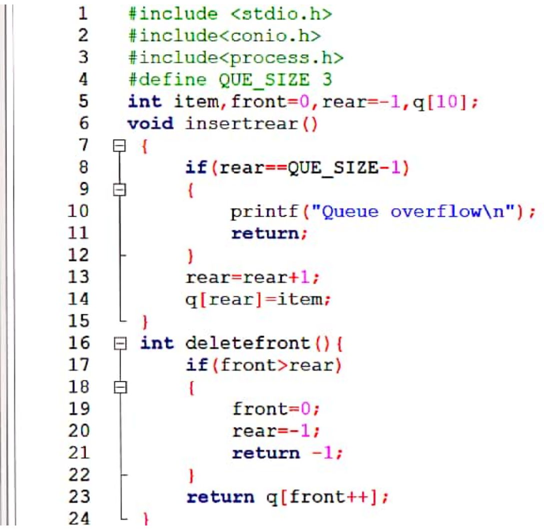
Queue

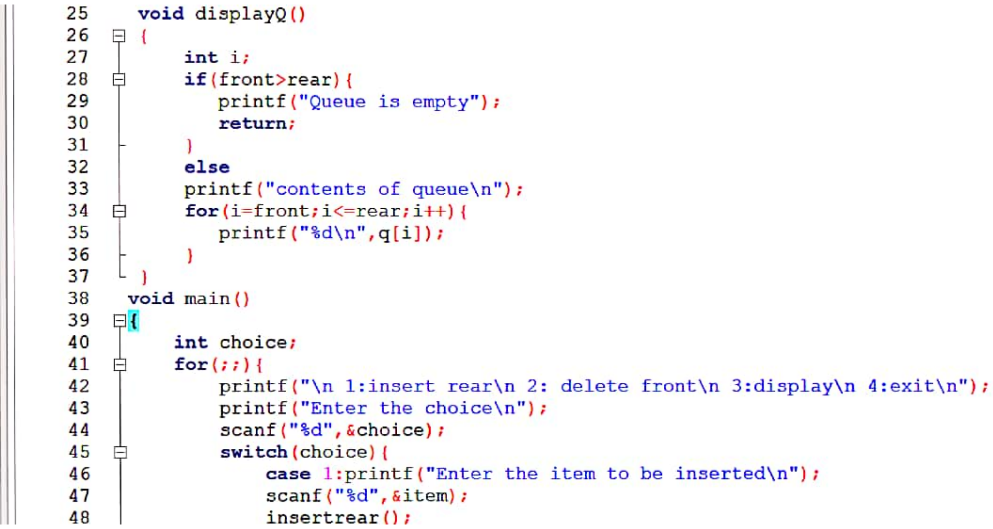
```
# Include <stdio.h>
# include <conio.h>
# include <process.h>
# define QUE_SIZE 3

int item, front = 0, rear = -1, q[10];
void insertrear()
{
    if (rear == QUE_SIZE -1)
    {   Print ("Queue overflow\n");
        return;

    }
    rear = rear+1;
    q [rear] = item;
} int    deletefront(){
         if (front > rear)
         {
              front = 0;
              rear = -1;
              return -1;
         }
         return q[front ++];

}
```

```
Void   displayQ(){
{
  int i;
  If (front > rear){
       Printf("Queue is empty");
       return;

  }
  else
       printf(" Contents of queue"\n");
       for (i=front , i<=rear ; i++){
            Printf("%d \n", q[i]);


       }
   }
Void main ()
{
     int choice;
     for (;;){
     printf("\n 1: insert rear\n 2: deletefront\
     n3: display \n 4 : 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 isempty\n");
 else
      printf("item deleted = %d\n", item);
   break;
    Case  3: displayQ()
    break;
    default : exit(0);
```

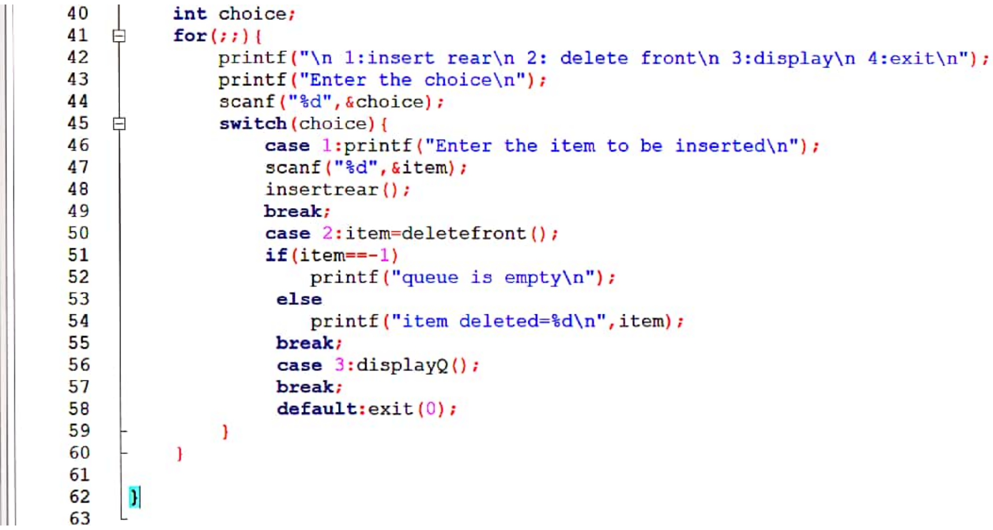


```
#include <stdio.h>
#include<conio.h>
#include<process.h>
#define QUE_SIZE 3
int item,front=0,rear=-1,q[10];
void insertrear()
{
    if(rear==QUE_SIZE-1)
    {
        printf("Queue overflow\n");
        return;
    }
    rear=rear+1;
    q[rear]=item;
}
int deletefront(){
    if(front>rear)
    {
        front=0;
        rear=-1;
        return -1;
    }
    return q[front++];
}
```

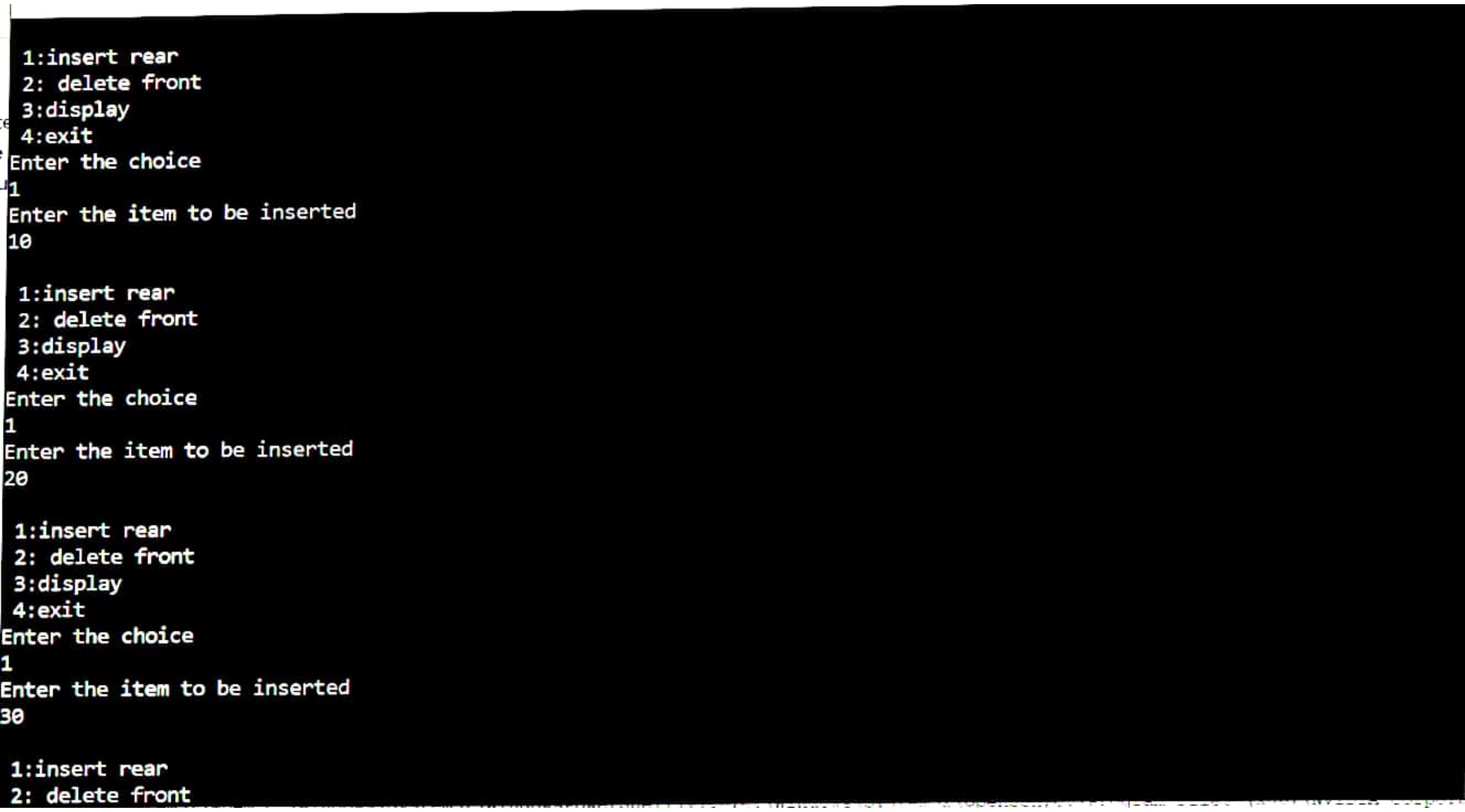


```
 void displayQ()
 {
     int i;
     if(front>rear){
        printf("Queue is empty");
        return;
     }
     else
     printf("contents of queue\n");
     for(i=front;i<=rear;i++){
        printf("%d\n",q[i]);
     }
 }
void main()
{
    int choice;
    for(;;){
        printf("\n 1:insert rear\n 2: delete front\n 3:display\n 4: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();
```

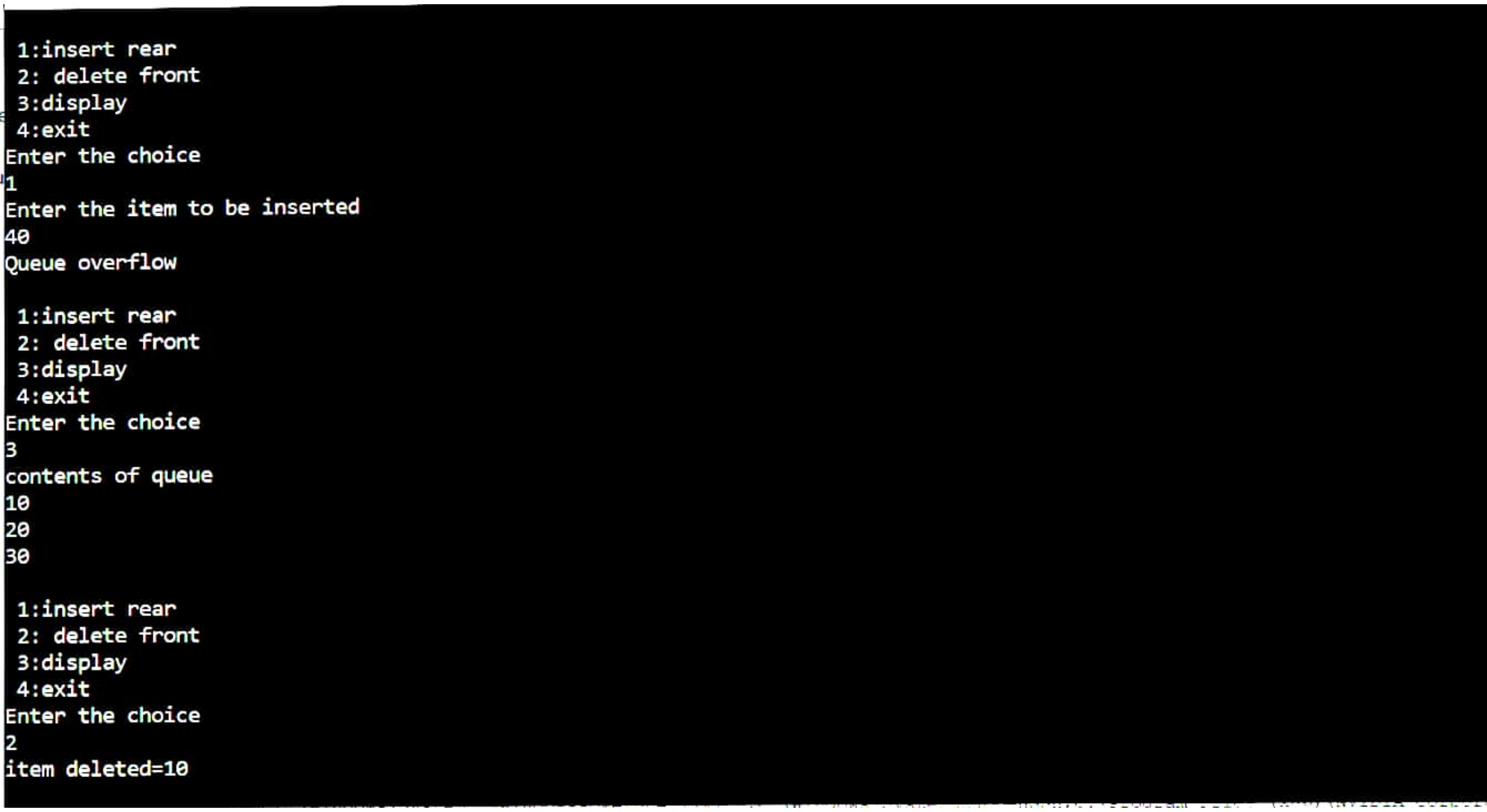
Scanned with CamScanner



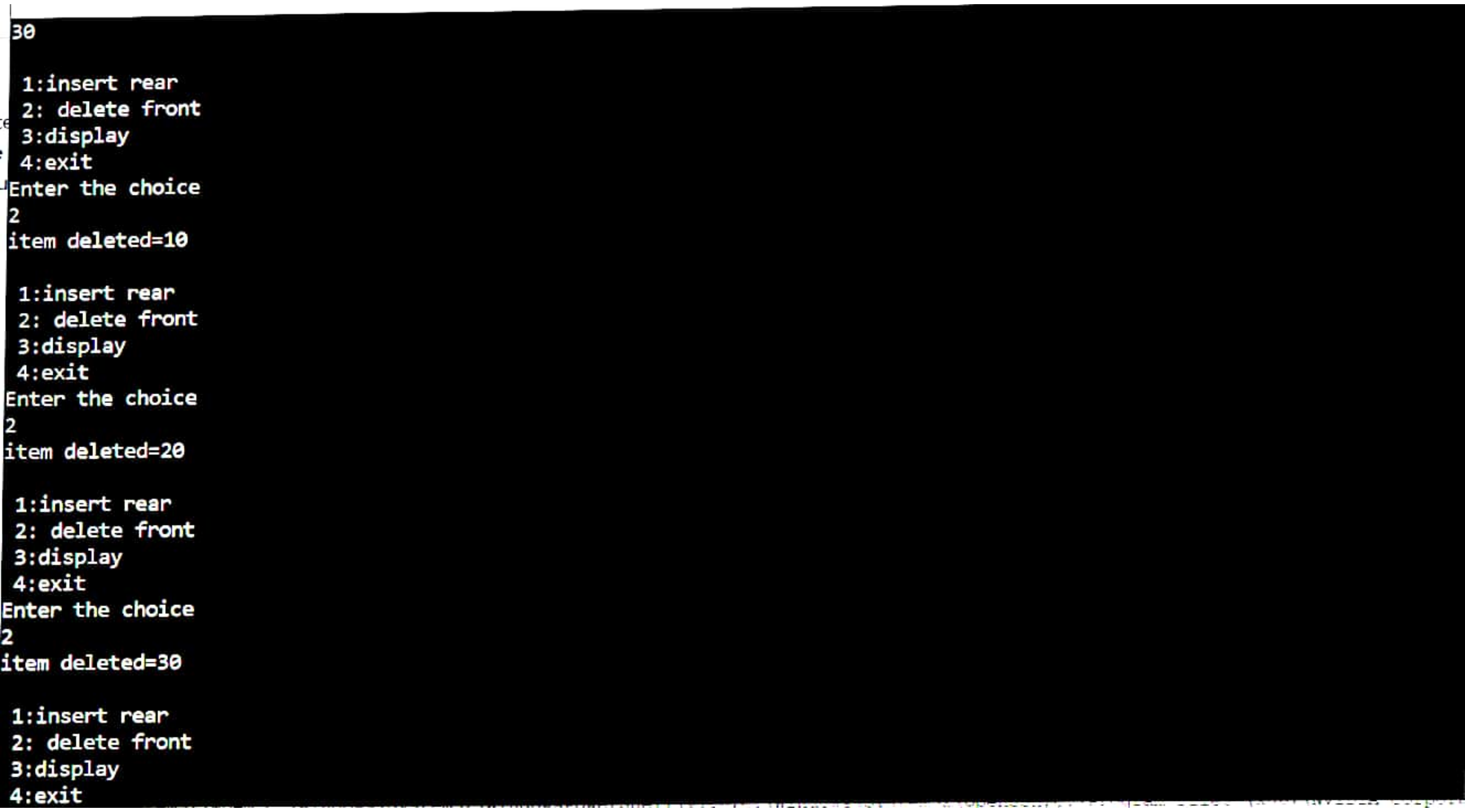
```
    int choice;
    for(;;){
        printf("\n 1:insert rear\n 2: delete front\n 3:display\n 4:exit\n");
        printf("Enter the choice\n");
        scanf("%d",&choice);
        switch(choice){
            case 1:printf("Enter the item to be inserted\n");
            scanf("%d",&item);
            insertrear();
            break;
            case 2:item=deletefront();
            if(item==-1)
                printf("queue is empty\n");
             else
                printf("item deleted=%d\n",item);
             break;
             case 3:displayQ();
             break;
             default:exit(0);
        }
    }

}
```



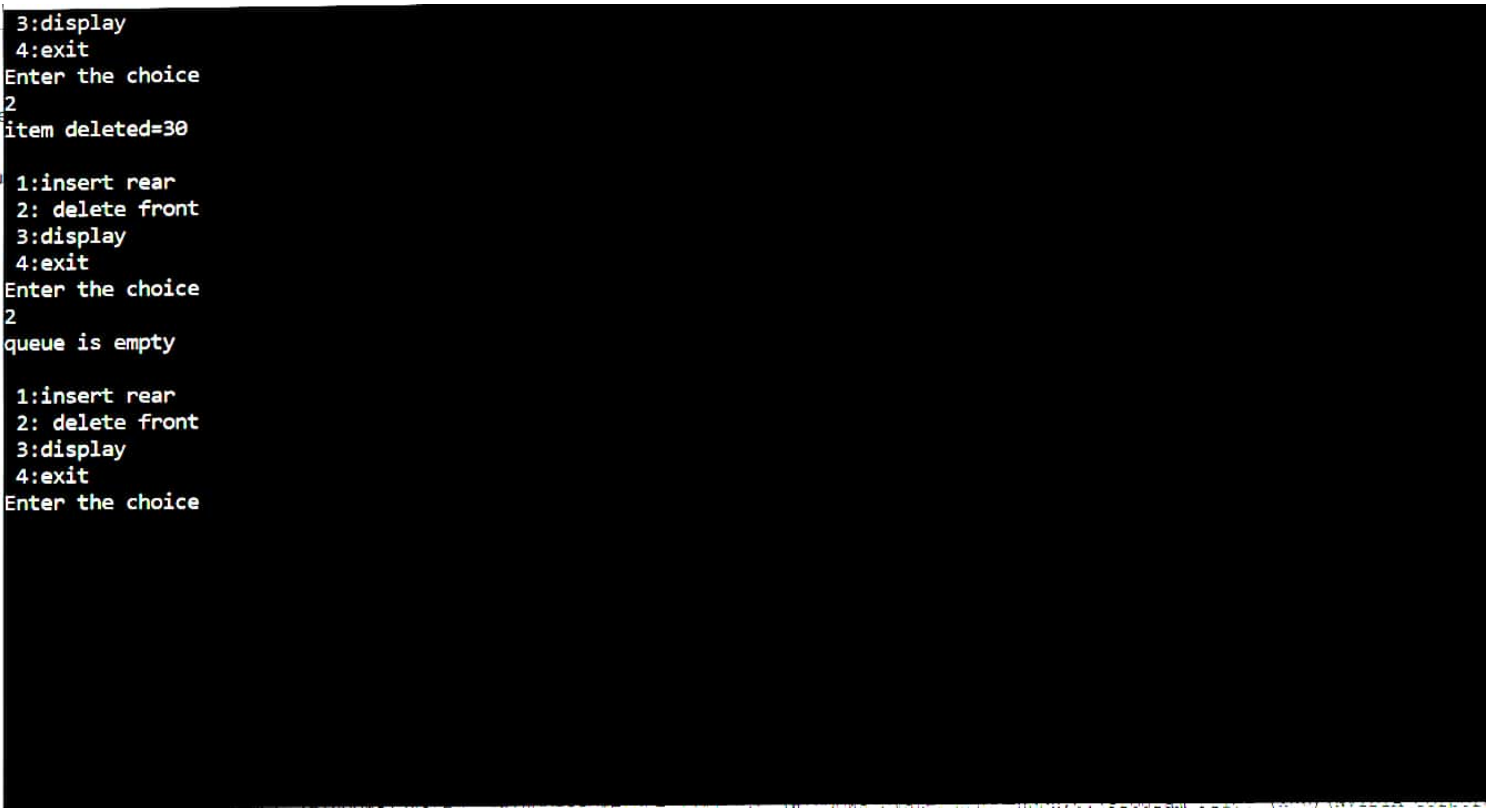
```
 1:insert rear
 2: delete front
 3:display
 4:exit
Enter the choice
1
Enter the item to be inserted
10

 1:insert rear
 2: delete front
 3:display
 4:exit
Enter the choice
1
Enter the item to be inserted
20

 1:insert rear
 2: delete front
 3:display
 4:exit
Enter the choice
1
Enter the item to be inserted
30

 1:insert rear
 2: delete front
```



```
 1:insert rear
 2: delete front
 3:display
 4:exit
Enter the choice
1
Enter the item to be inserted
40
Queue overflow

 1:insert rear
 2: delete front
 3:display
 4:exit
Enter the choice
3
contents of queue
10
20
30

 1:insert rear
 2: delete front
 3:display
 4:exit
Enter the choice
2
item deleted=10
```



```
30

 1:insert rear
 2: delete front
 3:display
 4:exit
Enter the choice
2
item deleted=10

 1:insert rear
 2: delete front
 3:display
 4:exit
Enter the choice
2
item deleted=20

 1:insert rear
 2: delete front
 3:display
 4:exit
Enter the choice
2
item deleted=30

 1:insert rear
 2: delete front
 3:display
 4:exit
```



```
 3:display
 4:exit
Enter the choice
2
item deleted=30

 1:insert rear
 2: delete front
 3:display
 4:exit
Enter the choice
2
queue is empty

 1:insert rear
 2: delete front
 3:display
 4:exit
Enter the choice
```