

# Menu :

The image shows a C++ IDE with the source code of a restaurant database application in the editor and its terminal output on the right.

**Source Code (restaurant.c):**

```
1  #include <stdio.h>
2  #include <string.h>
3  #include <stdlib.h>
4  #include <time.h>
5
6  struct fields{
7      int item_no;
8      char item_name[100];
9      int cost;
10     int quantity;
11 };
12 struct bills{
13     int date;
14     int month;
15     int year;
16     int hour;
17     int minute;
18     char customer_name[100];
19     int quantity[10];
20     char item_name[10][100];
21     int price[10];
22     int i;
23 };
24 void add_record(){
25     struct fields inp;
26     FILE *fop;
27     int n;
28     fop= fopen("restaurant.dat","ab");
29     printf("Enter details of items available in the restaurant : \n");
30     printf("-----\n\n");
31     char ch;
32     do{
33         printf("Enter Item no. : ");
34         scanf("%d",&inp.item_no);
35         fflush(stdin);
```

**Terminal Output:**

```
*****
Weclome to Restaurant Database!!
*****

----- MENU -----

(1)Add record
(2)Show restaurant menu
(3)Delete item from the database
(4)Update a record
(5)To search a bill
(6)Billing
(7)Exit

Enter your choice : █
```

EFFORTS BY ADITYA & SANDEEP

Show restaurant menu table in file :

```
Calculator.c files.c read.c restaurant.c x #ir > fields > item_no
1 #include <stdio.h>
2 #include <string.h>
3 #include <stdlib.h>
4 #include <time.h>
5
6 struct fields{
7     int item_no;
8     char item_name[100];
9     int cost;
10    int quantity;
11 };
12 struct bills{
13     int date;
14     int month;
15     int year;
16     int hour;
17     int minute;
18     char customer_name[100];
19     int quantity[10];
20     char item_name[10][100];
21     int price[10];
22     int i;
23 };
24 void add_record(){
25     struct fields inp;
26     FILE *fop;
27     int n;
28     fop= fopen("restaurant.dat","ab");
29     printf("Enter details of items available in the restaurant : \n");
30     printf("-----\n\n");
31     char ch;
32     do{
33         printf("Enter Item no. : ");
34         scanf("%d",&inp.item_no);
35         fflush(stdin);
```

PROBLEMS TERMINAL ... Code - Desktop + -

----- FOOD MENU -----			
ITEM NO.	ITEM NAME	COST	QUANTITY
1	Pizza	100	19
2	Burger	80	15
3	Pepsi	40	28
4	Fries	60	18
5	Garlic bread	100	8
6	Oreo shake	90	19
7	Sandwich	70	10
8	Ice cream	40	15
9	Lemon juice	40	15

Hit Enter to continue :

## Add a record :

```
C Calculator.c  C files.c  C read.c  C restaurant.c x  C #ir > ▢ ...
Users > aditya > Desktop > C restaurant.c > fields > item_no
1  #include <stdio.h>
2  #include <string.h>
3  #include <stdlib.h>
4  #include <time.h>
5
6  struct fields{
7      int item_no;
8      char item_name[100];
9      int cost;
10     int quantity;
11 };
12 struct bills{
13     int date;
14     int month;
15     int year;
16     int hour;
17     int minute;
18     char customer_name[100];
19     int quantity[10];
20     char item_name[10][100];
21     int price[10];
22     int i;
23 };
24 void add_record(){
25     struct fields inp;
26     FILE *fop;
27     int n;
28     fop= fopen("restaurant.dat","ab");
29     printf("Enter details of items available in the restaurant : \n");
30     printf("-----\n\n");
31     char ch;
32     do{
33         printf("Enter Item no. : ");
34         scanf("%d",&inp.item_no);
35         fflush(stdin);
```

Enter details of items available in the restaurant :

-----

Enter Item no. : 10  
Enter Item name : Wrap  
Enter cost : 70  
Enter quantity : 10

Do you want to continue adding items?(y/n) n



## After adding a record : (Change in file)

```
C Calculator.c  C files.c  C read.c  C restaurant.c X  C #ir  ▸ ▾  ...
Users > aditya > Desktop > C restaurant.c > fields > item_no

1  #include <stdio.h>
2  #include <string.h>
3  #include <stdlib.h>
4  #include <time.h>
5
6  struct fields{
7      int item_no;
8      char item_name[100];
9      int cost;
10     int quantity;
11 };
12 struct bills{
13     int date;
14     int month;
15     int year;
16     int hour;
17     int minute;
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19     int quantity[10];
20     char item_name[10][100];
21     int price[10];
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27     int n;
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31     char ch;
32     do{
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34         scanf("%d",&inp.item_no);
35         fflush(stdin);
```

PROBLEMS TERMINAL ... Code - Desktop + ▾ 🗑

FOOD MENU			
ITEM NO.	ITEM NAME	COST	QUANTITY
1	Pizza	100	19
2	Burger	80	15
3	Pepsi	40	28
4	Fries	60	18
5	Garlic bread	100	8
6	Oreo shake	90	19
7	Sandwich	70	10
8	Ice cream	40	15
9	Lemon juice	40	15
10	Wrap	70	10

Hit Enter to continue : █

# Updating a record :

```
C Calculator.c C files.c C read.c C restaurant.c X C #ir > ▢ ... PROBLEMS TERMINAL ... > Code - Desktop + ▾ ▢
```

Users > aditya > Desktop > C restaurant.c > fields > item\_no

```
1  #include <stdio.h>
2  #include <string.h>
3  #include <stdlib.h>
4  #include <time.h>
5
6  struct fields{
7      int item_no;
8      char item_name[100];
9      int cost;
10     int quantity;
11 };
12 struct bills{
13     int date;
14     int month;
15     int year;
16     int hour;
17     int minute;
18     char customer_name[100];
19     int quantity[10];
20     char item_name[10][100];
21     int price[10];
22     int i;
23 };
24 void add_record(){
25     struct fields inp;
26     FILE *fop;
27     int n;
28     fop= fopen("restaurant.dat","ab");
29     printf("Enter details of items available in the restaurant : \n");
30     printf("-----\n\n");
31     char ch;
32     do{
33         printf("Enter Item no. : ");
34         scanf("%d",&inp.item_no);
35         fflush(stdin);
```

```

UPDATE RECORD
-----

Enter the Item no. of item to be updated : 10

Item no. : 10
Item name : Wrap
Cost      : 70
Quantity  : 10
Update this record?(y/n) :y
-----

Enter the details :

Enter Item no. : 10
Enter Item name : Water
Enter cost : 20
Enter quantity : 10

Record successfully updated!!

Hit Enter to continue.....
```

# Change in the file after updating :

Calculator.c

files.c

read.c

restaurant.c X

#ir

Users > aditya > Desktop > restaurant.c > fields > item\_no

```
1 #include <stdio.h>
2 #include <string.h>
3 #include <stdlib.h>
4 #include <time.h>
5
6 struct fields{
7     int item_no;
8     char item_name[100];
9     int cost;
10    int quantity;
11 };
12 struct bills{
13     int date;
14     int month;
15     int year;
16     int hour;
17     int minute;
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19     int quantity[10];
20     char item_name[10][100];
21     int price[10];
22     int i;
23 };
24 void add_record(){
25     struct fields inp;
26     FILE *fop;
27     int n;
28     fop= fopen("restaurant.dat","ab");
29     printf("Enter details of items available in the restaurant : \n");
30     printf("-----\n\n");
31     char ch;
32     do{
33         printf("Enter Item no. : ");
34         scanf("%d",&inp.item_no);
35         fflush(stdin);
```

PROBLEMS

TERMINAL

Code - Desktop

FOOD MENU

ITEM NO.	ITEM NAME	COST	QUANTITY
1	Pizza	100	19
2	Burger	80	15
3	Pepsi	40	28
4	Fries	60	18
5	Garlic bread	100	8
6	Oreo shake	90	19
7	Sandwich	70	10
8	Ice cream	40	15
9	Lemon juice	40	15
10	Water	20	10

Hit Enter to continue :



# Deleting an item :

```
C Calculator.c  C files.c  C read.c  C restaurant.c x  C #ir  PROBLEMS  TERMINAL  ...  Code - Desktop + - [ ] [X]
```

Users > aditya > Desktop > C restaurant.c > fields > item\_no

```
1  #include <stdio.h>
2  #include <string.h>
3  #include <stdlib.h>
4  #include <time.h>
5
6  struct fields{
7      int item_no;
8      char item_name[100];
9      int cost;
10     int quantity;
11 };
12 struct bills{
13     int date;
14     int month;
15     int year;
16     int hour;
17     int minute;
18     char customer_name[100];
19     int quantity[10];
20     char item_name[10][100];
21     int price[10];
22     int i;
23 };
24 void add_record(){
25     struct fields inp;
26     FILE *fop;
27     int n;
28     fop= fopen("restaurant.dat","ab");
29     printf("Enter details of items available in the restaurant : \n");
30     printf("-----\n\n");
31     char ch;
32     do{
33         printf("Enter Item no. : ");
34         scanf("%d",&inp.item_no);
35         fflush(stdin);
```

```
DELETE ITEM
-----

Enter the Item no. of item to be deleted : 10

Item no.   : 10
Item name  : Water
Cost       : 20
Quantity   : 10

Delete this item?(y/n) :y

Item successfully deleted from menu !!

Hit Enter to continue.....
```

# Change in the file after deleting ;

Calculator.c files.c read.c restaurant.c #ir

Users > aditya > Desktop > restaurant.c > fields > item\_no

```
1 #include <stdio.h>
2 #include <string.h>
3 #include <stdlib.h>
4 #include <time.h>
5
6 struct fields{
7     int item_no;
8     char item_name[100];
9     int cost;
10    int quantity;
11 };
12
13 struct bills{
14     int date;
15     int month;
16     int year;
17     int hour;
18     int minute;
19     char customer_name[100];
20     int quantity[10];
21     char item_name[10][100];
22     int price[10];
23     int i;
24 };
25
26 void add_record(){
27     struct fields inp;
28     FILE *fop;
29     int n;
30     fop= fopen("restaurant.dat","ab");
31     printf("Enter details of items available in the restaurant : \n");
32     printf("-----\n\n");
33     char ch;
34     do{
35         printf("Enter Item no. : ");
36         scanf("%d",&inp.item_no);
37         fflush(stdin);
```

PROBLEMS TERMINAL ... Code - Desktop

FOOD MENU

ITEM NO.	ITEM NAME	COST	QUANTITY
1	Pizza	100	19
2	Burger	80	15
3	Pepsi	40	28
4	Fries	60	18
5	Garlic bread	100	8
6	Oreo shake	90	19
7	Sandwich	70	10
8	Ice cream	40	15
9	Lemon juice	40	15

Hit Enter to continue :



# Billing :

```
C Calculator.c  C files.c  C read.c  C restaurant.c x  C #ir
Users > aditya > Desktop > C restaurant.c > fields > item_no

1  #include <stdio.h>
2  #include <string.h>
3  #include <stdlib.h>
4  #include <time.h>
5
6  struct fields{
7      int item_no;
8      char item_name[100];
9      int cost;
10     int quantity;
11 };
12 struct bills{
13     int date;
14     int month;
15     int year;
16     int hour;
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18     char customer_name[100];
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20     char item_name[10][100];
21     int price[10];
22     int i;
23 };
24 void add_record(){
25     struct fields inp;
26     FILE *fop;
27     int n;
28     fop= fopen("restaurant.dat","ab");
29     printf("Enter details of items available in the restaurant : \n");
30     printf("-----\n\n");
31     char ch;
32     do{
33         printf("Enter Item no. : ");
34         scanf("%d",&inp.item_no);
35         fflush(stdin);
```

PROBLEMS TERMINAL ... Code - Desktop + - 🗑

-----AVAILABLE TODAY-----

Items	Price
Pizza	₹100
Burger	₹80
Pepsi	₹40
Fries	₹60
Garlic bread	₹100
Oreo shake	₹90
Sandwich	₹70
Ice cream	₹40
Lemon juice	₹40

Enter q when you are done with your order!

Enter item name : Pizza  
Enter quantity : 1

Enter item name : Fries  
Enter quantity : 2

Enter item name : Garlic bread  
Enter quantity : 2

Enter item name : Pepsi  
Enter quantity : 2

Enter item name : q

Your order :  
Pizza × 1  
Fries × 2  
Garlic bread × 2  
Pepsi × 2

Your name? ADITYA SANDEEP

Bill receipt printing and saving :

Calculator.cfiles.cread.crestaurant.c ×#ir

Users > aditya > Desktop > restaurant.c > fields > item\_no

```
1  #include <stdio.h>
2  #include <string.h>
3  #include <stdlib.h>
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5
6  struct fields{
7      int item_no;
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11 };
12 struct bills{
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19     int quantity[10];
20     char item_name[10][100];
21     int price[10];
22     int i;
23 };
24 void add_record(){
25     struct fields inp;
26     FILE *fop;
27     int n;
28     fop= fopen("restaurant.dat","ab");
29     printf("Enter details of items available in the restaurant : \n");
30     printf("-----\n\n");
31     char ch;
32     do{
33         printf("Enter Item no. : ");
34         scanf("%d",&inp.item_no);
35         fflush(stdin);
```

PROBLEMS

TERMINAL

Code - Desktop

\*\*\*\*\*  
RECIEPT  
\*\*\*\*\*  
25/06/2022 12:48 AM  
  
Order for: ADITYA SANDEEP  
  
=====

Item	Price
1 Pizza	₹100
2 Fries	₹120
2 Garlic bread	₹200
2 Pepsi	₹80

-----

SUBTOTAL	₹500
GST@5%	₹25.00

-----

TOTAL	₹525.00
-------	---------

=====

\*\*\*\*\* THANK YOU FOR VISITING \*\*\*\*\*

Enter s to save the bill else Hit enter to exit...

# Changes in the quantity of items after billing :

Calculator.cfiles.cread.crestaurant.c X#ir

Users > aditya > Desktop > restaurant.c > search\_bill()

```
1  #include <stdio.h>
2  #include <string.h>
3  #include <stdlib.h>
4  #include <time.h>
5
6  struct fields{
7      int item_no;
8      char item_name[100];
9      int cost;
10     int quantity;
11 };
12 struct bills{
13     int date;
14     int month;
15     int year;
16     int hour;
17     int minute;
18     char customer_name[100];
19     int quantity[10];
20     char item_name[10][100];
21     int price[10];
22     int i;
23 };
24 void add_record(){
25     struct fields inp;
26     FILE *fop;
27     int n;
28     fop= fopen("restaurant.dat","ab");
29     printf("Enter details of items available in the restaurant : \n");
30     printf("-----\n\n");
31     char ch;
32     do{
33         printf("Enter Item no. : ");
34         scanf("%d",&inp.item_no);
35         fflush(stdin);
```

PROBLEMS

TERMINAL

Code - Desktop

FOOD MENU

ITEM NO.	ITEM NAME	COST	QUANTITY
1	Pizza	100	18
2	Burger	80	15
3	Pepsi	40	26
4	Fries	60	16
5	Garlic bread	100	6
6	Oreo shake	90	19
7	Sandwich	70	10
8	Ice cream	40	15
9	Lemon juice	40	15

Hit Enter to continue :



# Searching a past bill and printing it :

Calculator.cfiles.cread.crestaurant.c X#ir

Users > aditya > Desktop > restaurant.c > search\_bill()

```
1 #include <stdio.h>
2 #include <string.h>
3 #include <stdlib.h>
4 #include <time.h>
5
6 struct fields{
7     int item_no;
8     char item_name[100];
9     int cost;
10    int quantity;
11 };
12 struct bills{
13     int date;
14     int month;
15     int year;
16     int hour;
17     int minute;
18     char customer_name[100];
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23 };
24 void add_record(){
25     struct fields inp;
26     FILE *fop;
27     int n;
28     fop= fopen("restaurant.dat","ab");
29     printf("Enter details of items available in the restaurant : \n");
30     printf("-----\n\n");
31     char ch;
32     do{
33         printf("Enter Item no. : ");
34         scanf("%d",&inp.item_no);
35         fflush(stdin);
```

PROBLEMS TERMINAL

Code - Desktop

SEARCH A BILL

Enter the customer name on the bill : ADITYA SANDEEP

\*\*\*\*\*  
RECIEPT  
\*\*\*\*\*  
25/06/2022 12:48 AM

Order for: ADITYA SANDEEP

Item	Price
1 Pizza	₹100
2 Fries	₹120
2 Garlic bread	₹200
2 Pepsi	₹80
-----	
SUBTOTAL	₹500
GST@5%	₹25.00
-----	
TOTAL	₹525.00
=====	

\*\*\*\*\* THANK YOU FOR VISITING \*\*\*\*\*

Hit enter to continue...