

LOOKING TO LEARN PROGRAMMING?

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```
main.c
1 #include<stdio.h>
2 #include<stdlib.h>
3 struct node
4 {
5     int data;
6     struct node *next;
7 };
8 struct node *front;
9 struct node *rear;
10 void insert();
11 void delete();
12 void display();
13 void main ()
14 {
15     int choice;
16     while(choice != 4)
17     {
18         printf("\n*****Main Menu*****\n");
19         printf("1.Insert an element\n");
20         printf("2.Delete an element\n");
21         printf("3.Display the queue\n");
22         printf("4.Exit\n");
23         scanf("%d", &choice);
24         switch(choice)
25         {
26             case 1:
27                 insert();
28                 break;
29             case 2:
30                 delete();
31                 break;
32             case 3:
33                 display();
34                 break;
35             case 4:
36                 exit(0);
37             break;
38         default:
39     }
40 }
```

23

Value Inserted

```
*****Main Menu*****
[REDACTED]
=====
1.insert an element
2.Delete an element
3.Display the queue
4.Exit
```

3445

```
Enter your choice ?1
Enter the element
3445
Value inserted
*****Main Menu*****
[REDACTED]
=====
1.insert an element
2.Delete an element
3.Display the queue
4.Exit
```

12

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Type here to search



Programiz

C Online Compiler

main.c

```
39    }
40 }
41 }
42 void insert()
43 {
44     struct node *ptr;
45     int item;
46
47     ptr = (struct node *) malloc (sizeof(struct node));
48     if(ptr == NULL)
49     {
50         printf("\nOVERFLOW\n");
51         return;
52     }
53     else
54     {
55         printf("\nEnter value?\n");
56         scanf("%d",&item);
57         ptr->data = item;
58         if(front == NULL)
59         {
60             front = ptr;
61             rear = ptr;
62         }
63         else
64         {
65             rear->next = ptr;
66         }
67         rear->next = ptr;
68         rear = ptr;
69         rear->next = NULL;
70     }
71 }
72 }
73 void delete ()
74 {
75     struct node *ptr;
```

Run

Output

▲ 23

Value Inserted

*****Main Menu*****

1.Insert an element
2.Delete an element
3.Display the queue
4.Exit

Enter your choice ?1

Enter the element

3445

Value inserted

*****Main Menu*****

1.Insert an element
2.Delete an element
3.Display the queue
4.Exit

Enter your choice ?3

printing values

12

12

23

3445

*****Main Menu*****

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main.c

```

68     rear = ptr;
69     rear->next = NULL;
70 }
71 }
72 }

73 void delete ()
74 {
75     struct node *ptr;
76     if(front == NULL)
77     {
78         printf("\nUNDERFLOW\n");
79         return;
80     }
81     else
82     {
83         ptr = front;
84         front = front -> next;
85         free(ptr);
86     }
87 }

88 void display()
89 {
90     struct node *ptr;
91     ptr = front;
92     if(front == NULL)
93     {
94         printf("\nEmpty queue\n");
95     }
96     else
97     {
98         printf("\nprinting values ..... \n");
99         while(ptr != NULL)
100     {
101         printf("\n%d\n",ptr -> data);
102         ptr = ptr -> next;
103     }
104 }

```

Output

23

Value inserted

Main Menu

- 1. Insert an element
- 2. Delete an element
- 3. Display the queue
- 4. Exit

Enter your choice ?1

Enter the element

3445

Value inserted

*****Main Menu*****

=====
1. Insert an element
2. Delete an element
3. Display the queue
4. Exit

Enter your choice ?3

printing values

23

=====
1. Insert an element
2. Delete an element
3. Display the queue
4. Exit

Enter your choice ?3
printing values

=====
1. Insert an element
2. Delete an element
3. Display the queue
4. Exit

Enter your choice ?3
printing values

=====
1. Insert an element
2. Delete an element
3. Display the queue
4. Exit

Enter your choice ?3
printing values

=====
1. Insert an element
2. Delete an element
3. Display the queue
4. Exit

Enter your choice ?3
printing values

=====
1. Insert an element
2. Delete an element
3. Display the queue
4. Exit

=====
1. Insert an element
2. Delete an element
3. Display the queue
4. Exit