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Activities Text Editor Jul 24 14:49
Open rucs.c Save
1 #include <stdio.h>
2 int Q[100], FRONT = -1, REAR = -1, i, n, x, choice;
3 void insert();
4 void delete();
5 void display();
6
7 void main()
8 {
9     printf("\t Implementation of Queue \n");
10    printf("Enter the size of Queue (Maximum size = 100): ");
11    scanf("%d", &n);
12    do
13    {
14        printf("\n Operation of queue: \n");
15        printf("\t1.Insert \t2.Delete \t3.Display \t4.Exit \n");
16        printf("\n Enter your choice: ");
17        scanf("%d", &choice);
18        switch (choice)
19        {
20            case 1:
21                insert();
22                break;
23            case 2:
24                delete();
25                break;
26            case 3:
27                display();
28                break;
29            case 4:
30                printf("Exit: Program Finished !! ");
31                break;
32            default:
33                printf("Please enter a valid choice 1, 2, 3, 4 \n");
34                break;
35        }
36    } while (choice != 4);
37 }
38
39 // Function to INSERT element
40 void insert()
41 {
42     if (REAR >= n - 1)
43     {
44         printf(" Queue Overflow ! \n");
45     }
46 }
```

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Open rucs.c Save
46 {
47     printf(" Enter the element to insert: ");
48     scanf("%d", &x);
49     REAR++;
50     Q[REAR] = x;
51     if (FRONT == -1)
52     {
53         FRONT = 0;
54     }
55 }
56
57 // Function to DELETE element
58 void delete ()
59 {
60     if (FRONT == -1)
61     {
62         printf(" Queue Underflow ! \n");
63     }
64     else
65     {
66         printf(" The deleted element is: %d \n", Q[FRONT]);
67         if (FRONT == REAR)
68             FRONT = REAR = -1;
69         else
70             FRONT++;
71     }
72 }
73 // Function to DISPLAY Queue
74 void display()
75 {
76     if (REAR < 0)
77     {
78         printf(" Queue is empty ! \n");
79     }
80     else
81     {
82         printf(" The elements in the Queue are: \n");
83         for (i = FRONT; i < n; i++)
84         {
85             printf("%d ", Q[i]);
86         }
87         printf("\n");
88     }
89 }
```

C Tab Width: 8 Ln 38, Col 1 INS

```
Activities Terminal Jul 24 14:49 dl0414@itadmin: ~
dl0414@itadmin:~$ gcc rucs.c
dl0414@itadmin:~$ ./a.out rucs.c
Implementation of Queue
Enter the size of Queue (Maximum size = 100): 10

Operation of queue:
1.Insert      2.Delete      3.Display      4.Exit

Enter your choice: 1
Enter the element to insert: 4

Operation of queue:
1.Insert      2.Delete      3.Display      4.Exit

Enter your choice: 2
The deleted element is: 4

Operation of queue:
1.Insert      2.Delete      3.Display      4.Exit

Enter your choice: 3
Queue is empty !

Operation of queue:
1.Insert      2.Delete      3.Display      4.Exit

Enter your choice: 4
Exit: Program Finished !! dl0414@itadmin:~$
```