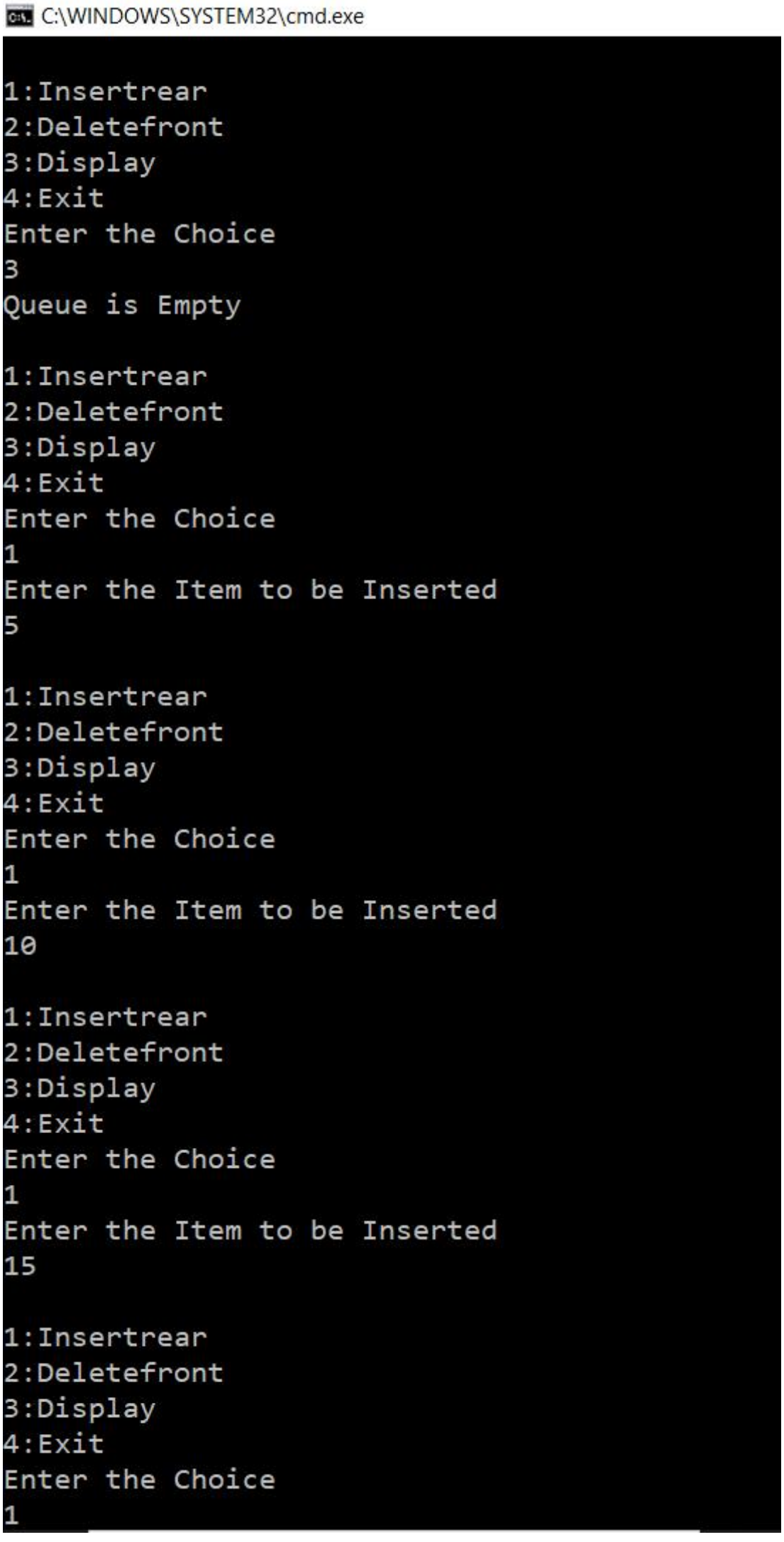
```c
#include<stdio.h>
#include<process.h>
#define QUE_SIZE 3
int item,front=0,rear=-1,q[QUE_SIZE],count=0;
void insertrear()
{
if(count==QUE_SIZE)
{
printf("Queue Overflow\n");
return;
}
rear=(rear+1)%QUE_SIZE;
q[rear]=item;
count++;
}
int deletefront()
{
if(count==0) return -1;
item=q[front];
front=(front+1)%QUE_SIZE;
count=count-1;
return item;
}
void displayQ()
{
int i,f;
if(count==0)
{
printf("Queue is Empty\n");
return;
}
f=front;
printf("Contents of the Queue are :\n");
for(i=1;i<=count;i++)
{
printf("%d\n",q[f]);
f=(f+1)%QUE_SIZE;
}
```

```
f=front;
printf("Contents of the Queue are :\n");
for(i=1;i<=count;i++)
{
printf("%d\n",q[f]);
f=(f+1)%QUE_SIZE;
}
}
int main()
{
 int choice;
 for(;;)
 {
 printf("\n1:Insertrear\n2:Deletefront\n3:Display\n4:Exit\n");
 printf("Enter the Choice\n");
 scanf("%d",&choice);

 switch(choice)
 {
 case 1:printf("Enter the Item to be Inserted\n");
    scanf("%d",&item);
    insertrear();
    break;
 case 2:item=deletefront();
    if(item==-1)
    printf("Queue is Empty\n");
    else
    printf("The Item Deleted is =%d\n",item);
    break;
 case 3:displayQ();
    break;
 default:exit(0);
}
}
 return 0;
}
```


C:\WINDOWS\SYSTEM32\cmd.exe
1:Insertrear
2:Deletefront
3:Display
4:Exit
Enter the Choice
3
Queue is Empty
1:Insertrear
2:Deletefront
3:Display
4:Exit
Enter the Choice
1
Enter the Item to be Inserted
5
1:Insertrear
2:Deletefront
3:Display
4:Exit
Enter the Choice
1
Enter the Item to be Inserted
10
1:Insertrear
2:Deletefront
3:Display
4:Exit
Enter the Choice
1
Enter the Item to be Inserted
15
1:Insertrear
2:Deletefront
3:Display
4:Exit
Enter the Choice
1

C:\WINDOWS\SYSTEM32\cmd.exe

```
4:Exit
Enter the Choice
1
Enter the Item to be Inserted
15

1:Insertrear
2:Deletefront
3:Display
4:Exit
Enter the Choice
1
Enter the Item to be Inserted
20
Queue Overflow

1:Insertrear
2:Deletefront
3:Display
4:Exit
Enter the Choice
3
Contents of the Queue are :
5
10
15

1:Insertrear
2:Deletefront
3:Display
4:Exit
Enter the Choice
2
The Item Deleted is =5

1:Insertrear
2:Deletefront
3:Display
4:Exit
Enter the Choice
2
The Item Deleted is =10
```

C:\WINDOWS\SYSTEM32\cmd.exe

```
Enter the Choice
2
The Item Deleted is =10

1:Insertrear
2:Deletefront
3:Display
4:Exit
Enter the Choice
2
The Item Deleted is =15

1:Insertrear
2:Deletefront
3:Display
4:Exit
Enter the Choice
3
Queue is Empty

1:Insertrear
2:Deletefront
3:Display
4:Exit
Enter the Choice
4


------------------
(program exited with code: 0)

Press any key to continue . . .
```