LAB-08

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AIM:- Implement Stack using Linked List in C

Example:-

```
#include<stdio.h>
#include<conio.h>
struct node{
	int data;
	struct node *add;
};
struct node *start=NULL;
struct node *temp;
struct node *new1;
int top=-1;
void push(){
	int n;
	if (start==NULL){
		printf("Enter new Element for insert: ");
		scanf("%d",&n);
		new1=(struct node*)(malloc(sizeof(struct node)));
		new1->data=n;
		new1->add=NULL;
		start=new1;
```

```
        }
        else{
                printf("Enter new Element for insert: ");
                scanf("%d",&n);
                new1=(struct node*)(malloc(sizeof(struct node)));
                new1->data=n;
                new1->add=start;
                start=new1;
        }
}
void pop(){
        if (start==NULL)
        printf("List not found");
        else{
                temp=start;
                start=start->add;
                printf("Deleted Node is %d",temp->data);
                free(temp);
        }
}
void peep(){
        if(start==NULL){
        printf("List Not Found");
        }
        else{
                temp=start;
                while(temp!=NULL){
                        printf("%d\n",temp->data);
                        temp=temp->add;
```

```
                }
        }
}
int main()
{
        int choice;
        while(choice!=4){
        printf("\n-----STACK-----\n");
        printf("\n1.push\n2.pop\n3.display\n4.exit");
        printf("\n----------\n");
        printf("Enter your choice: ");
        scanf("%d",&choice);

        switch(choice)
        {
                case 1 :
                        push();
                        break;
                case 2 :
                        pop();
                        break;
                case 3 :
                        peep();
                        break;
                case 4 :
                   break;
      default :
        printf("Invalid choice\n");
        break;
```

```
        }
};

 return 0;
 }
```

```
-----STACK-----

1.push
2.pop
3.display
4.exit
----------
Enter your choice: 1
Enter new Element for insert: 10

-----STACK-----

1.push
2.pop
3.display
4.exit
----------
Enter your choice: 1
Enter new Element for insert: 20

-----STACK-----

1.push
2.pop
3.display
4.exit
----------
Enter your choice: 2
Deleted Node is 20
-----STACK-----

1.push
2.pop
3.display
4.exit
----------
Enter your choice: 3
10
```

```
-----STACK-----

1.push
2.pop
3.display
4.exit
----------
Enter your choice: 4

--------------------------------
Process exited after 8.543 seconds with return value 0
Press any key to continue . . .
```