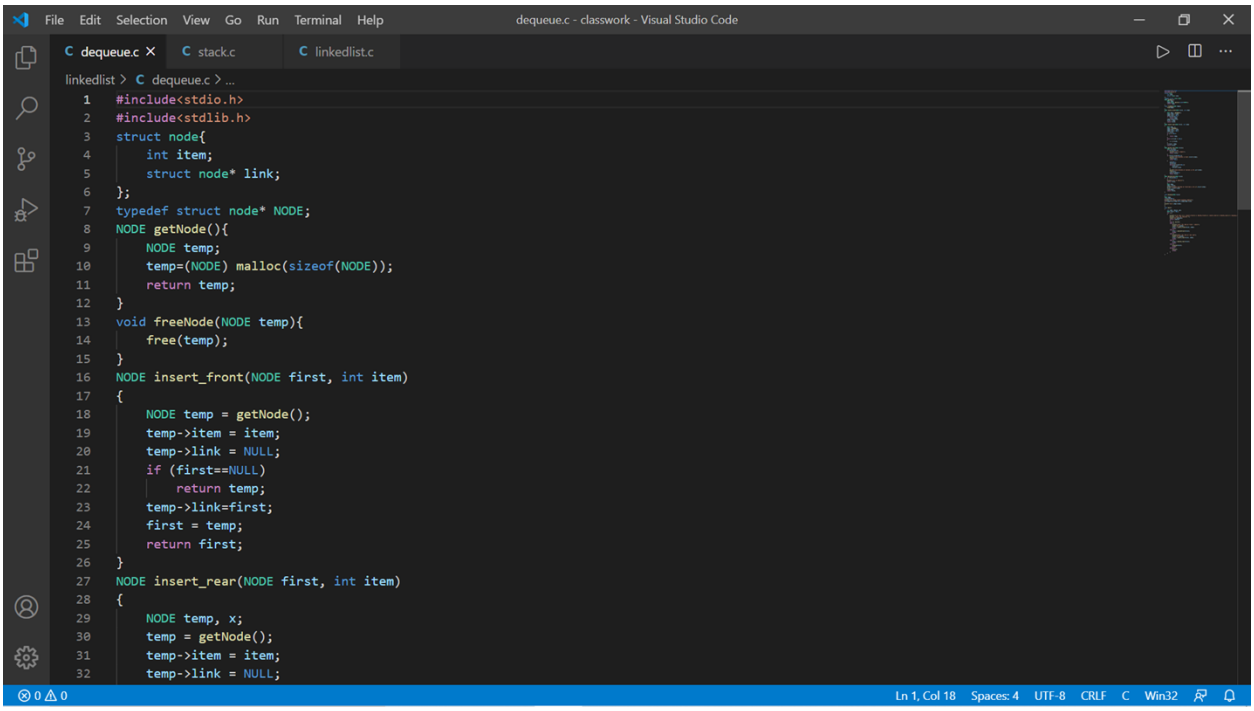
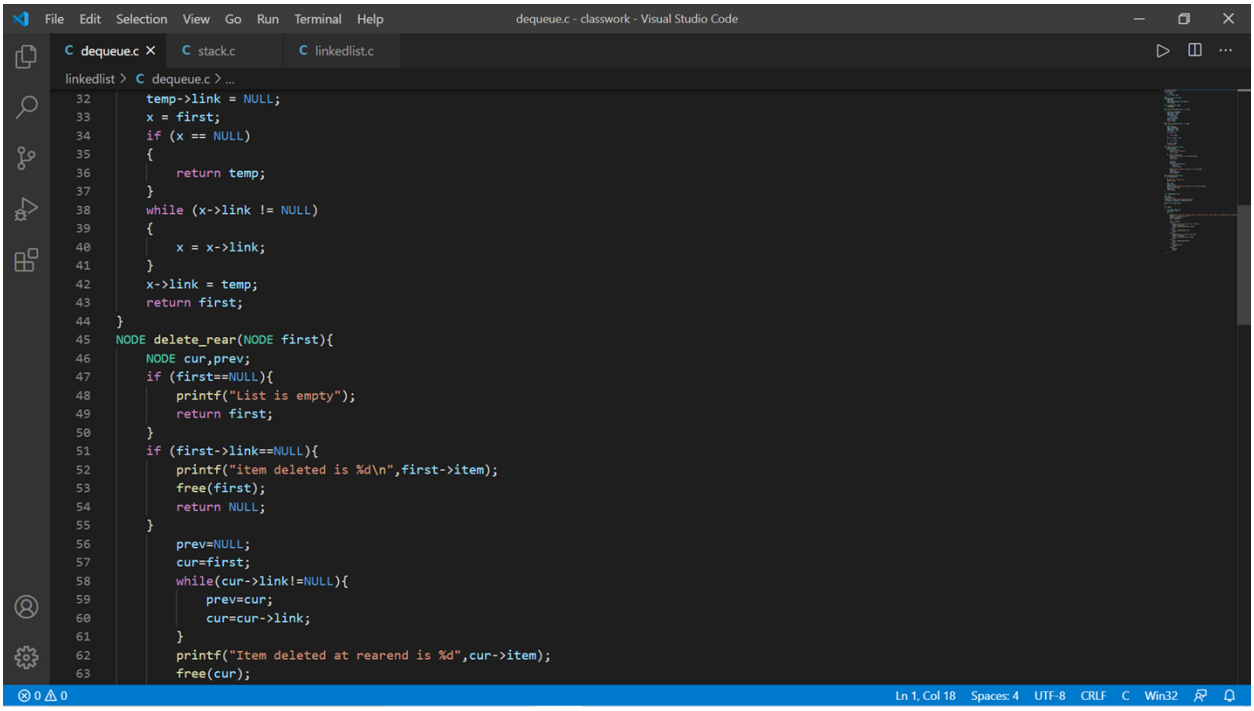
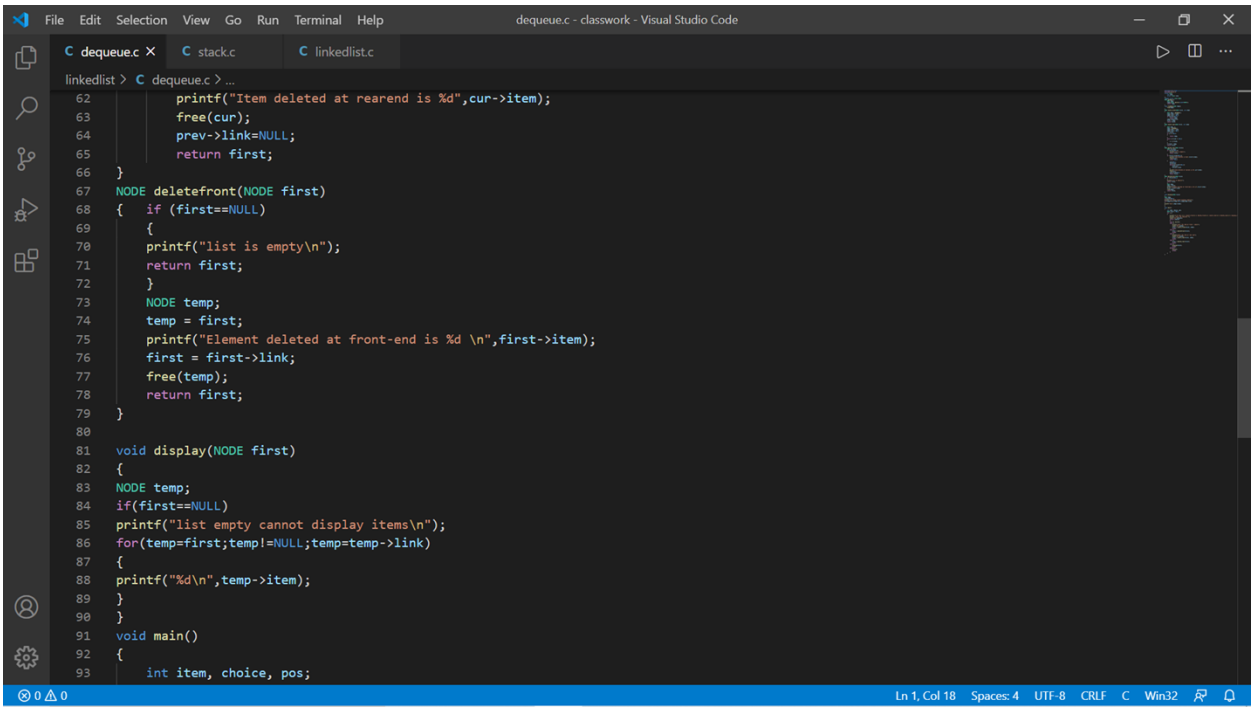
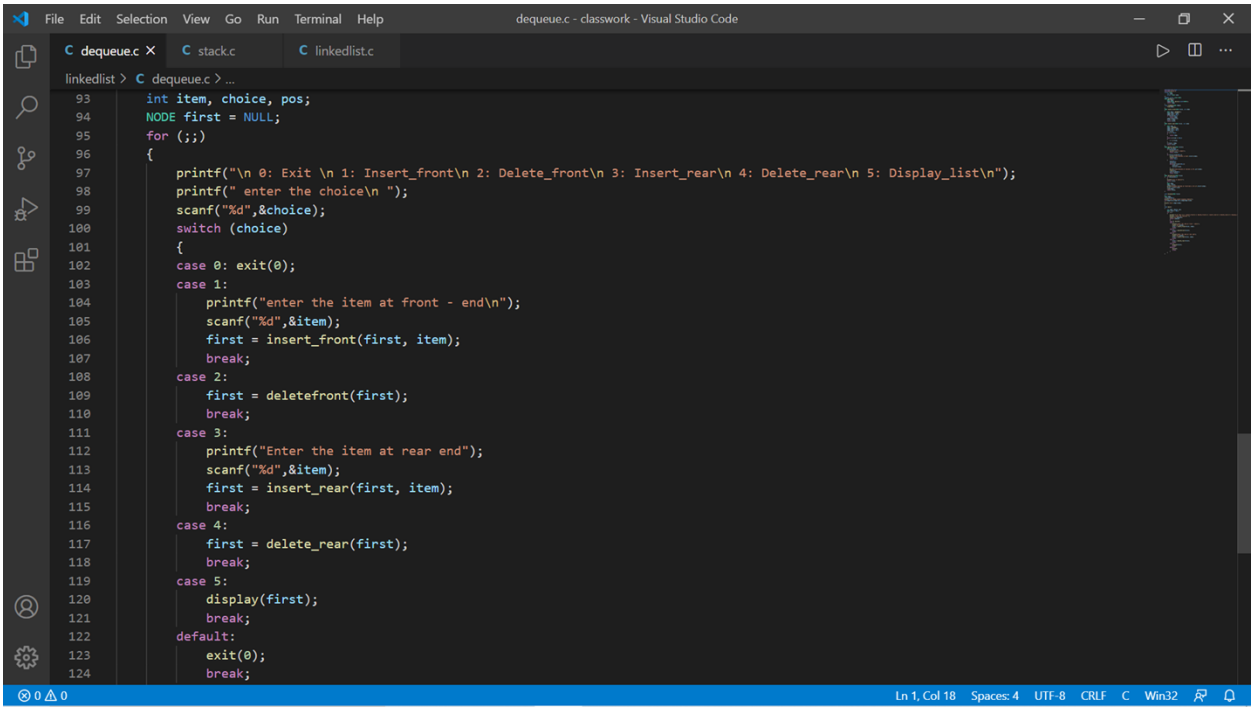
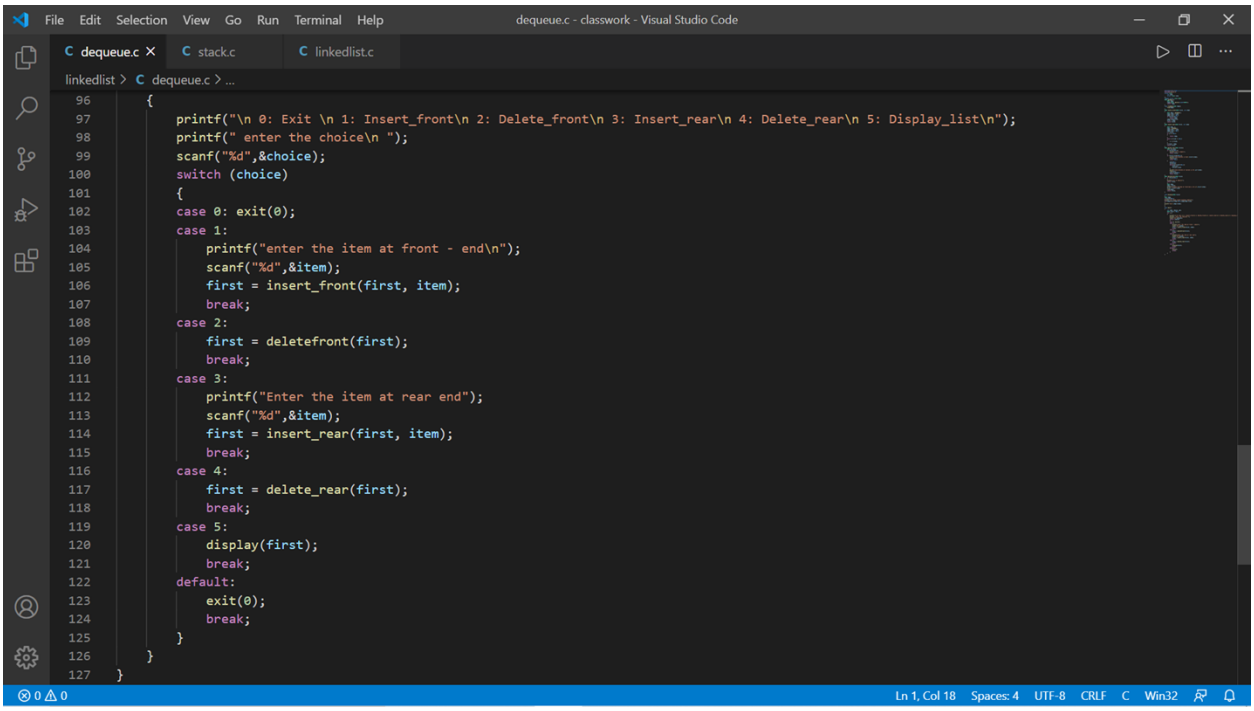
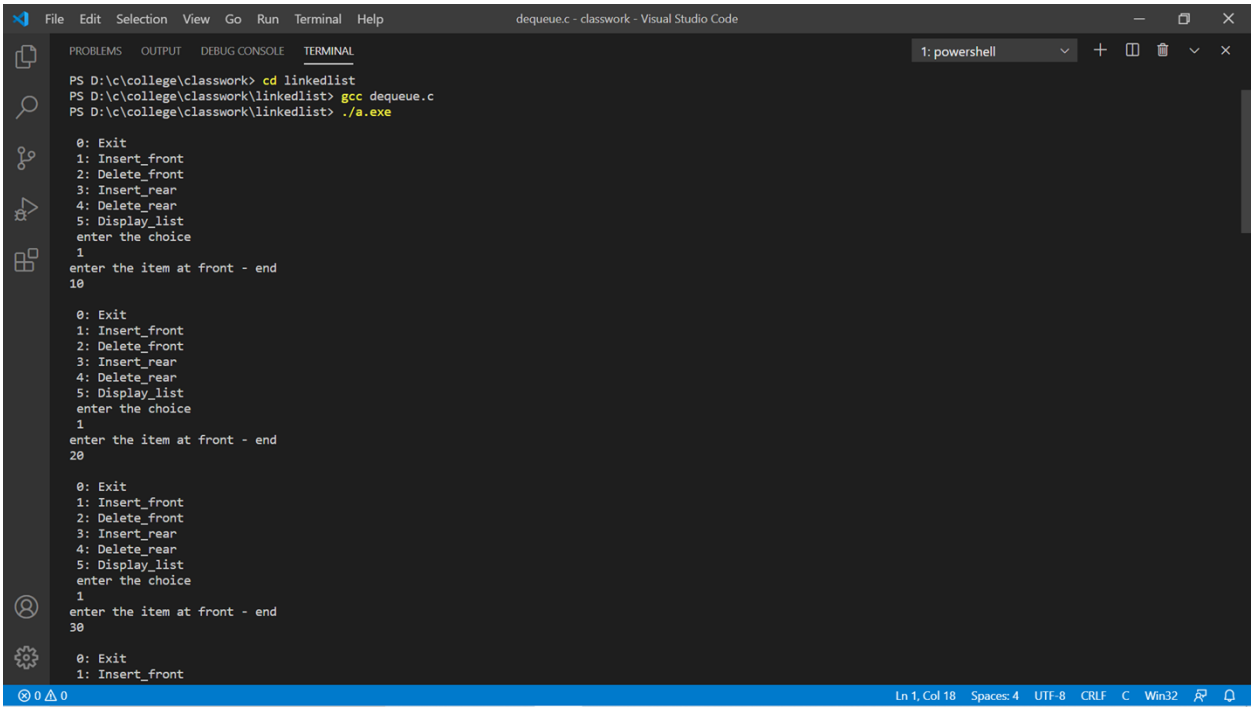

File Edit Selection View Go Run Terminal Help
dequeue.c - classwork - Visual Studio Code
dequeue.c
stack.c
linkedlist.c
linkedlist > dequeue.c > ...
#include<stdio.h>
#include<stdlib.h>
struct node{
int item;
struct node* link;
};
typedef struct node* NODE;
NODE getNode(){
NODE temp;
temp=(NODE) malloc(sizeof(NODE));
return temp;
}
void freeNode(NODE temp){
free(temp);
}
NODE insert_front(NODE first, int item)
{
NODE temp = getNode();
temp->item = item;
temp->link = NULL;
if (first==NULL)
return temp;
temp->link=first;
first = temp;
return first;
}
NODE insert_rear(NODE first, int item)
{
NODE temp, x;
temp = getNode();
temp->item = item;
temp->link = NULL;
0 0
Ln 1, Col 18 Spaces: 4 UTF-8 CRLF C Win32

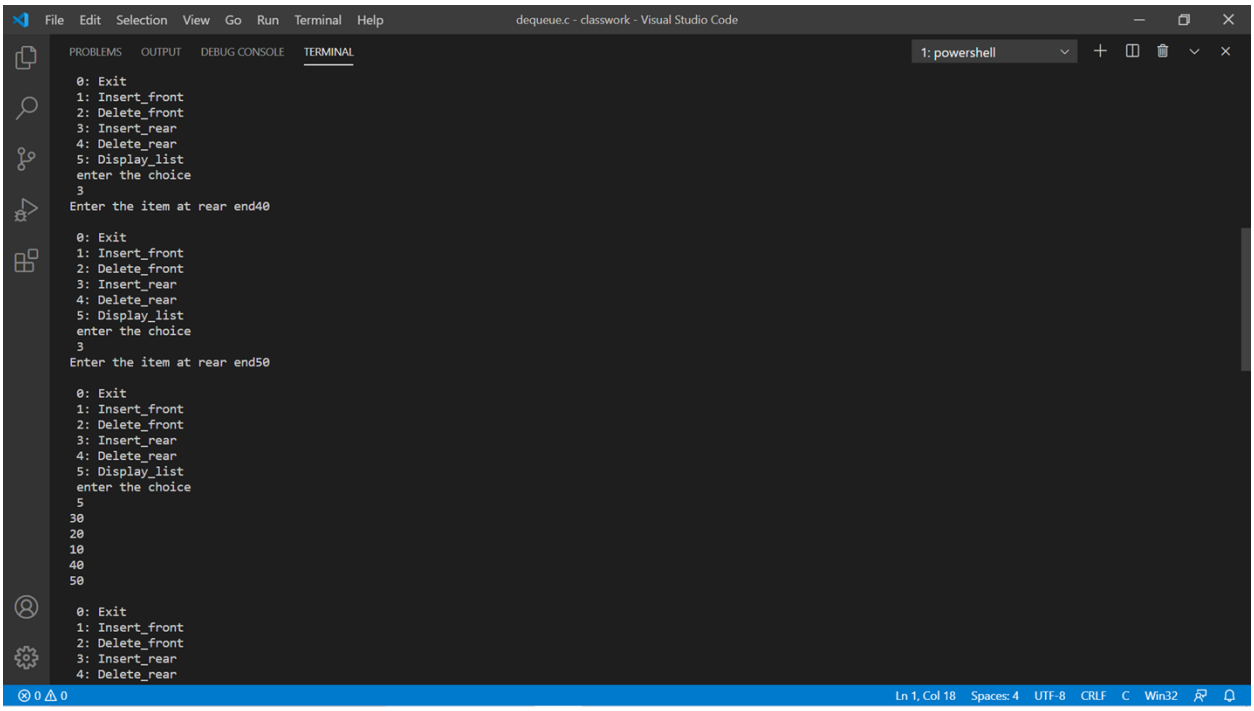

File Edit Selection View Go Run Terminal Help
dequeue.c - classwork - Visual Studio Code
dequeue.c
stack.c
linkedlist.c
linkedlist > dequeue.c > ...
temp->link = NULL;
x = first;
if (x == NULL)
{
return temp;
}
while (x->link != NULL)
{
x = x->link;
}
x->link = temp;
return first;
}
NODE delete_rear(NODE first){
NODE cur,prev;
if (first==NULL){
printf("List is empty");
return first;
}
if (first->link==NULL){
printf("item deleted is %d\n",first->item);
free(first);
return NULL;
}
prev=NULL;
cur=first;
while(cur->link!=NULL){
prev=cur;
cur=cur->link;
}
printf("Item deleted at rearend is %d",cur->item);
free(cur);
0 0
Ln 1, Col 18 Spaces: 4 UTF-8 CRLF C Win32

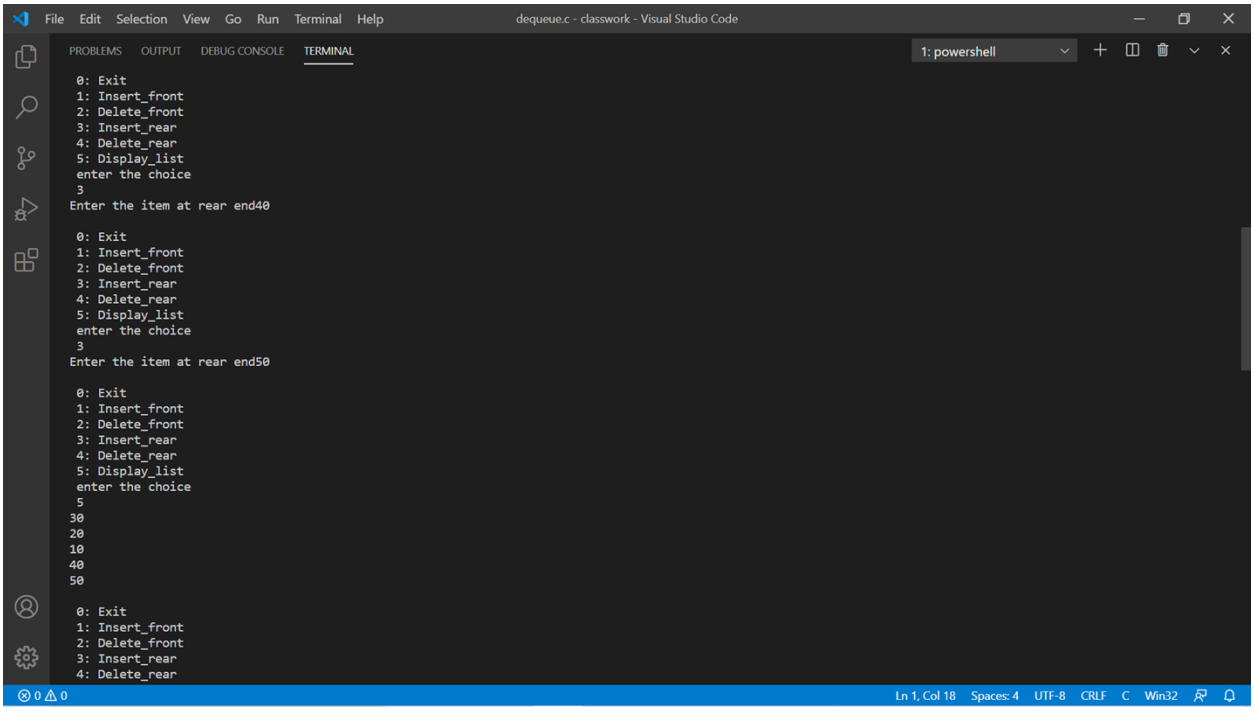

File Edit Selection View Go Run Terminal Help
dequeue.c - classwork - Visual Studio Code
dequeue.c
stack.c
linkedlist.c
linkedlist > dequeue.c > ...
printf("Item deleted at rearend is %d",cur->item);
free(cur);
prev->link=NULL;
return first;
}
NODE deletefront(NODE first)
{ if (first==NULL)
{
printf("list is empty\n");
return first;
}
NODE temp;
temp = first;
printf("Element deleted at front-end is %d \n",first->item);
first = first->link;
free(temp);
return first;
}
void display(NODE first)
{
NODE temp;
if(first==NULL)
printf("list empty cannot display items\n");
for(temp=first;temp!=NULL;temp=temp->link)
{
printf("%d\n",temp->item);
}
}
void main()
{
int item, choice, pos;
Ln 1, Col 18 Spaces: 4 UTF-8 CRLF C Win32

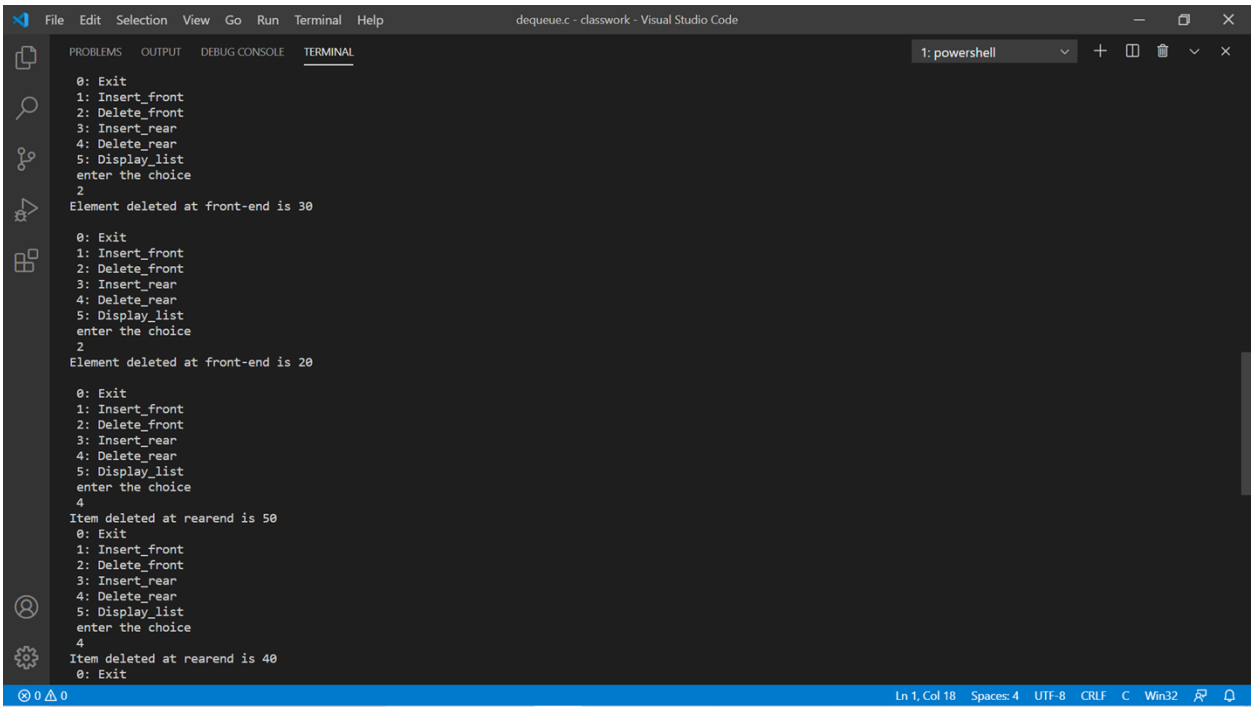

File Edit Selection View Go Run Terminal Help
dequeue.c - classwork - Visual Studio Code
dequeue.c
stack.c
linkedlist.c
linkedlist > dequeue.c > ...
int item, choice, pos;
NODE first = NULL;
for (;;)
{
printf("\n 0: Exit \n 1: Insert_front\n 2: Delete_front\n 3: Insert_rear\n 4: Delete_rear\n 5: Display_list\n");
printf(" enter the choice\n ");
scanf("%d",&choice);
switch (choice)
{
case 0: exit(0);
case 1:
printf("enter the item at front - end\n");
scanf("%d",&item);
first = insert_front(first, item);
break;
case 2:
first = deletefront(first);
break;
case 3:
printf("Enter the item at rear end");
scanf("%d",&item);
first = insert_rear(first, item);
break;
case 4:
first = delete_rear(first);
break;
case 5:
display(first);
break;
default:
exit(0);
break;
Ln 1, Col 18 Spaces: 4 UTF-8 CRLF C Win32

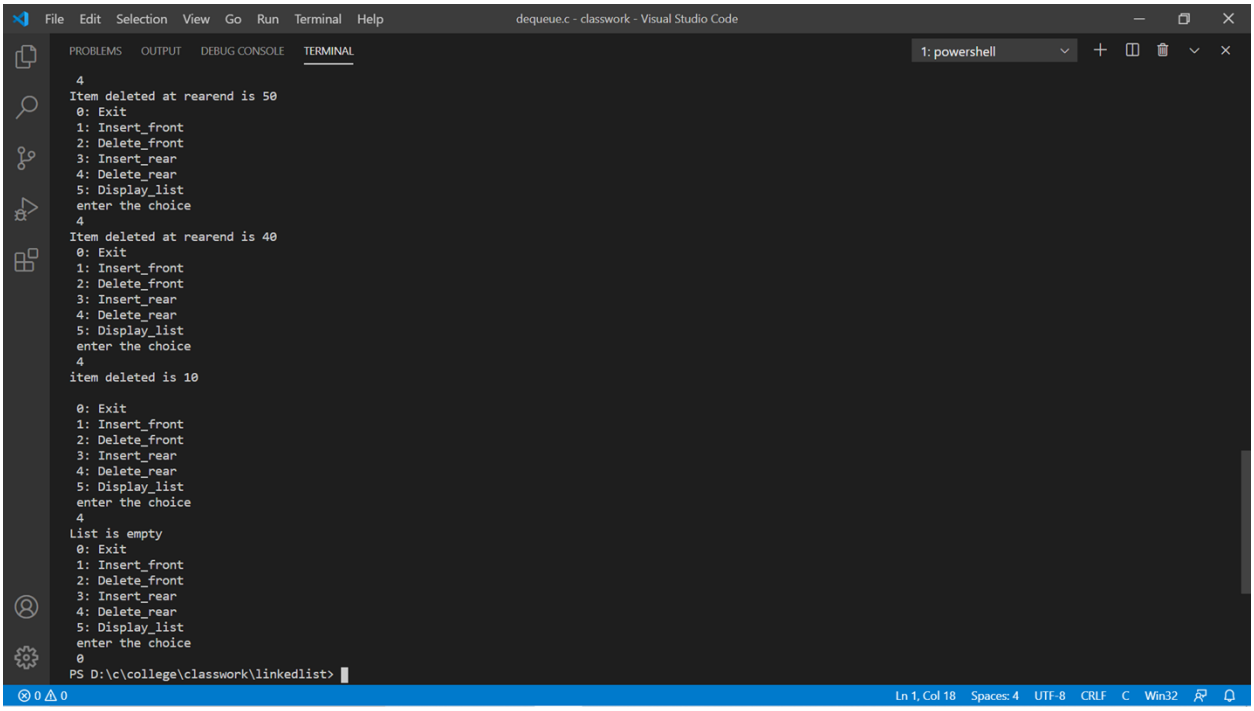

File Edit Selection View Go Run Terminal Help
dequeue.c - classwork - Visual Studio Code
dequeue.c
stack.c
linkedlist.c
linkedlist > dequeue.c > ...
{
printf("\n 0: Exit \n 1: Insert_front\n 2: Delete_front\n 3: Insert_rear\n 4: Delete_rear\n 5: Display_list\n");
printf(" enter the choice\n ");
scanf("%d",&choice);
switch (choice)
{
case 0: exit(0);
case 1:
printf("enter the item at front - end\n");
scanf("%d",&item);
first = insert_front(first, item);
break;
case 2:
first = deletefront(first);
break;
case 3:
printf("Enter the item at rear end");
scanf("%d",&item);
first = insert_rear(first, item);
break;
case 4:
first = delete_rear(first);
break;
case 5:
display(first);
break;
default:
exit(0);
break;
}
}
}
Ln 1, Col 18 Spaces: 4 UTF-8 CRLF C Win32


File Edit Selection View Go Run Terminal Help
dequeue.c - classwork - Visual Studio Code
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
1: powershell
PS D:\c\college\classwork> cd linkedlist
PS D:\c\college\classwork\linkedlist> gcc dequeue.c
PS D:\c\college\classwork\linkedlist> ./a.exe
0: Exit
1: Insert_front
2: Delete_front
3: Insert_rear
4: Delete_rear
5: Display_list
enter the choice
1
enter the item at front - end
10
0: Exit
1: Insert_front
2: Delete_front
3: Insert_rear
4: Delete_rear
5: Display_list
enter the choice
1
enter the item at front - end
20
0: Exit
1: Insert_front
2: Delete_front
3: Insert_rear
4: Delete_rear
5: Display_list
enter the choice
1
enter the item at front - end
30
0: Exit
1: Insert_front
Ln 1, Col 18 Spaces: 4 UTF-8 CRLF C Win32


File Edit Selection View Go Run Terminal Help
dequeue.c - classwork - Visual Studio Code
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
1: powershell
0: Exit
1: Insert_front
2: Delete_front
3: Insert_rear
4: Delete_rear
5: Display_list
enter the choice
3
Enter the item at rear end40
0: Exit
1: Insert_front
2: Delete_front
3: Insert_rear
4: Delete_rear
5: Display_list
enter the choice
3
Enter the item at rear end50
0: Exit
1: Insert_front
2: Delete_front
3: Insert_rear
4: Delete_rear
5: Display_list
enter the choice
5
30
20
10
40
50
0: Exit
1: Insert_front
2: Delete_front
3: Insert_rear
4: Delete_rear
Ln 1, Col 18 Spaces: 4 UTF-8 CRLF C Win32


File Edit Selection View Go Run Terminal Help
dequeue.c - classwork - Visual Studio Code
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
1: powershell
0: Exit
1: Insert_front
2: Delete_front
3: Insert_rear
4: Delete_rear
5: Display_list
enter the choice
3
Enter the item at rear end40
0: Exit
1: Insert_front
2: Delete_front
3: Insert_rear
4: Delete_rear
5: Display_list
enter the choice
3
Enter the item at rear end50
0: Exit
1: Insert_front
2: Delete_front
3: Insert_rear
4: Delete_rear
5: Display_list
enter the choice
5
30
20
10
40
50
0: Exit
1: Insert_front
2: Delete_front
3: Insert_rear
4: Delete_rear
Ln 1, Col 18 Spaces: 4 UTF-8 CRLF C Win32


File Edit Selection View Go Run Terminal Help
dequeue.c - classwork - Visual Studio Code
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
1: powershell
0: Exit
1: Insert_front
2: Delete_front
3: Insert_rear
4: Delete_rear
5: Display_list
enter the choice
2
Element deleted at front-end is 30
0: Exit
1: Insert_front
2: Delete_front
3: Insert_rear
4: Delete_rear
5: Display_list
enter the choice
2
Element deleted at front-end is 20
0: Exit
1: Insert_front
2: Delete_front
3: Insert_rear
4: Delete_rear
5: Display_list
enter the choice
4
Item deleted at rearend is 50
0: Exit
1: Insert_front
2: Delete_front
3: Insert_rear
4: Delete_rear
5: Display_list
enter the choice
4
Item deleted at rearend is 40
0: Exit
0 0
Ln 1, Col 18 Spaces: 4 UTF-8 CRLF C Win32


File Edit Selection View Go Run Terminal Help
dequeue.c - classwork - Visual Studio Code
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
1: powershell
4
Item deleted at rearend is 50
0: Exit
1: Insert_front
2: Delete_front
3: Insert_rear
4: Delete_rear
5: Display_list
enter the choice
4
Item deleted at rearend is 40
0: Exit
1: Insert_front
2: Delete_front
3: Insert_rear
4: Delete_rear
5: Display_list
enter the choice
4
item deleted is 10
0: Exit
1: Insert_front
2: Delete_front
3: Insert_rear
4: Delete_rear
5: Display_list
enter the choice
4
List is empty
0: Exit
1: Insert_front
2: Delete_front
3: Insert_rear
4: Delete_rear
5: Display_list
enter the choice
0
PS D:\c\college\classwork\linkedlist>
0 0
Ln 1, Col 18 Spaces: 4 UTF-8 CRLF C Win32