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C: > Users > Dell > Desktop > Go > C exp2dsa.c > display()
1 // Implementation of Queue using Array
2 #include<stdio.h>
3 int Q[100], FRONT = -1, REAR = -1, i, n, x, choice;
4 void insert();
5 void delete();
6 void display();
7
8 void main() {
9     printf("Welcome to Implementation of Queue using Array !");
10    printf("\n Enter the size of Queue (Maximum size = 100): ");
11    scanf("%d",&n);
12    do {
13        printf("\n Queue Operation available: ");
14        printf("\n \t1. Insert \t2. Delete \t3. Display \t4. Exit ");
15        printf("\n Enter your choice: ");
16        scanf("%d",&choice);
17        switch (choice) {
18            case 1:
19                insert();
20                break;
21            case 2:
22                delete();
23                break;
24            case 3:
25                display();
26                break;
27            case 4:
28                printf("\nProgram Finished !");
29                break;
30            default:
31                printf("\n Please enter a valid choice (1, 2, 3, 4)");
32                break;
33        }
34    } while(choice != 4);
35
36 }
37

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38 // Function to insert element
39 void insert() {
40     if (REAR >= n - 1) {
41         printf("\n Queue Overflow");
42     }
43     else {
44         printf("\n Enter the element to insert: ");
45         scanf("%d",&x);
46         REAR++;
47         Q[REAR] = x;
48         if (FRONT == -1) {
49             FRONT = 0;
50         }
51     }
52 }
53 // Function to delete element
54 void delete() {
55     if (FRONT == -1) {
56         printf("\n Queue is underflow");
57     }
58     else {
59         printf("\n The deleted element is : %d", Q[FRONT]);
60         if (FRONT == REAR) {
61             FRONT = REAR = - 1;
62         }
63         else {
64             FRONT++;
65         }
66     }
67 }

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68 // Function to display queue
69 void display() {
70     if (REAR < 0) {
71         printf("\n Queue is empty");
72     }
73     else {
74         printf("\n The elements in the queue are: \n");
75         for (i = FRONT; i < n; i++) {
76             printf(" %d \n",Q[i]);
77         }
78     }
79 }
80 }

```

```
Welcome to Implementation of Queue using Array !
Enter the size of Queue (Maximum size = 100): 3

Queue Operation available:
    1. Insert    2. Delete    3. Display    4. Exit
Enter your choice: 1

Enter the element to insert: 1

Queue Operation available:
    1. Insert    2. Delete    3. Display    4. Exit
Enter your choice: 1

Enter the element to insert: 2

Queue Operation available:
    1. Insert    2. Delete    3. Display    4. Exit
Enter your choice: 1

Enter the element to insert: 3

Queue Operation available:
    1. Insert    2. Delete    3. Display    4. Exit
Enter your choice: 3

The elements in the queue are:
1
2
3
```

```
Queue Operation available:
    1. Insert    2. Delete    3. Display    4. Exit
Enter your choice: 2

The deleted element is : 1
Queue Operation available:
    1. Insert    2. Delete    3. Display    4. Exit
Enter your choice: 2

The deleted element is : 2
Queue Operation available:
    1. Insert    2. Delete    3. Display    4. Exit
Enter your choice: 3

The elements in the queue are:
3

Queue Operation available:
    1. Insert    2. Delete    3. Display    4. Exit
Enter your choice: 4

Program Finished !
```