else
    r = (r+1)%size;
    cout<<"Enter Phone Number : ";
    long int x;
    cin>>x;
    phone[r]=x;
    cout<<endl<<"Enter Name : ";
    string y;
    cin>>y;
    name[r]=y;
}

```

```

void Queue::display()
{cout<<endl;
  int i =r+1;
  if(f == -1)
    cout<<"No call dialed till now"<<endl;
  else{
    do
    {
      i = (i-1)%size;
      if(i== -1)
        i=size-1;

      cout<<name[i]<<" " <<phone[i]<<endl;
    }
    while(i!=(f)%size);
  }
  cout<<endl;
}

```

```

int main()
{
  Queue q(10);
  int ch;

  do {  cout<<"1) Insert Call"<<endl<<"2) Display call"<<endl<<"Press any other key to
  EXIT"<<endl;
        cout<<"Enter your choice : "<<endl;
        cin>>ch;
        switch (ch)
        {
          case 1: q.Insert();

```

```
        break;
        case 2: q.display();
        break;
    }
} while(ch==1 || ch==2);

cout<<"Code Exited as choice was other key";
}
```