



## CODERS HOME

Learn Html, Learn Css, Learn Java Script, Learn C language, Learn C++ Language, Best Ways To learn Coding At Home, Learn Coding At home, How To learn coding free, learn coing from scrach, Best websites to learn Coding free, Learn Python SQL Ruby Php etc coding languages at Home,

HOME

December 05, 2021

## LINEAR QUEUE IMPLEMENTATION

---

```
1. /*
2. Linear Queue Impmelaintaction
3. */
4.
5. #include<stdio.h>
6. #define N 5
7.
8. int queue[N];
9. int front=-1, rear=-1;
10.
11. void enqueue();
12. void deque();
13. void display();
14. void peek();
15.
16. int main(){
17.     int choice;
18.     do{
19.         printf("\n***Queue Operations***\n");
20.         printf("1. Enque\n");
21.         printf("2. Deque\n");
22.         printf("3. Peek\n");
23.         printf("4. Display\n");
24.         printf("0 To Exit\n");
25.         printf("Enter Choice");
26.         scanf("%d",&choice);
27.         switch(choice){
28.             case 1:
```

```

29.             enqueue();
30.             break;
31.             case 2:
32.                 deque();
33.                 break;
34.             case 3:
35.                 peek();
36.                 break;
37.             case 4:
38.                 display();
39.                 break;
40.             default:
41.                 printf("\n!!Wrong choice!!\n");
42.             }
43.         }while(choice!=0);
44.         return 0;
45. }
46.
47. void enqueue(){
48.     int x;
49.     if(rear==N-1){
50.         printf("\noverflow\n");
51.     }
52.     else if(front==-1 && rear==-1){
53.         front++;
54.         rear++;
55.         printf("Enter x ");
56.         scanf("%d",&x);
57.         queue[rear]=x;
58.     }
59.     else{
60.         rear++;
61.         printf("Enter x ");
62.         scanf("%d",&x);
63.         queue[rear]=x;
64.     }
65. }
66.
67. void deque(){
68.     if(front==-1&&rear==-1){
69.         printf("\nQueue is Empty\n");
70.     }
71.     else if(front==rear){

```

```

72.         front=rear=-1;
73.         printf("\nDeleted successfully\n");
74.     }
75.     else{
76.         front++;
77.         printf("\nDeleted successfully\n");
78.     }
79. }
80.
81. void peek(){
82.     if(front== -1 && rear== -1){
83.         printf("\n Queue is Empty\n");
84.     }
85.     else{
86.         printf("%d",queue[front]);
87.     }
88. }
89.
90. void display(){
91.     int i;
92.     if(front== -1 && rear== -1){
93.         printf("\nQueue is Empty\n");
94.     }
95.     else{
96.         for(i=front;i<=rear;i++){
97.             printf("%d ",queue[i]);
98.         }
99.     }
100. }

```

## OUTPUT

```

***Queue Operations**
1. Enque
2. Deque
3. Peek
4. Display
0 To Exit
Enter Choice_

```