

Document Project Build Tools Help

Save All Revert Close Back Forward Compile Build Execute Color Chooser Find

stack.c conversion.c evaluation.c factorial.c gcd.c queue.c circular queue.c priorityqueue.c ascending.c descending.c

```
1 #include<stdio.h>
2 #include<conio.h>
3 #include<process.h>
4 #include<stdlib.h>
5 struct node{
6     int inf;
7     struct node *link;
8 };
9 typedef struct node *NODE;
10 NODE getnode()
11 {
12     NODE x;
13     x=(NODE)malloc(sizeof(struct node));
14     if(x==NULL)
15     {
16         printf("MEMORY IS FULL\n");
17         exit(0);
18     }
19     else
20     return x;
21 }
22 NODE insertfront(NODE first,int item)
23 {
24     NODE temp;
25     temp=getnode();
26     temp->inf=item;
27     temp->link=NULL;
28     if(first==NULL)
29     {
30         return temp;
31     }
32     temp->link=first;
33     first=temp;
34     return first;
35 }
36 NODE insertrear(NODE first,int item)
```

```
conversion.c ✘ evaluation.c ✘ factorial.c ✘ gcd.c ✘ queue.c ✘ circular queue.c ✘ priorityqueue.c ✘ ascending.c ✘ descending.c
Execute | Color Chooser | Find
NODE insertrear(NODE first,int item)
{
    NODE temp,cur;
    temp=getnode();
    temp->inf=item;
    temp->link=NULL;
    if(first==NULL)
    {
        return temp;
    }
    cur=first;
    while(cur->link != NULL)
    {
        cur=cur->link;
    }
    cur->link=temp;
    return first;
}

NODE insertpos(int item,int pos,NODE first)
{
    NODE temp,cur,prev;
    int count;
    temp=getnode();
    temp->inf=item;
    temp->link=NULL;
    if(first==NULL&&pos==1)
    {
        return temp;
    }
    if(first==NULL)
    {
        printf("invalid position\n");
        return first;
    }
    if(pos==1)
```

```
69 |     return first;
70 | }
71 | if(pos==1)
72 | {
73 |     temp->link=first;
74 |     first=temp;
75 |     return temp;
76 | }
77 | count=1;
78 | prev=NULL;
79 | cur=first;
80 | while(cur!=NULL&&count!=pos)
81 | {
82 |     prev=cur;
83 |     cur=cur->link;
84 |     count++;
85 | }
86 | if(count==pos)
87 | {
88 |
89 |     prev->link=temp;
90 |     temp->link=cur;
91 |     return first;
92 | }
93 | printf("invalid position\n");
94 | return first;
95 | }
96 |
97 |
98 |
99 | void display(NODE first)
100| {
101|     NODE temp;
102|     if(first==NULL) {
103|         printf("THE LIST IS EMPTY\n");
104|     }
```

```
ack.c ✘ conversion.c ✘ evaluation.c ✘ factorial.c ✘ gcd.c ✘ queue.c -->
106
107     for(temp=first,temp!=NULL,temp=temp->link)
108     {
109         printf("%d\t",temp->inf);
110     }
111     printf("\n");
112 }
113
114 int main()
115 {
116     int c,item,pos;
117     NODE first=NULL;
118     for(;;)
119     {
120         printf("1-INSERTFRONT \n 2-INSERTREAR \n 3-INSERT AT GIVEN POSITION \n 4-DISPLAY \n 5-E");
121         printf("ENTER THE CHOICE\n");
122         scanf("%d",&c);
123         switch(c)
124         {
125             case 1:
126                 printf("ENTER THE ELEMENT TO BE INSERTED FRONT\n");
127                 scanf("%d",&item);
128                 first=insertfront(first,item);
129                 break;
130             case 2:
131                 printf("ENTER THE ELEMENT TO BE INSERTED AT THE END\n");
132                 scanf("%d",&item);
133                 first=insertrear(first,item);
134                 break;
135             case 3:
136                 printf("ENTER THE ELEMENT AND THE POS AT WHICH IT SHOULD BE INSERTED\n");
137                 scanf("%d",&item);
138                 scanf("%d",&pos);
139                 first=insertpos(item,pos,first);
140                 break;
141             case 4:
142                 display(first);
```

```
    printf("ENTER THE ELEMENT TO BE INSERTED FRONT\n");
    scanf("%d", &item);
    first=insertfront(first,item);
break;
case 2:
    printf("ENTER THE ELEMENT TO BE INSERTED AT THE END\n");
    scanf("%d", &item);
    first=insertrear(first,item);
break;
case 3:
    printf("ENTER THE ELEMENT AND THE POS AT WHICH IT SHOULD BE INSERTED\n");
    scanf("%d", &item);
    scanf("%d", &pos);
    first=insertpos(item,pos,first);
break;
case 4:
    display(first);
break;
case 5:
    exit(0);
default:
    printf("INVALID CHOICE\n");
}
}
```

```
kedlist1" "linkedlist1.c" (in directory: C:\Users\Nithin')
hed successfully.
```

```
1-INSERTFRONT
2-INSERTREAR
3-INSERT AT GIVEN POSITION
4-DISPLAY
5-EXIT
ENTER THE CHOICE
1
ENTER THE ELEMENT TO BE INSERTED FRONT
12
1-INSERTFRONT
2-INSERTREAR
3-INSERT AT GIVEN POSITION
4-DISPLAY
5-EXIT
ENTER THE CHOICE
1
ENTER THE ELEMENT TO BE INSERTED FRONT
23
1-INSERTFRONT
2-INSERTREAR
3-INSERT AT GIVEN POSITION
4-DISPLAY
5-EXIT
ENTER THE CHOICE
2
ENTER THE ELEMENT TO BE INSERTED AT THE END
34
1-INSERTFRONT
2-INSERTREAR
3-INSERT AT GIVEN POSITION
```

```
display [99] 1-INSERTFRONT
getnode [10] 2-INSERTREAR
insertfront [2] 3-INSERT AT GIVEN POSITION
insertpos [55] 4-DISPLAY
insertrear [3] 5-EXIT
ENTER THE CHOICE
2
ENTER THE ELEMENT TO BE INSERTED AT THE END
45
Structs
node [5]
inf [6]
link [7]
Typedefs / End
NODE [9]
4
THE ELEMENTS ARE=23      12      34      45
1-INSERTFRONT
2-INSERTREAR
3-INSERT AT GIVEN POSITION
4-DISPLAY
5-EXIT
ENTER THE CHOICE
3
ENTER THE ELEMENT AND THE POS AT WHICH IT SHOULD BE INSERTED
67
3
1-INSERTFRONT
2-INSERTREAR
3-INSERT AT GIVEN POSITION
```

Symbols Documents

C:\WINDOWS\SYSTEM32\cmd.exe

```
ENTER THE ELEMENT AND THE POS AT WHICH IT SHOULD BE INSERTED
67
3
1-INSERTFRONT
2-INSERTREAR
3-INSERT AT GIVEN POSITION
4-DISPLAY
5-EXIT
ENTER THE CHOICE
4
THE ELEMENTS ARE=23      12      67      34      45
1-INSERTFRONT
2-INSERTREAR
3-INSERT AT GIVEN POSITION
4-DISPLAY
5-EXIT
ENTER THE CHOICE
3
ENTER THE ELEMENT AND THE POS AT WHICH IT SHOULD BE INSERTED
45
6
1-INSERTFRONT
2-INSERTREAR
3-INSERT AT GIVEN POSITION
4-DISPLAY
5-EXIT
ENTER THE CHOICE
```