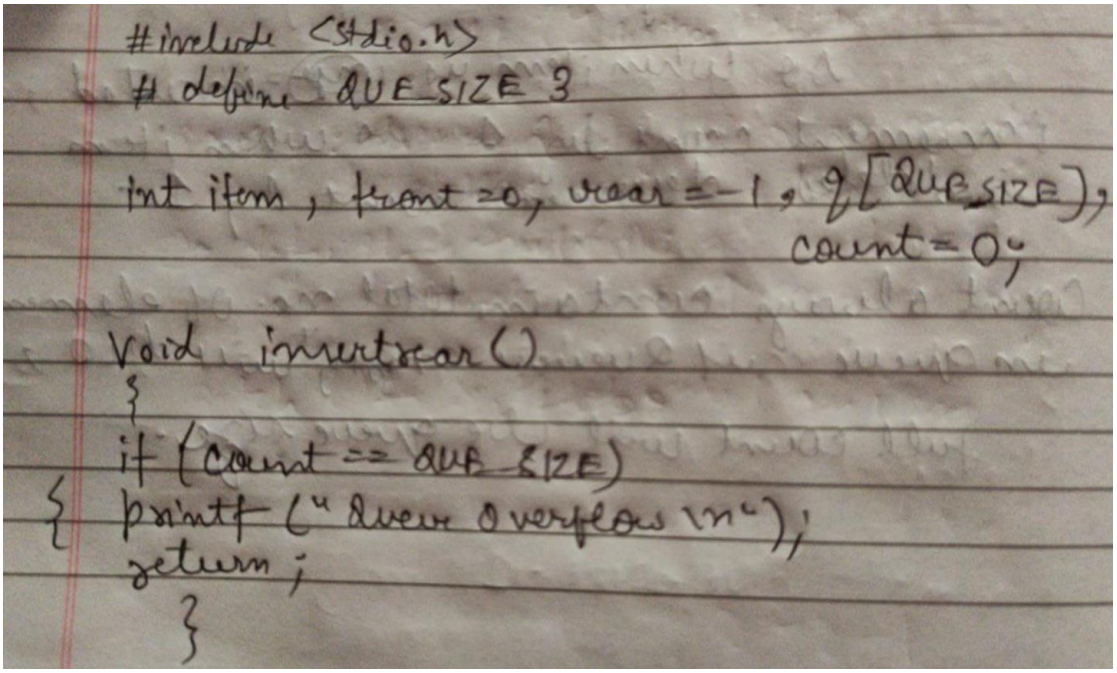
```
#include<stdio.h>
#include<stdlib.h>
#include<process.h>
#define que_size 5
int item,front=0,rear=-1,q[que_size],count=0;
void insertrear()
{
   if(count==que_size)
   {
      printf("queue overflow\n");
      return;
   }
   rear=(rear+1)%que_size;
   q[rear]=item;
   count++;
}
int deletefront()
{
   if(count==0) return -1;
   item = q[front];
   front=(front+1)%que_size;
   count-=1;
   return item;
}
void displayq()
```

```
{
   int i,f;
   if(count==0)
   {
      printf("queue is empty\n");
      return;
   }
   f=front;
   printf("contents of queue \n");
   for(i=0;i<count;i++)
   {
      printf("%d\n",q[f]);
      f=(f+1)%que_size;
   }
}
void main()
{
   int choice;
   for(;;)
   {
      printf("\n1.Insert rear\n2.Delete front \n3.Display \n4.exit \n");
      printf("Enter the choice : ");
      scanf("%d",&choice);
      switch(choice)
      {
```

```
        case 1:printf("Enter the item to be inserted : ");
               scanf("%d",&item);
               insertrear();
               break;
        case 2:item=deletefront();
               if(item==-1)
               printf("queue is empty\n");
               else
               printf("item deleted is %d \n",item);
               break;
        case 3:displayq();
               break;
        case 4: exit(0);
        default:printf("WRONG CHOICE!");
      }
   }
return 0;
}
```



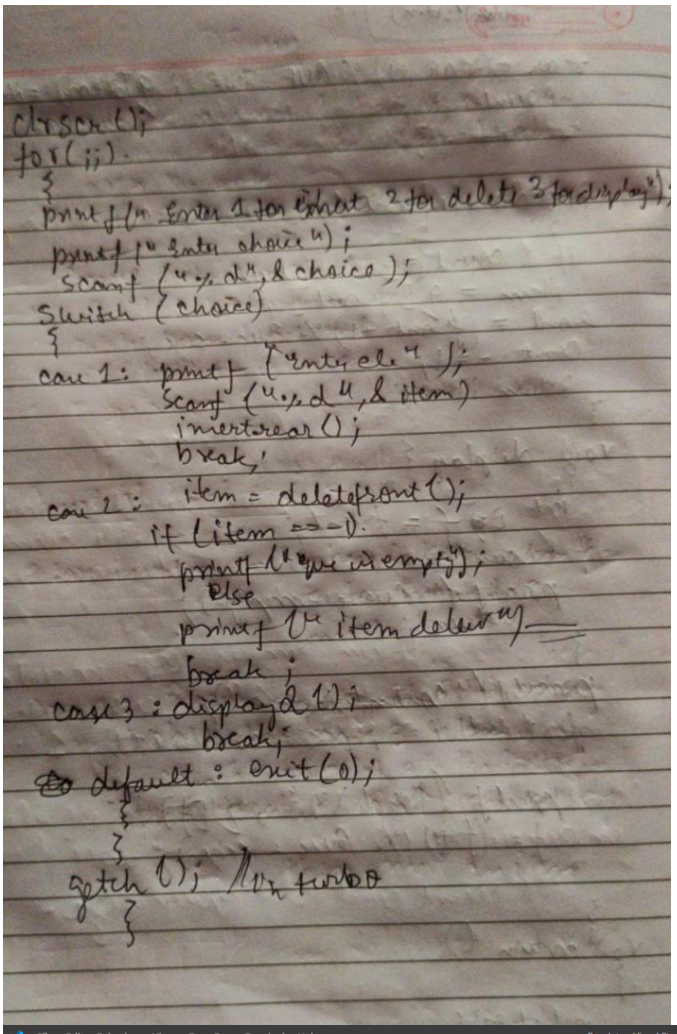
```
#include <stdio.h>
# define QUE_SIZE 3

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++ ;
return ;

int deletefront ()
{
if ( count == 0) return -1;
item = q[front];
front = (front + 1) % que_size;
count -= 1;
return item;
}
void display {
int i, f = front;
if (count == 0)
printf ("Queue empty");
return ;
}
printf ("Contents: \n");
for (int i = 0; i <= cont; i++)
{
printf ("%d \n", q[f]);
f = (f + 1) % que_size);
}
}
void main ()
{
int choice;
```



```
clrscr();
for(;;)
{
printf("\n Enter 1 for insert 2 for delete 3 for display");
printf("\n Enter choice");
scanf("%d",&choice);
switch (choice)
{
case 1: printf("enter el.");
        scanf("%d",&item);
        insertrear();
        break;
case 2: item = deletefront();
        if(item ==-1)
        printf("que is empty");
        else
        printf("item deleted");
        break;
case 3: display();
        break;
default : exit(0);
}
}
getch(); //to hold
}
```