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------------------------------------------------------------------------
Assignment Name: Program to Implement Stack using LL
Class: MCA I                                       Lab: CA Lab
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#include<conio.h>
#include<iostream.h>
#include<process.h>
class stack
{
      int info, ele;
      stack *node,*link,*top;
public:
      stack()
      {
            top=NULL;
      }
      void insert();
      void del();
      void dis();
};

void stack::insert()
{
      node=new stack;
      cout<<"\nEnter Info:";
      cin>>ele;
      node->info=ele;
      node->link=NULL;
      if(top==NULL)
      {
            top=node;
      }
      else
      {
            node->link=top;
            top=node;
      }
}
void stack::del()
{
      if(top==NULL)
      {
            cout<<"\n Underflow";
      }
      else
      {
            cout<<"\nDeleted Element is :"<<top->info;
            top=top->link;
      }
}

void stack::dis()
{
      stack *move;
      move=top;
      while(move!=NULL)
      {
            cout<<"\t"<<move->info;
            move=move->link;
      }
}

void main()
{
      clrscr();
      int ch;
      stack s;
      cout<<"\n1.Insert 2.Show 3.Delete 4.Exit";
      while(ch!=4)
      {
            cout<<"\nEnter Choice";
            cin>>ch;
            switch(ch)
            {
                  case 1: s.insert(); break;
                  case 2: s.dis(); break;
                  case 3: s.del(); break;
                  case 4:exit(0);
            }
      }
getch();
}
```

```
*/ Output */

1.Insert 2.Show 3.Delete 4.Exit
Enter Choice1

Enter Info:23

Enter Choice1

Enter Info:55

Enter Choice1

Enter Info:66

Enter Choice1

Enter Info:77

Enter Choice2
        77      66      55      23
Enter Choice3

Deleted Element is :77
Enter Choice2
        66      55      23
Enter Choice
```

Assignment Name: Perform Deletion in LL according to position & information

Class: MCA I   Lab: CA Lab   (DS)

```
#include<iostream.h>
#include<conio.h>
#include<process.h>

class node
{
	int info,item;
	node *link;
public:
	void insert();
	void dis();
	void del_info();
	void del_pos();
};
node *move,*start,*temp;

void node::insert()
{
	cout<<"\nEnter the item:";
	cin>>item;
	node *node1=new node;
	node1->link=NULL;
	node1->info=item;
	if(start==NULL)
		start=node1;
	else
	{
		move=start;
		while(move->link!=NULL)
		move=move->link;
		move->link=node1;
	}
}
void node::dis()
{
	node *x;
	x=start;
	while(x!=NULL)
	{
		cout<<"\t"<<x->info;
		x=x->link;
	}
}

void node::del_pos()
{
	int pos,f=0,c=0;
	node *p;
	cout<<"\nEnter Position:";
	cin>>pos;
	temp=start;
	if(start==NULL)
		cout<<"\nLL is empty\n";
	if(pos==1)
	{
		start=start->link;
		f=1;
	}
	while(temp!=NULL)
	{
		c++;
		p=temp;
		temp=temp->link;
		if(c==pos-1)
```

```
            {
                  f=1;
                  p->link=temp->link;
            }
      }
      if(f==0)
            cout<<"\n node is not found";
}

void node::del_info()
{
      int pos,f=0;
      node *p;
      cout<<"\nEnter the element:";
      cin>>item;
      temp=start;
      if(start==NULL)
            cout<<"\nLL is Empty:";
      if(start->info==item)
      {
            start=start->link;
            f=1;
      }
      while(temp!=NULL)
      {
            p=temp;
            temp=temp->link;
            if(temp->info==item)
            {
                  f=1;
                  p->link=temp->link;
            }
      }
      if(f==0)
            cout<<"\n node is not found";
}


void main()
{
      clrscr();
      node n;
      int ch;
      cout<<"\n1.Insert 2.Display 3.Del_position 4.Del_information 5.exit:\n";
      while(ch!=5)
      {
            cout<<"\nEnter choice";
            cin>>ch;
            switch(ch)
            {
                  case 1: n.insert(); break;
                  case 2: n.dis(); break;
                  case 3: n.del_pos(); break;
                  case 4: n.del_info(); break;
                  case 5: exit(0);
            }
      }
getch();
}

*/ Output */


1.Insert 2.Display 3.Del_position 4.Del_information 5.exit:
```

```
Enter choice1

Enter the item:10

Enter choice1

Enter the item:20

Enter choice1

Enter the item:-3

Enter choice2
        10      20      -3
Enter choice3

Enter Position:2

Enter choice2
        10      -3
Enter choice4

Enter the element:-3

Enter choice2
        10
Enter choice 5
```