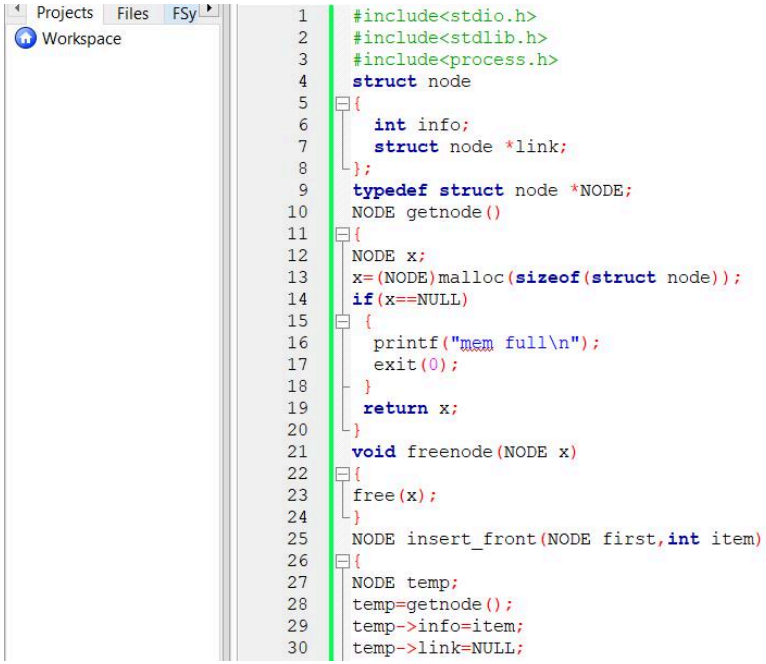
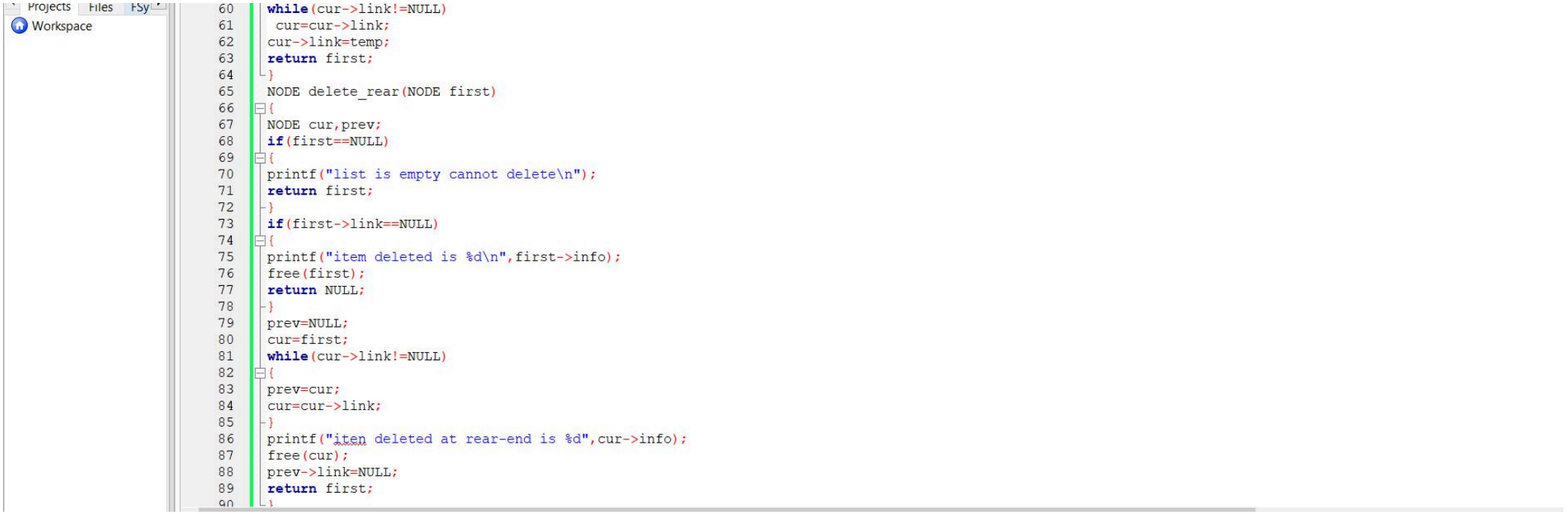
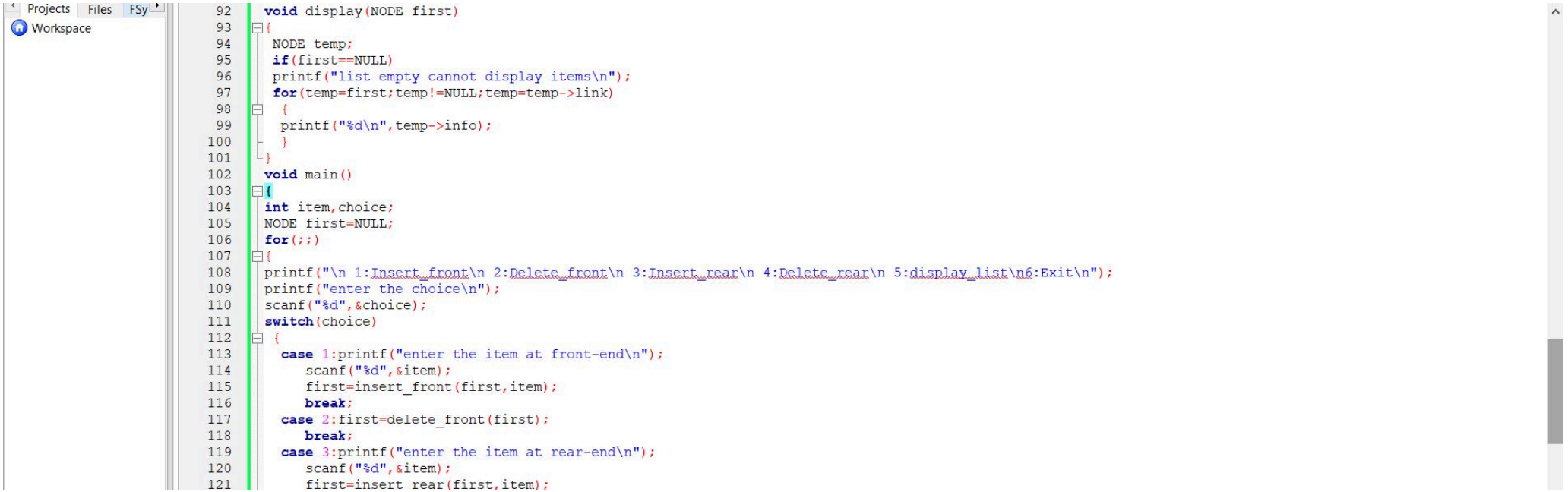



```c
#include<stdio.h>
#include<stdlib.h>
#include<process.h>
struct node
{
   int info;
   struct node *link;
};
typedef struct node *NODE;
NODE getnode()
{
NODE x;
x=(NODE)malloc(sizeof(struct node));
if(x==NULL)
 {
  printf("mem full\n");
  exit(0);
 }
 return x;
}
void freenode(NODE x)
{
free(x);
}
NODE insert_front(NODE first,int item)
{
NODE temp;
temp=getnode();
temp->info=item;
temp->link=NULL;
```

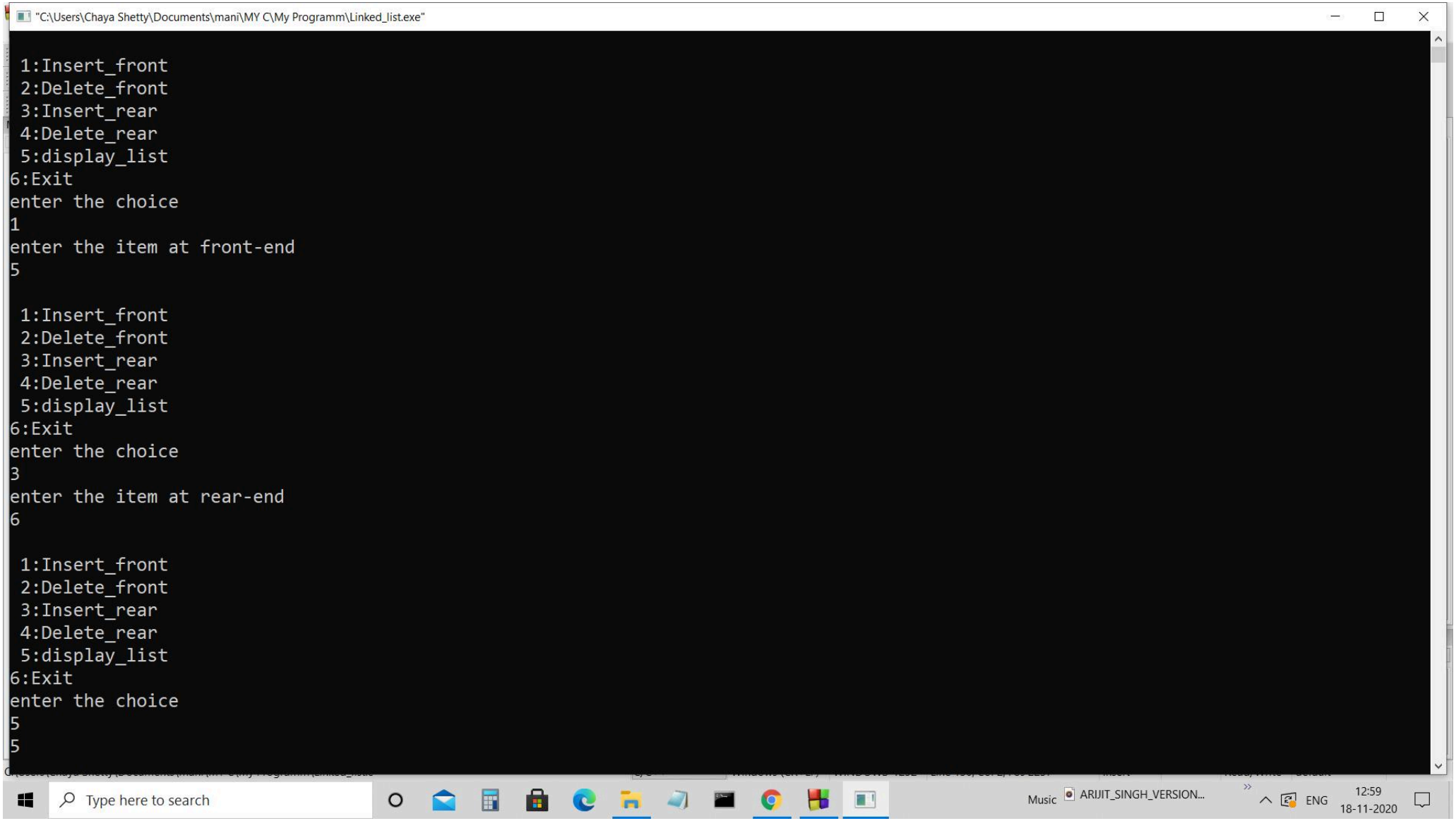
Workspace

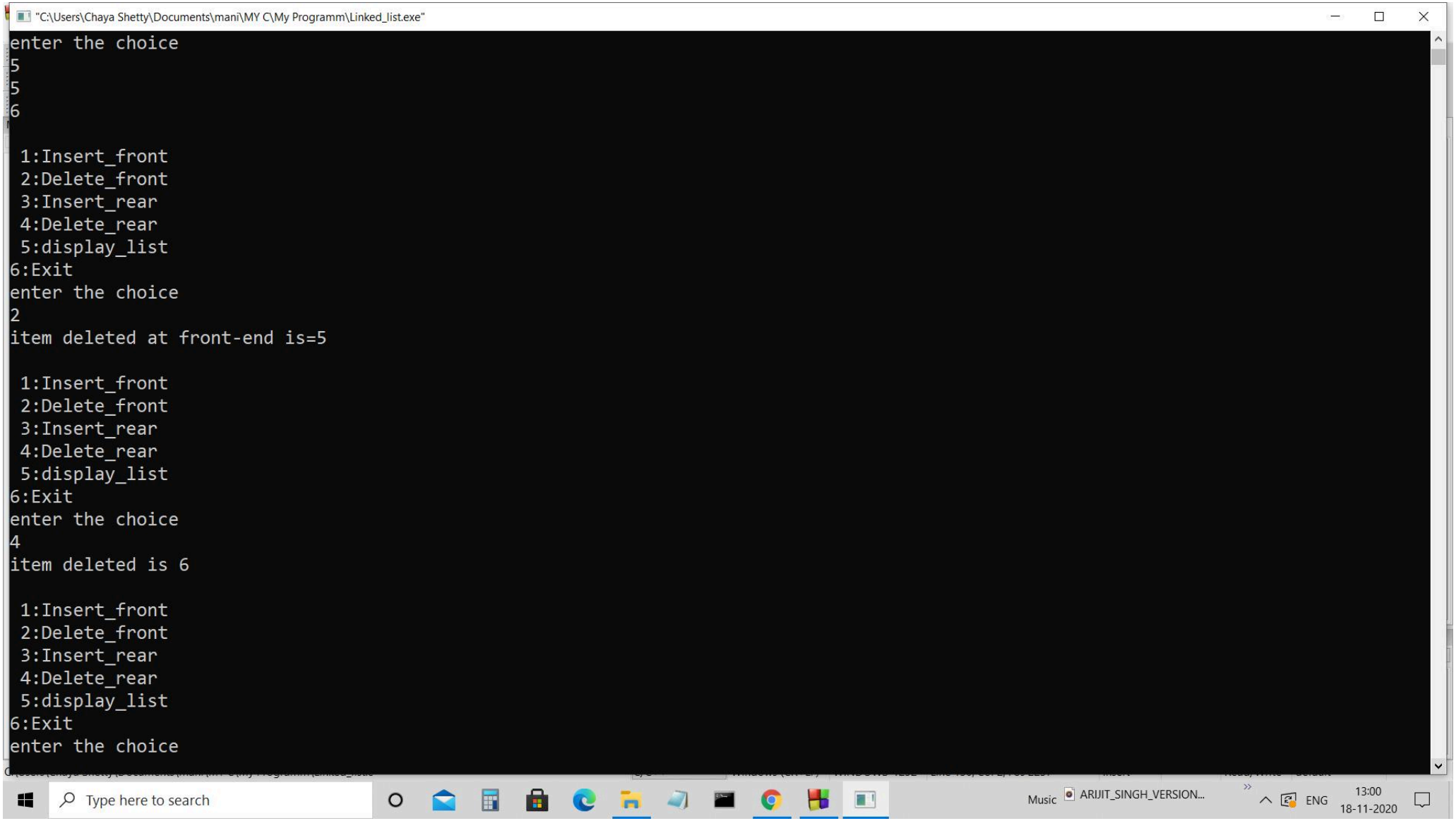
```
31  if(first==NULL)
32  return temp;
33  temp->link=first;
34  first=temp;
35  return first;
36  }
37  NODE delete_front(NODE first)
38  {
39  NODE temp;
40  if(first==NULL)
41  {
42  printf("list is empty cannot delete\n");
43  return first;
44  }
45  temp=first;
46  temp=temp->link;
47  printf("item deleted at front-end is=%d\n",first->info);
48  free(first);
49  return temp;
50  }
51  NODE insert_rear(NODE first,int item)
52  {
53  NODE temp,cur;
54  temp=getnode();
55  temp->info=item;
56  temp->link=NULL;
57  if(first==NULL)
58   return temp;
59  cur=first;
```

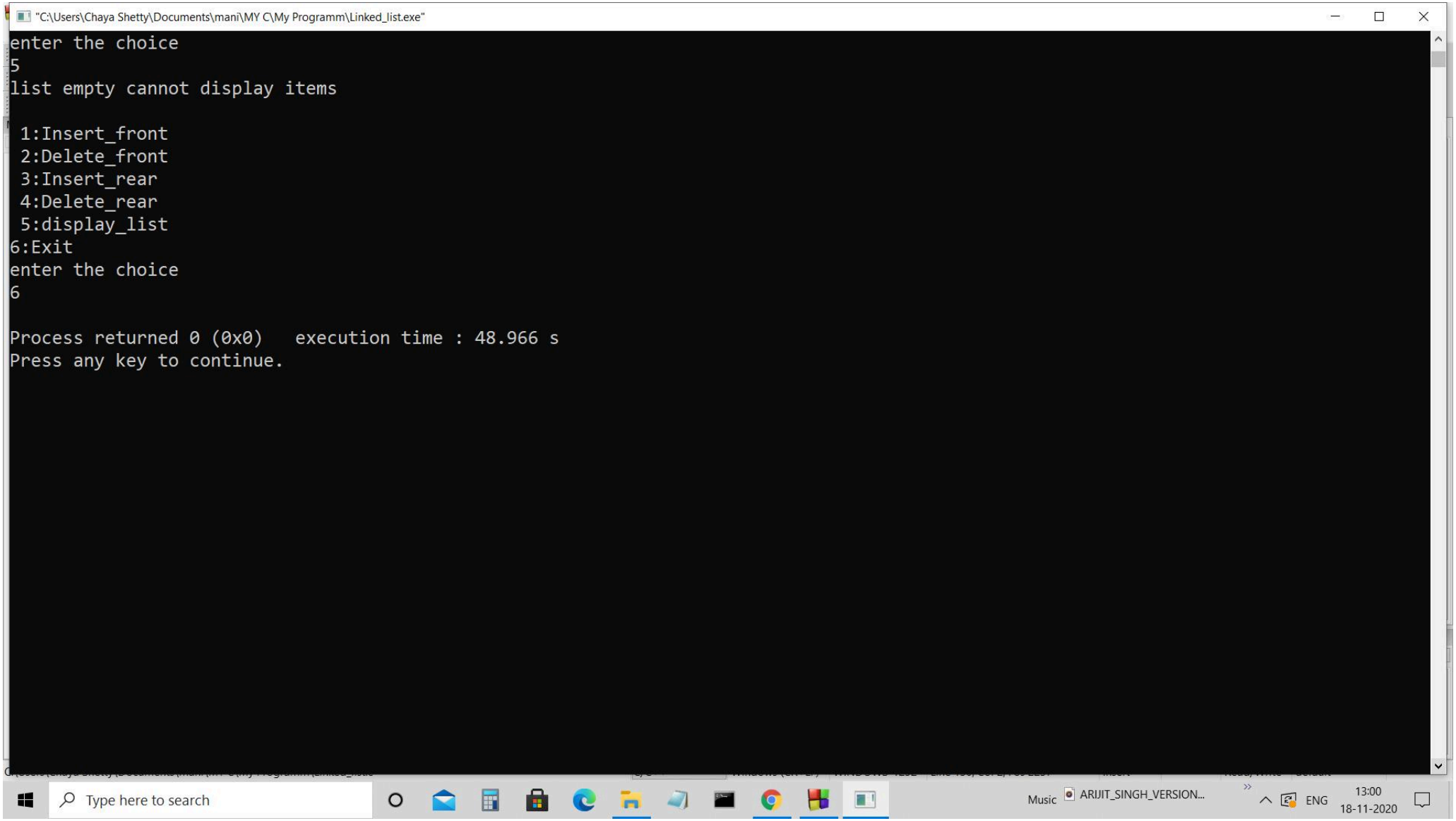

Projects Files FSy
Workspace
while(cur->link!=NULL)
cur=cur->link;
cur->link=temp;
return first;
}
NODE delete_rear(NODE first)
{
NODE cur,prev;
if(first==NULL)
{
printf("list is empty cannot delete\n");
return first;
}
if(first->link==NULL)
{
printf("item deleted is %d\n",first->info);
free(first);
return NULL;
}
prev=NULL;
cur=first;
while(cur->link!=NULL)
{
prev=cur;
cur=cur->link;
}
printf("iten deleted at rear-end is %d",cur->info);
free(cur);
prev->link=NULL;
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->info);
  }
}
void main()
{
int item,choice;
NODE first=NULL;
for(;;)
{
printf("\n 1:Insert_front\n 2:Delete_front\n 3:Insert_rear\n 4:Delete_rear\n 5:display_list\n6:Exit\n");
printf("enter the choice\n");
scanf("%d",&choice);
switch(choice)
 {
  case 1:printf("enter the item at front-end\n");
     scanf("%d",&item);
     first=insert_front(first,item);
     break;
  case 2:first=delete_front(first);
     break;
  case 3:printf("enter the item at rear-end\n");
     scanf("%d",&item);
     first=insert_rear(first,item);
```


"C:\Users\Chaya Shetty\Documents\mani\MY C\My Programm\Linked_list.exe"
1:Insert_front
2:Delete_front
3:Insert_rear
4:Delete_rear
5:display_list
6:Exit
enter the choice
1
enter the item at front-end
5
1:Insert_front
2:Delete_front
3:Insert_rear
4:Delete_rear
5:display_list
6:Exit
enter the choice
3
enter the item at rear-end
6
1:Insert_front
2:Delete_front
3:Insert_rear
4:Delete_rear
5:display_list
6:Exit
enter the choice
5
5
Type here to search
Music
ARIJIT_SINGH_VERSION...
ENG
12:59
18-11-2020


"C:\Users\Chaya Shetty\Documents\mani\MY C\My Programm\Linked_list.exe"
enter the choice
5
5
6
1:Insert_front
2:Delete_front
3:Insert_rear
4:Delete_rear
5:display_list
6:Exit
enter the choice
2
item deleted at front-end is=5
1:Insert_front
2:Delete_front
3:Insert_rear
4:Delete_rear
5:display_list
6:Exit
enter the choice
4
item deleted is 6
1:Insert_front
2:Delete_front
3:Insert_rear
4:Delete_rear
5:display_list
6:Exit
enter the choice
Type here to search
Music
ARIJIT_SINGH_VERSION...
ENG
13:00
18-11-2020


"C:\Users\Chaya Shetty\Documents\mani\MY C\My Programm\Linked_list.exe"
enter the choice
5
list empty cannot display items
1:Insert_front
2:Delete_front
3:Insert_rear
4:Delete_rear
5:display_list
6:Exit
enter the choice
6
Process returned 0 (0x0) execution time : 48.966 s
Press any key to continue.
Type here to search
Music
ARIJIT_SINGH_VERSION...
ENG
13:00
18-11-2020