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Help

Queue.c - C language - Visual Studio Code

EXPLORER

OPEN EDITORS

C Queue.c Compet...

C LANGUAGE

.vscode

launch.json

tasks.json

Competition

DSA

LinkD_List.c

LinkD_List.exe

LinkD_RList.c

LinkD_RList.exe

Queue.c

Queue.exe

recur_LinkD.c

recur_LinkD.exe

Stack_LL.c

Stack_LL.exe

Stack.c

Stack.exe

Anagram.c

Anagram.exe

Assignment_1.exe

HCF.c

HCF.exe

LCM.exe

Sequence.c

String.c

Try.exe

File

PVScode

Sem1

Sem2

Sem3

OUTLINE

Competition > DSA > C Queue.c > dequeue(Queue *)

1

#include <stdio.h>

2

#include <stdlib.h>

3

typedef struct mem

4

{

5

int *arr;

6

int top;

7

int rear;

8

int n;

9

}Queue;

10

Queue *Q;

11

Queue *ini(Queue *Que)

12

{

13

printf("Enter the size of Queue\n");

14

scanf("%d",&(Que->n));

15

printf("%d",Que->n);

16

Que->arr = (int*)malloc(sizeof(int));

17

Que->rear = -1;

18

Que->top = -1;

19

}

20

Queue *enqueue(Queue *Que)

21

{

22

if(Que->rear == Que->n)

23

printf("Queue OVERFLOW\n");

24

else

25

{

26

int t;

27

printf("Enter a number\n");

28

scanf("%d",&t);

29

if(Que->top == -1)

30

Que->top = 0;

31

(Que->rear)++;

32

Que->arr[Que->rear] = t;

33

printf("PUSHED : %d at %d",Que->arr[Que->rear],Que->rear);

34

Que->arr = realloc(Que->arr, Que->rear+1);

35

}

36

}

37

Queue *dequeue(Queue *Que)

38

{

39

if(Que->top == Que->rear)

40

printf("Queue EMPTY\n");

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

Code

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Microsoft Windows [Version 10.0.19043.1237]
(c) Microsoft Corporation. All rights reserved.

E:\C language>cd "e:\C language\Competition\DSA\" && gcc Queue.c -o Queue && "e:\C language\Competition\DSA\Queue
Enter the size of Queue
3
3
Enter 1 to Input to the Queue
Enter 2 to Delete from Queue
Enter 3 to Print the Queue
Enter -1 to RESET QUEUE
Enter 0 to Stop
1
Enter a number
1
PUSHED : 1 at 0
Enter 1 to Input to the Queue
Enter 2 to Delete from Queue
Enter 3 to Print the Queue
Enter -1 to RESET QUEUE
Enter 0 to Stop
1
Enter a number
2
PUSHED : 2 at 1
Enter 1 to Input to the Queue
Enter 2 to Delete from Queue
Enter 3 to Print the Queue
Enter -1 to RESET QUEUE
Enter 0 to Stop
1
Enter a number
3
PUSHED : 3 at 2
Enter 1 to Input to the Queue
Enter 2 to Delete from Queue
Enter 3 to Print the Queue
Enter -1 to RESET QUEUE
Enter 0 to Stop
2
POPPED : 1 from 0

Activate Windows
Go to Settings to activate Windows.

Enter 1 to Input to the Queue
Enter 2 to Delete from Queue

Ln 42, Col 6

Spaces: 4

UTF-8

CRLF

C

Win32

08:46 PM

01-10-2021

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OUTLINE

Queue.c

Competition > DSA > Queue.c > dequeue(Queue *)

```
35 }
36 }
37 Queue *dequeue(Queue *Que)
38 {
39     if(Que->top == Que->rear)
40         printf("Queue EMPTY\nRESET QUEUE\n");
41     else
42     {
43         printf("POPPED : %d from %d\n",Que->arr[Que->top],Que->top);
44         (Que->top)++;
45     }
46 }
47 Queue display(Queue *Que)
48 {
49     for(int i = Que->top; i<=Que->rear; i++)
50         printf("%d ",Que->arr[i]);
51 }
52 int main()
53 {
54     Q = (Queue*)malloc(sizeof(Queue));
55     ini(Q);
56     int p = -2;
57     while (p != 0)
58     {
59         printf("\nEnter 1 to Input to the Queue\n");
60         printf("Enter 2 to Delete from Queue\n");
61         printf("Enter 3 to Print the Queue\n");
62         printf("Enter -1 to RESET QUEUE\n");
63         printf("Enter 0 to Stop\n");
64         scanf("%d", &p);
65         switch (p)
66         {
67             case 1:
68                 enqueue(Q);
69                 break;
70             case 2:
71                 dequeue(Q);
72                 break;
73             case 3:
74                 display(Q);
```

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Enter the size of Queue

3

3

Enter 1 to Input to the Queue

Enter 2 to Delete from Queue

Enter 3 to Print the Queue

Enter -1 to RESET QUEUE

Enter 0 to Stop

1

Enter a number

1

PUSHED : 1 at 0

Enter 1 to Input to the Queue

Enter 2 to Delete from Queue

Enter 3 to Print the Queue

Enter -1 to RESET QUEUE

Enter 0 to Stop

1

Enter a number

2

PUSHED : 2 at 1

Enter 1 to Input to the Queue

Enter 2 to Delete from Queue

Enter 3 to Print the Queue

Enter -1 to RESET QUEUE

Enter 0 to Stop

1

Enter a number

3

PUSHED : 3 at 2

Enter 1 to Input to the Queue

Enter 2 to Delete from Queue

Enter 3 to Print the Queue

Enter -1 to RESET QUEUE

Enter 0 to Stop

2

POPPED : 1 from 0

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Sem3

OUTLINE

Competition > DSA > Queue.c > dequeue(Queue *)

46

}

47

Queue display(Queue *Que)

48

{

49

for(int i = Que->top; i<=Que->rear; i++)

50

printf("%d ",Que->arr[i]);

51

}

52

int main()

53

{

54

Q = (Queue*)malloc(sizeof(Queue));

55

ini(Q);

56

int p = -2;

57

while (p != 0)

58

{

59

printf("\nEnter 1 to Input to the Queue\n");

60

printf("Enter 2 to Delete from Queue\n");

61

printf("Enter 3 to Print the Queue\n");

62

printf("Enter -1 to RESET QUEUE\n");

63

printf("Enter 0 to Stop\n");

64

scanf("%d", &p);

65

switch (p)

66

{

67

case 1:

68

enqueue(Q);

69

break;

70

case 2:

71

dequeue(Q);

72

break;

73

case 3:

74

display(Q);

75

break;

76

case -1 :

77

ini(Q);

78

break;

79

case 0:

80

continue;

81

default:

82

printf("INVALID CHOICE\n");

83

}

84

}

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

Code

Enter 0 to Stop

2

POPPED : 1 from 0

Enter 1 to Input to the Queue

Enter 2 to Delete from Queue

Enter 3 to Print the Queue

Enter -1 to RESET QUEUE

Enter 0 to Stop

3

2 3

Enter 1 to Input to the Queue

Enter 2 to Delete from Queue

Enter 3 to Print the Queue

Enter -1 to RESET QUEUE

Enter 0 to Stop

2

POPPED : 2 from 1

Enter 1 to Input to the Queue

Enter 2 to Delete from Queue

Enter 3 to Print the Queue

Enter -1 to RESET QUEUE

Enter 0 to Stop

2

Queue EMPTY

RESET QUEUE

Enter 1 to Input to the Queue

Enter 2 to Delete from Queue

Enter 3 to Print the Queue

Enter -1 to RESET QUEUE

Enter 0 to Stop

-1

Enter the size of Queue

5

5

Enter 1 to Input to the Queue

Enter 2 to Delete from Queue

Enter 3 to Print the Queue

Enter -1 to RESET QUEUE

Enter 0 to Stop

0

Activate Windows

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e:\C language\Competition\DSA>

0 0 0

Ln 42, Col 6

Spaces: 4

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Competition > DSA > **C** Queue.c >  dequeue(Queue *)

```
47 Queue display(Queue *Que)
```

48 {

OUTLINE

```
Enter 1 to Input to the Queue
Enter 2 to Delete from Queue
Enter 3 to Print the Queue
Enter -1 to RESET QUEUE
Enter 0 to Stop
-1
Enter the size of Queue
5
5
Enter 1 to Input to the Queue
Enter 2 to Delete from Queue
```

Activate Windows

Enter 1 to Input to the Queue
Enter 2 to Delete from Queue