STACK USING LINKED LIST

#include<stdio.h>

#include<stdlib.h>

Typedef struct node

{

Int data;

Struct node \*next;

}node;

Void push();

Void pop();

Void display();

Static node \*start=NULL;

Int main()

{

Int ch;

Do

{

Printf(“\n\n \*\*\*MAIN MENU\*\*\*”);

Printf(“\n 1:PUSH”);

Printf(“\n 2:POP”);

Printf(“\n 3:DISPLAY”);

Printf(“\n 4:EXIT”);

Printf(“\n\n Enter your option:”);

Scanf(“%d”,&ch);

Switch(ch)

{

Case 1:

Push();

Break;

Case 2:

Pop();

Break;

Case 3:

Display();

Break;

}

}while(ch!=4);

Return 0;

}

Void push()

{

Int val;

Struct node \*ptr=(struct node\*)malloc(sizeof(struct node));

If(ptr==NULL)

{

Printf(“Not able to push the element”);

}

Else

{

Printf(“Enter the value:”);

Scanf(“%d”,&val);

If(start==NULL)

{

Ptr->data=val;

Ptr->next=NULL;

Start=ptr;

}

Else

{

Ptr->data=val;

Ptr->next=start;

Start=ptr;

}

Printf(“\nItem Pushed”);

}

}

Void pop()

{

Int item;

Node \*ptr;

If(start==NULL)

{

Printf(“\nUNDERFLOW”);

}

Else

{

Item=start->data;

Ptr=start;

Start=start->next;

Free(ptr);

Printf(“%d Popped \n”,item);

}

}

Void display()

{

Node \*ptr;

Ptr=start;

If(ptr==NULL)

{

Printf(“\nStack Is Empty”);

}

Else

{

Printf(“\n\*\*\*STACK\*\*\*”);

While(ptr!=NULL)

{

Printf(“%d \n”,ptr->data);

Ptr=ptr->next;

}

}

}