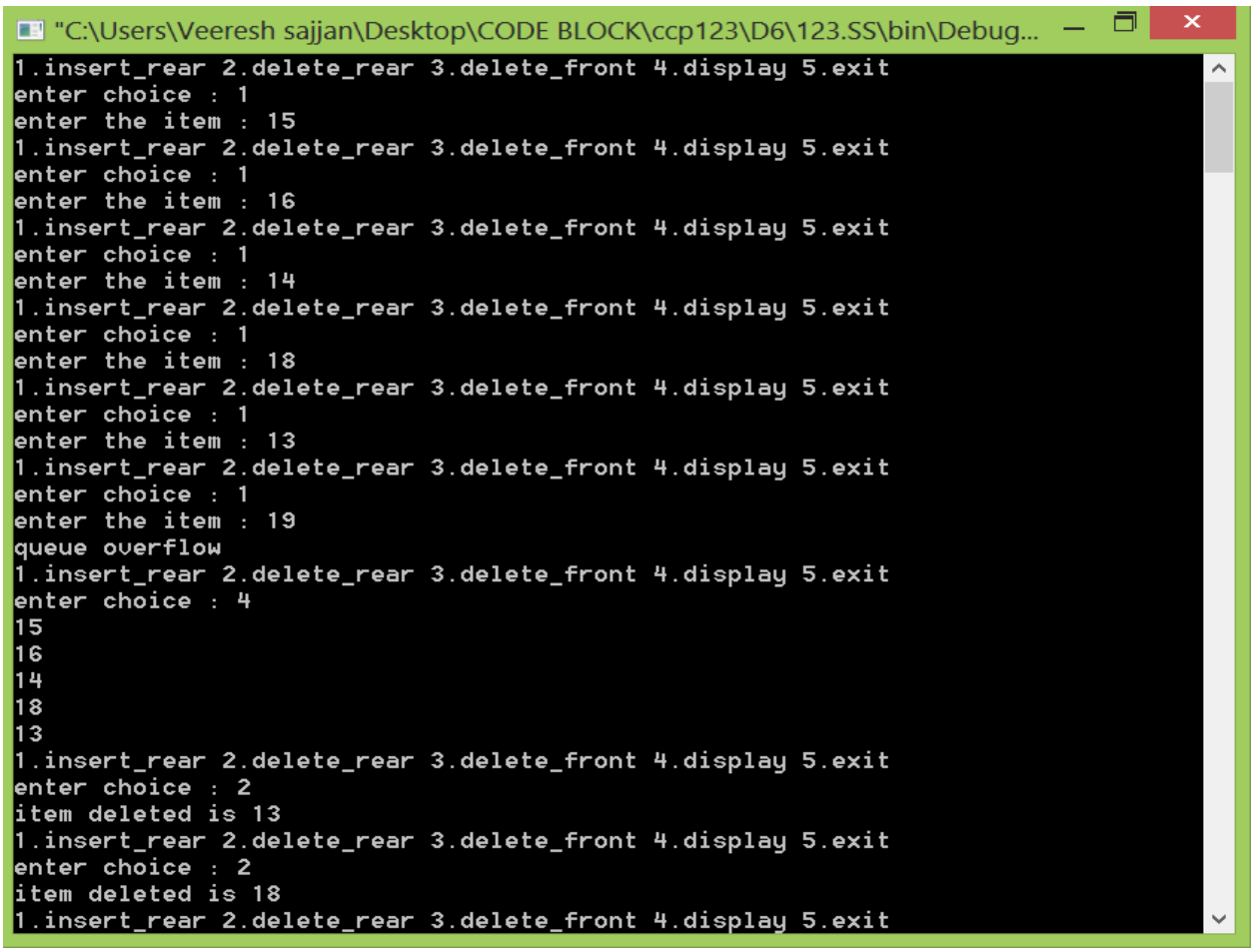
INPUT RISTRICTED D QUEUE:

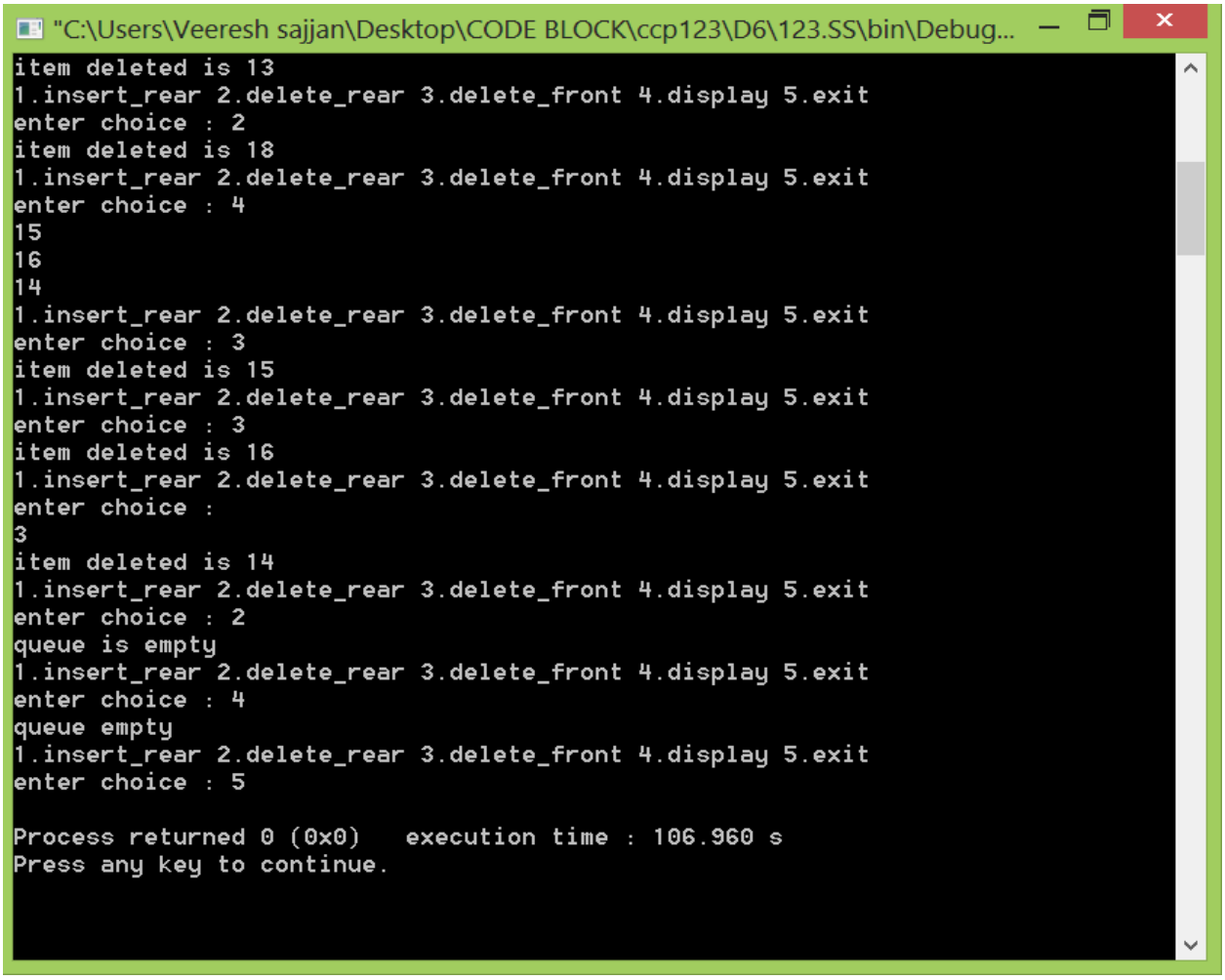
```
#include<stdio.h>
#include<conio.h>
#include<process.h>
#define qsize 5
int f=0,r=-1,ch;
int item,q[10];

int isfull()
 {
  return(r==qsize-1)?1:0;
 }
int isempty()
 {
  return(f>r)?1:0;
 }
void insert_rear()
 {
  if(isfull())
          {
           printf("queue overflow\n");
           return;
          }
  r=r+1;
  q[r]=item;
 }
```

```
void delete_front()
 {
  if(isempty())
        {
         printf("queue empty\n");
         return;
        }
  printf("item deleted is %d\n",q[(f)++]);
  if(f>r)
        {
         f=0;
         r=-1;
        }
 }
void delete_rear()
 {
  if(isempty())
        {
         printf("queue is empty\n");
         return;
        }
  printf("item deleted is %d\n",q[(r)--]);
  if(f>r)
        {
         f=0;
         r=-1;
```

```
        }
  }
void display()
  {
   int i;
   if(isempty())
        {
         printf("queue empty\n");
         return;
        }
   for(i=f;i<=r;i++)
       printf("%d\n",q[i]);
  }
void main()
 {

  for(;;)
   {
       printf("1.insert_rear 2.delete_rear 3.delete_front 4.display 5.exit\n");
       printf("enter choice : ");
       scanf("%d",&ch);
       switch(ch)
        {
          case 1:printf("enter the item : ");
                      scanf("%d",&item);
                      insert_rear();
```

```
                    break;
          case 2:delete_rear();
                    break;
          case 3:delete_front();
                    break;
          case 4:display();
                    break;
          default:exit(0);
         }
        }
}
```




"C:\Users\Veeresh sajjan\Desktop\CODE BLOCK\ccp123\D6\123.SS\bin\Debug...
item deleted is 13
1.insert_rear 2.delete_rear 3.delete_front 4.display 5.exit
enter choice : 2
item deleted is 18
1.insert_rear 2.delete_rear 3.delete_front 4.display 5.exit
enter choice : 4
15
16
14
1.insert_rear 2.delete_rear 3.delete_front 4.display 5.exit
enter choice : 3
item deleted is 15
1.insert_rear 2.delete_rear 3.delete_front 4.display 5.exit
enter choice : 3
item deleted is 16
1.insert_rear 2.delete_rear 3.delete_front 4.display 5.exit
enter choice :
3
item deleted is 14
1.insert_rear 2.delete_rear 3.delete_front 4.display 5.exit
enter choice : 2
queue is empty
1.insert_rear 2.delete_rear 3.delete_front 4.display 5.exit
enter choice : 4
queue empty
1.insert_rear 2.delete_rear 3.delete_front 4.display 5.exit
enter choice : 5
Process returned 0 (0x0) execution time : 106.960 s
Press any key to continue.