

*Untitled1 X ds lab test1.c X ds labtest 1.c X

```
#include <stdio.h>
#include <stdlib.h>
#include <string.h>
#define MAX 3
```

```
int front=-1;
int rear=-1;
```

```
int number[MAX];
char name[MAX][20];
int id[MAX];
char *date[MAX][15];
```

```
void Enqueue(int, char*, int, char*);
void Dequeue();
void display();
```

```
int main(void)
```

```
{
```

```
    Enqueue(001, "Vins", 000, "13-11-2020");
    Enqueue(002, "Vineeth", 001, "13-11-2020");
    Enqueue(003, "Someone", 002, "12-11-2020");
    display();
    Enqueue(001, "Vins", 000, "13-11-2020");
    Dequeue();
    Enqueue(001, "Vins", 000, "13-11-2020");
```

```
}
```

```
void Enqueue(int num, char *Name, int ID, char *Date)
```



```

void Enqueue(int num, char *Name, int ID, char *Date)
{
    if ((front == 0 && rear == MAX - 1) || (front == rear + 1))
    {
        printf("Call log is full\n");
        return;
    }
    else {
        rear=(rear+1)%MAX;

        number[rear] = num;
        strcpy(name[rear], Name);
        id[rear] = ID;
        strcpy(date[rear], Date);

        if(front == -1)
            front=0;
    }
}

void Dequeue()
{
    int Number;
    if((front == -1)&&(rear == -1))
    {
        printf("No remaining calls");
    }
    else
    {
        Number = number[front];
    }
}

```

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```
    }  
    else  
    {  
        Number = number[front];  
        printf("You have attended customer with number %d", Number);  
  
        if(front==rear) {  
            front=-1;  
            rear=-1;  
        }  
        else {  
            front=(front+1)%MAX;  
        }  
    }  
}
```

```
void display()  
{  
    int i;  
    if((front==-1)&& (rear==-1))  
    {  
        printf("No calls unattended.\n");  
        return;  
    }  
    else  
    {  
        printf("\nCall logs:\n");  
        i=front;  
        do  
        {  
            printf("%d\n%d\n%d\n%d\n\n" number[i] name[i] id[i] date[i]);  
            i++;  
        } while(i<MAX);  
    }  
}
```


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```
    }
    else {
        front=(front+1)%MAX;
    }
}

void display()
{
    int i;
    if((front==-1)&& (rear==-1))
    {
        printf("No calls unattended.\n");
        return;
    }
    else
    {
        printf("\nCall logs:\n");
        i=front;
        do
        {
            printf("%d\n%s\n%d\n%s\n\n", number[i], name[i], id[i], date[i]);
            if(i==rear)
                break;

            i=(i+1)%MAX;
        } while (i!=front);
    }
}
```