**INSERTION AT LAST IN LINKED LIST**

#include<iostream>

using namespace std;

class node

{

public:

int a;

node \*ptr;

node(int val)

{

a=val;

ptr=NULL;

}

};

node \*head;

void insertLast(int val)

{

node \*n=new node(val);

node \*temp=head;

if(head==NULL)

{

head=n;

}

else

{

while(temp->ptr!=NULL)

{

temp=temp->ptr;

}

temp->ptr=n;

}

}

void display()

{

node \*temp=head;

while(temp->ptr!=NULL)

{

cout<<temp->a<<"->";

temp=temp->ptr;

}

}

int main()

{

insertLast(1);

insertLast(2);

insertLast(3);

insertLast(4);

insertLast(5);

display();

return 0;

}

**INSERT AT FRONTIN LINKED LIST**

void insertFront(int val)

{

node \*n=new node(val);

n->ptr=head;

head=n;

}

int main()

{

insertLast(1);

insertLast(2);

insertLast(3);

insertLast(4);

insertLast(5);

display();

insertFront(6);

display();

insertFront(9);

display();

return 0;

}

#include<iostream>

using namespace std;

class node

{

public:

int a;

node \*ptr;

node(int val)

{

a=val;

ptr=NULL;

}

};

node \*head;

void insertLast(int val)

{

node \*n=new node(val);

node \*temp=head;

if(head==NULL)

{

head=n;

}

else

{

while(temp->ptr!=NULL)

{

temp=temp->ptr;

}

temp->ptr=n;

}

}

void insertInBtw(int val,int pos)

{

node \*n=new node(val);

node \*temp=head;

for(int i=1;i<pos;i++)

{

temp=temp->ptr;

}

n->ptr=temp->ptr;

temp->ptr=n;

}

void display()

{

node \*temp=head;

while(temp!=NULL)

{

cout<<temp->a<<"->";

temp=temp->ptr;

}

cout<<"NULL"<<endl;

}

void insertFront(int val)

{

node \*n=new node(val);

n->ptr=head;

head=n;

}

int main()

{

insertLast(1);

insertLast(2);

insertLast(3);

insertLast(4);

insertLast(5);

display();

insertFront(6);

display();

insertFront(9);

display();

insertInBtw(4,3);

display();

insertInBtw(7,2);

display();

return 0;

}

**DELETION IN LINKED LIST**

**void DeleteatFront()**

{

node \*temp=head;

cout<<temp->a<<endl<<"node is deleted!!!\n";

head=head->ptr;

delete temp;

}

**void DeleteatEnd()**

{

node \*temp=head;

node \*p;

while(temp->ptr!=NULL)

{

p=temp;

temp=temp->ptr;

}

cout<<endl<<p->ptr->a<<endl<<"node is deleted!!!\n";

p->ptr=NULL;

delete temp;

}

**void DeleteatMid(int pos)**

{

node \*temp=head;

node \*p;

int i=1;

while(i<pos)

{

p=temp;

temp=temp->ptr;

i++;

}

cout<<endl<<p->ptr->a<<endl<<"node is deleted!!!\n";

p->ptr=temp->ptr;

delete temp;

}

**void DeleteatMid(int val)**

**{**

**node \*temp=head;**

**node \*p;**

**while(temp->ptr!=NULL)**

**{**

**if(temp->ptr->a!=val)**

**temp=temp->ptr;**

**}**

**temp->ptr=temp->ptr->ptr;**

**cout<<endl<<"node deleted!!!!\n";**

**delete temp;**

**}**