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Stack Implementation using Linked list

Input:-

```
//  
PROGRAM  
TO  
IMPLEMENT  
STACKS  
USING LL  
  
#include <stdio.h>  
#include <stdlib.h>  
struct NODE  
{  
    int data;  
    struct NODE *link;  
};  
typedef struct NODE Node;  
Node *top, *new;  
void push()  
{  
    if (top == NULL)  
    {  
        top = (Node *)malloc(sizeof(Node));  
        printf("enter the element\n");  
        scanf("%d", &top->data);  
        top->link=NULL;  
        return;  
    }  
    else  
    {  
        new = (Node *)malloc(sizeof(Node));
```

```

new->link = top;
top = new;
printf("enter the element\n");
scanf("%d", &new->data);
return;
}
}
void pop()
{
if (top == NULL)
{
printf("Stack underflow\n");
return;
}
else
{
Node *temp = top;
printf("deleted: %d\n", top->data);
top = top->link;
free(temp);
}
}
void display()
{
if (top == NULL)
{
printf("stack underflow\n");
return;
}
else
{
Node *temp;
temp = top;
do
{
printf("%d\n", temp->data);
temp = temp->link;
} while (temp != NULL);
}
}
int main(){
int choice;
do{

```

```
printf("1.push\n2.pop\n3.display\n4.exit\n");
scanf("%d",&choice);
switch (choice)
{
case 1:
push();
break;
case 2:
pop();
break;
case 3:
display();
break;
case 4:
exit(0);
default:
printf("enter a valid chocie\n");
break;
}
}while(choice!=4);
return 0;
}
```

Output:-

```
input
1.push
2.pop
3.display
4.exit
1
enter the element
10
1.push
2.pop
3.display
4.exit
1
enter the element
20
1.push
2.pop
3.display
4.exit
1
enter the element
30
1.push
2.pop
3.display
4.exit
3
30
20
10
1.push
2.pop
3.display
4.exit
2
deleted: 30
1.push
2.pop
3.display
4.exit
3
20
10
1.push
2.pop
3.display
4.exit
4

...Program finished with exit code 0
Press ENTER to exit console.
```