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Lab 6	
Stack and Queue Implementation Using Linked	Liete .
# include < stdio.h>	· · · · · · · · · · · · · · · · · · ·
# include < stdlib.n>	
Struct Nodel	
unt data;	
struct Node * link;	
y ;	
typedef struct Node node;	the state of the state of the
1101-1	and a state of the
node *top = NULL;	No. of the state o
void push();	Top Tel
(pid pop ();	· · · · · · · · · · · · · · · · · · ·
	Assert & De
Void push () e	A" Maria
node * new 1 = (node *) malloc (size of	
if (news) == NNL) &	
printf("In Stack Overflow. In");	Marie Contract
neturn,	
J	
print ("In Enter Value do Push: ");	
2 (anf ("1-d", d news) -> data);	
nuel -> link=top;	The state of the s
γ = ruw);	

```
void pop ()e
      if (top == NULL) (
          print ("In Stack Underflow. In").
     printfl"I'm Popped Elment: "I of In", temp -> data);
     free (temp);
void displays tack () &
      if (top = = NULL) f
          printf ("In The Stack is Emply In");
      printf("In Elements in the Stack: ");
     node * temp = top;
     while (temp 1 = NULL) &
         printf("1.d", temp >/data);
         temp = temp > link;
     printf("In");
node * front = NULL , * rear = NULL;
Void display Owene ();
```

		PAGE NO :
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	void insert() f	
	if (new) == Nurl) of (new) == Nurl) of	1.
	if (new) == NULL) ((Sized (node));	
	print ("In fruew Full. In");	
	return;	
	printf ("In Enter Value 1 4	
	printf ("In Enter Value to Insert; ").	
	Scanf("1.d", Snews -> data);	Is a second
	new 1 -> link = NULL;	
	of (run == NULL) f	
	rear = New 1;	N4 /. :
	return,	
	rear -> link = new 1;	90 - 1 - 4 - 1
	rear = new 1;	· · · · · · · · · · · · · · · · · · ·
		s ni
	0	
*	void dul() (
	if (front = = NULL) {	
	printf("In hueu Engly. In");	
	return;	8.
	3	
	node * temp = front;	îa -
	printf ("In Deleted Element: 1.d In ", temp -> d	ata):
	front = front -> link;	,
	if (front == NULL) ?	
	rean= pull;	
	3	
	free (temp);	
	3	
		7

void diplay fruenc () &
void display brush to NULL) of if (prost == NULL) of Buene is Emply. In "); print t (") n The Buene is Emply. In ");
print
neturn,
printf ("In Elements in the Queue: ");
print (" Elements in the Quelle ") node * temp = front;
unile (temp!=NULL) { while (temp!=NULL) { temp = 7 data);
while (temp 1 = NULL)
print (17.a., ta)
temp=temp=>link;
3
printf("In");
1 Jane
11 Main
Void main () f
int ch;
while (1) of
printf ("In J. Push (Stack) In 2. Pop (Stack) In 3. display (Stack)"
printf(" In 4. Insert (Auen) In 5. Delete (Auene) Inb. Display
(Buen) Nit- Knit ");
printf("In Entry Your Chaice: ");
scanf ("1.d", &ch);
switch (ch) of
cose 1: push (); 1 = 1 = 1 = 1 = 1
lereak; man sin a san a san a
 Case 2: pop();
buck;
case 3: displaytach();
lneak;
 case 4: visent();
Jrugh;

		,			7
			PAGE NO :		
	cose 5: dul();				
	buak;	- \		,	
	case 6: display Anne:		<u>, , , , , , , , , , , , , , , , , , , </u>	e 6	
	brok;				
	case 7: exit(0);	-1	, I		
	default:	1 1		77.	
	Q .				
	grintfl'Enter Your Choice: In");	ş (),	{		,
	3		, a	1	
	3				
		1			
	Output	1		· ·	
	1. Push (Stack)				
	2. Pop (Stack)	A Company		7 A	
	3. Display (Stack)		d	i ·	
	4. Insert (Ouen)				
	5. Delete (Breene)	t (1)			*
		37.1	1 100	, al	
	6. Display (Oruene)				
	Enter Your Choice: 1	at Ib	-ac-4	4	
	Enter Value to Push: 10	d d	V 14		
	1				~
	Enter Your Choice: 1				
	Enter Value to Push: 20	rij.		7	
-)	Enter Your Choice: 1	e ,		· · ·	
	Enter Value to Push: 36	1.5			
7	Enter Your Charice: 1			×, *	
	Enter Value to Push: 40		ja .	•	
7	Enter Your Charce: 3			,	
	Elements in the Stack: 40 30 20 10				

	Charles 1-2
-	Enter Your attack
	Popped Element: 40
	, 1 1
1	Enter Your Chaic: 2
	Popped Edement: 30
	45.45.45
	Enter Your Choice: 3
-	Enter Your Charle: 20 10
	Kliments
	4
7	Enter Your Chaice: 4
	Enter Value to Insert: 10
	Graffe and the
7	Enter Your Charics: 4
	Forter Value to Insert: 20
2	Enter Your Chaice: 4
	Futur Value to Insert: 30
٦	Enter Your Chaire: 4
	Enter Value to Sweet: 40
700 -7	Enter Your Choice: 6
	Elements in the Queue: 10 20 30 40.
3/2/024	MULTINIS IN A SIGNATURE !
1/2/	5 N 01 200 5
51///	Entry Your Chaire: 5
	Deleted Element: 10
7	Enter Your Charge: 65
	Deleted Element: 20
-7	Kntu Your Choice: 6
	Elements in the augus: 30 40