import java.util.\*;

public class InsertionSingleLL

{

public static class Node

{

int data;

Node next;

Node(int data)

{

this.data=data;

this.next=null;

}

}

Node head =null;

public void insert()

{

int n1,m;

System.*out*.println("INSERTION");

System.*out*.println("Press 1 to add at begining, press 2 add to at ending! and press 3 to add at specific location:");

Scanner sc=new Scanner(System.*in*);

m=sc.nextInt();

switch(m)

{

case 1:

int data ,n2;

do

{

System.*out*.println("Enter data");

data=sc.nextInt();

Node new\_node=new Node(data);

if(head==null)

{

head=new\_node;

}

else

{

new\_node.next=head;

head=new\_node;

}

System.*out*.println("do you want add more node then press 1 otherwise enter other then 1");

n2=sc.nextInt();

}

while(n2==1);

break;

case 2:

do

{

System.*out*.println("Enter data");

data=sc.nextInt();

Node new\_node=new Node(data);

if(head==null)

{

head=new\_node;

}

else

{

Node cur=head;

while(cur.next!=null)

{

cur=cur.next;

}

cur.next=new\_node;

}

System.*out*.println("do you want add more node then press 1 otherwise enter other then 1");

n2=sc.nextInt();

}

while(n2==1);

break;

case 3:

System.*out*.println("First you have to add some nodes:");

do

{

System.*out*.println("Enter data");

data=sc.nextInt();

Node new\_node=new Node(data);

if(head==null)

{

head=new\_node;

}

else

{

Node cur=head;

while(cur.next!=null)

{

cur=cur.next;

}

cur.next=new\_node;

}

System.*out*.println("do you want add more node then press 1 otherwise enter other then 1");

n2=sc.nextInt();

}

while(n2==1);

System.*out*.println("Enter the location at which you want to add node:");

n1=sc.nextInt();

do

{

System.*out*.println("Enter data");

data=sc.nextInt();

Node new\_node=new Node(data);

if(head==null)

{

head=new\_node;

}

else

{

Node cur=head;

Node temp=head.next;

while(cur.data!=n1)

{

cur=temp;

temp=temp.next;

}

new\_node.next=cur.next;

cur.next=new\_node;

}

System.*out*.println("do you want add more node then press 1 otherwise enter other then 1");

n2=sc.nextInt();

}

while(n2==1);

break;

}

}

public void display(){

if(head==null)

{

System.*out*.println("LL doesnot exist");

}

else

{

Node temp=head;

while(temp!=null)

{

System.*out*.print(temp.data+" ");

temp=temp.next;

}

}

}

public static void main(String args [])

{

InsertionSingleLL a=new InsertionSingleLL();

a.insert();

a.display();

}

}