**IMPLEMENTATION OF DOUBLY LINKED LIST**

#include<stdio.h>

#include<stdlib.h>

struct node

{

int data;

struct node \*prev,\*next;

}\*head;

struct node \*getnode()

{

struct node \*newn;

newn=(struct node \*)malloc(sizeof(struct node));

newn->next=NULL;

return newn;

}

struct node \*createdll(int x)

{

struct node \*temp,\*p;

p=getnode();

p->data=x;

if(head==NULL)

{

head=p;

return head;

}

else

{

if(head->next==NULL)

{

head->next=p;

p->prev=head;

return head;

}

else

{

temp=head;

while(temp->next!=NULL)

{

temp=temp->next;

}

temp->next=p;

p->prev=temp;

return head;

}

}

}

void displayll()

{

struct node \*temp;

temp=head;

if(head==NULL)

{

printf("List is empty");

}

else

{

while(temp!=NULL)

{

printf("%d ",temp->data);

temp=temp->next;

}

}

}

void displayreverse()

{

struct node \*temp;

temp=head;

while(temp->next!=NULL)

{

temp=temp->next;

}

while(temp!=head)

{

printf("%d ",temp->data);

temp=temp->prev;

}

printf("%d ",head->data);

}

int main()

{

head=NULL;

int n;

for(int i=0;i<5;i++)

{

scanf("%d",&n);

head=createdll(n);

}

displayreverse();

printf("\n");

displayll();

}