

25K-3026

Asadullah Ishfaq

PF Lab 04 Assignment

Q1

The screenshot displays a C++ IDE with a source file named 'Untitled1.cpp'. The code implements a program that prompts the user to choose a pizza size (1 for Small, 2 for Medium, 3 for Large, or any other number for Invalid). The program uses a switch statement to handle the input. The output window shows the program's execution for four different inputs: 1, 2, 3, and 6. For each input, the program correctly identifies the size and prints the corresponding message. The compilation log at the bottom indicates that the program was successfully compiled into 'Untitled1.exe' with an output size of 128,601,5625 KiB and a compilation time of 0.38s.

```
1 #include<stdio.h>
2 int main() {
3     int size;
4     printf("Choose Pizza Size: ");
5     scanf("%d", &size);
6     switch(size) {
7         case 1: printf("Small Size of Pizza");
8                 break;
9         case 2: printf("Medium Size Of Pizza");
10                break;
11        case 3: printf("Large Size Of Pizza");
12                break;
13        default: printf("Invalid Size");
14    }
15    return 0;
16 }
```

Output Windows:

- Choose Pizza Size: 1
Small Size of Pizza
Process exited after 3.215 seconds with return value 0
Press any key to continue . . .
- Choose Pizza Size: 2
Medium Size Of Pizza
Process exited after 1.837 seconds with return value 0
Press any key to continue . . .
- Choose Pizza Size: 3
Large Size Of Pizza
Process exited after 1.686 seconds with return value 0
Press any key to continue . . .
- Choose Pizza Size: 6
Invalid Size
Process exited after 2.252 seconds with return value 0
Press any key to continue . . .

Compilation Log:

- Output Filename: C:\Users\HP\Downloads\C_Program\Untitled1.exe
- Output Size: 128.6015625 KiB
- Compilation Time: 0.38s

Q2

The screenshot displays a C++ IDE with a source file named 'Untitled1.cpp'. The code implements a program that prompts the user to enter the number of pizzas they want. If the user enters a value greater than 1, the program prints 'Check our multi-pizza deals'. Otherwise, it prints 'Your total is \$8'. The program uses an if-else statement to handle the input. The output window shows the program's execution for two different inputs: 1 and 6. For input 1, the program prints 'Your total is \$8'. For input 6, the program prints 'Check our multi-pizza deals'. The compilation log at the bottom indicates that the program was successfully compiled into 'Untitled1.exe' with an output size of 128,601,5625 KiB and a compilation time of 0.41s.

```
1 #include<stdio.h>
2 int main() {
3     int pizza;
4     printf("how many pizzas you want: ");
5     scanf("%d", &pizza);
6     if(pizza>1) {
7         printf("Check our multi-pizza deals");
8     }
9     else {
10        printf("Your total is $8");
11    }
12    return 0;
13 }
```

Output Windows:

- how many pizzas you want: 1
Your total is \$8
Process exited after 7.082 seconds with return value 0
Press any key to continue . . .
- how many pizzas you want: 6
Check our multi-pizza deals
Process exited after 4.962 seconds with return value 0
Press any key to continue . . .

Compilation Log:

- Output Filename: C:\Users\HP\Downloads\C_Program\PF Q4.exe
- Output Size: 128.6015625 KiB
- Compilation Time: 0.41s

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Q3

The screenshot shows a C++ IDE with the following code for PF Q3:

```
1 #include<stdio.h>
2 int main() {
3     int Number_of_pizzas;
4     printf("How many pizza you want(1, 2, or 3): ");
5     scanf("%d", &Number_of_pizzas);
6     if(Number_of_pizzas==1) {
7         printf("1 pizza costs $8");
8     } else if(Number_of_pizzas==2) {
9         printf("2 pizzas cost $15");
10    } else if(Number_of_pizzas==3) {
11        printf("3 pizzas cost $21");
12    } else {
13        printf("Invalid Number");
14    }
15    return 0;
16 }
```

The execution results for four different inputs are shown in separate windows:

- Input: 1
Output: 1 pizza costs \$8
Process exited after 7.111 seconds with return value 0
- Input: 2
Output: 2 pizzas cost \$15
Process exited after 1.24 seconds with return value 0
- Input: 3
Output: 3 pizzas cost \$21
Process exited after 1.268 seconds with return value 0
- Input: 4
Output: Invalid Number
Process exited after 1.824 seconds with return value 0

Q4

The screenshot shows a C++ IDE with the following code for PF Q4:

```
1 #include<stdio.h>
2 int main() {
3     printf("enter crust type\nRegular Crust=$0\nThin Crust=$1\nStuffed Crust=$2\n");
4     int Base_cost;
5     printf("Enter Base Pizza Cost: ");
6     scanf("%d", &Base_cost);
7     int crust;
8     printf("Enter crust type: ");
9     scanf("%d", &crust);
10    switch(crust) {
11        case 0: printf("Total Cost: %d", Base_cost + 0); break;
12        case 1: printf("Total Cost: %d", Base_cost + 1); break;
13        case 2: printf("Total Cost: %d", Base_cost + 2); break;
14        default: printf("Choose Value Between 1 to 3 ");
15    }
16    return 0;
17 }
```

The execution results are shown in a single window:

```
enter crust type
Regular Crust=$0
Thin Crust=$1
Stuffed Crust=$2
Enter Base Pizza Cost: 10
Enter crust type: 2
Total Cost: 12
Process exited after 4.284 seconds with return value 0
Press any key to continue . . .
```

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Q5

The screenshot shows the Dev-C++ IDE with the file 'PF LAB 4 Q5.cpp' open. The code is as follows:

```
1 #include<stdio.h>
2 int main()
3 {
4     float Cheese;
5     printf("Yes = 1\nNo = 0\nPizza is $8\n");
6     printf("you want extra cheese: ");
7     scanf("%f", &Cheese);
8     if(Cheese==1) {
9         printf("Total cost: %f", 8 + 1.50);
10    } else { printf("Total cost: %f", 8); }
11    return 0;
12 }
```

Two execution windows are shown. The first window shows the output for 'Yes = 1':

```
Yes = 1
No = 0
Pizza is $8
you want extra cheese: 1
Total cost: 9.500000
-----
Process exited after 2.938 seconds with return value 0
Press any key to continue . . .
```

The second window shows the output for 'No = 0':

```
Yes = 1
No = 0
Pizza is $8
you want extra cheese: 0
Total cost: 8.000000
-----
Process exited after 2.135 seconds with return value 0
Press any key to continue . . .
```

The bottom status bar shows the output filename as 'C:\Users\HP\Downloads\C_Program\PF LAB 4 Q5.exe' and the output size as 128.7705078125 K1B.

Q6

The screenshot shows the Dev-C++ IDE with the file 'PF lab Q6.cpp' open. The code is as follows:

```
1 #include<stdio.h>
2 int main() {
3     //float discount;
4     printf("Pizza price is $8\n");
5     float time;
6     printf("Between 11 AM and 2 PM, there is a 10 percent discount.\n");
7     printf("Your purchasing time is:\n ");
8     scanf("%f", &time);
9     float total_discount= 8-(8*0.1);
10    if(time>11 && time<=14 ) {
11        printf("after discount price will be: %f", 8-(8*0.1));
12    } else {
13        printf("price is: 8");
14    }
15    return 0;
16 }
17
18
```

Two execution windows are shown. The first window shows the output for a time of 12:

```
Pizza price is $8
Between 11 AM and 2 PM, there is a 10 percent discount.
Your purchasing time is:
12
after discount price will be: 7.200000
-----
Process exited after 3.155 seconds with return value 0
Press any key to continue . . .
```

The second window shows the output for a time of 9:

```
Pizza price is $8
Between 11 AM and 2 PM, there is a 10 percent discount.
Your purchasing time is:
9
price is: 8
-----
Process exited after 3.645 seconds with return value 0
Press any key to continue . . .
```

The bottom status bar shows the output filename as 'C:\Users\HP\Downloads\C_Program\PF lab Q6.exe' and the output size as 128.7705078125 K1B.

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PF Lab 04 Assignment

Q7

The screenshot shows a C++ IDE with the following code for Q7:

```
1 #include <stdio.h>
2 int main(){
3     int Student_ID;
4     printf("If Students have a Student ID then \nSubtract $2 from total");
5     printf("\nYes = 1");
6     printf("\nNo = 0 ");
7     printf("\nEnter you have Student ID (Y/N): ");
8     scanf("%d",&Student_ID);
9     if(Student_ID == 1) {
10        printf("Your Total cost is $6");
11    }
12    else if (Student_ID == 0) {
13        printf("Your Total cost is $8");
14    }
15    return 0;
16 }
```

The output window shows the execution results for two cases:

Case 1 (Student ID = 1):

```
If Students have a Student ID then
Subtract $2 from total
Yes = 1
No = 0
Enter you have Student ID (Y/N): 1
Your Total cost is $6
-----
Process exited after 1.4 seconds with return value 0
Press any key to continue . . .
```

Case 2 (Student ID = 0):

```
If Students have a Student ID then
Subtract $2 from total
Yes = 1
No = 0
Enter you have Student ID (Y/N): 0
Your Total cost is $8
-----
Process exited after 2.125 seconds with return value 0
Press any key to continue . . .
```

Q8

The screenshot shows a C++ IDE with the following code for Q8:

```
1 #include <stdio.h>
2 int main(){
3     int pizzas;
4     printf("If You order Three Pizzas with Stuffed Crust \nYou can get free garlic bread");
5     int pizza;
6     printf("\nHow many pizzas do you want to order with Stuffed Crust: ");
7     scanf("%d",&pizza);
8     if(pizza == 3) {
9         printf("You get free garlic bread");
10    }
11    else {
12        printf("You cannot get free garlic bread");
13    }
14    return 0;
15 }
```

The output window shows the execution results for two cases:

Case 1 (3 pizzas):

```
If You order Three Pizzas with Stuffed Crust
You can get free garlic bread
How many pizzas do you want to order with Stuffed Crust: 3
You get free garlic bread
-----
Process exited after 2.435 seconds with return value 0
Press any key to continue . . .
```

Case 2 (2 pizzas):

```
If You order Three Pizzas with Stuffed Crust
You can get free garlic bread
How many pizzas do you want to order with Stuffed Crust: 2
You cannot get free garlic bread
-----
Process exited after 2.552 seconds with return value 0
Press any key to continue . . .
```

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Q9

The screenshot displays a C++ IDE with the source code for 'PF LAB Q9.cpp' and three terminal windows showing the program's output for different inputs.

```
1 #include<stdio.h>
2 int main() {
3     printf("Pizza cost is $8\n");
4     printf("delivery = 1 \npickup = 0");
5     printf("\n");
6     int delivery;
7     printf("You want delivery or pickup: ");
8     scanf("%d", &delivery);
9     if(delivery==1) {
10        printf("Total Cost is: %d", 8 + 3);
11    } else if(delivery==0) {
12        printf("Total Cost is: %d", 8);
13    } else {
14        printf("Invalid input");
15    }
16
17    return 0;
18 }
```

Terminal 1 Output:

```
Pizza cost is $8
delivery = 1
pickup = 0
You want delivery or pickup: 1
Total Cost is: 11
-----
Process exited after 2.614 seconds with return value 0
Press any key to continue . . .
```

Terminal 2 Output:

```
Pizza cost is $8
delivery = 1
pickup = 0
You want delivery or pickup: 0
Total Cost is: 8
-----
Process exited after 2.043 seconds with return value 0
Press any key to continue . . .
```

Terminal 3 Output:

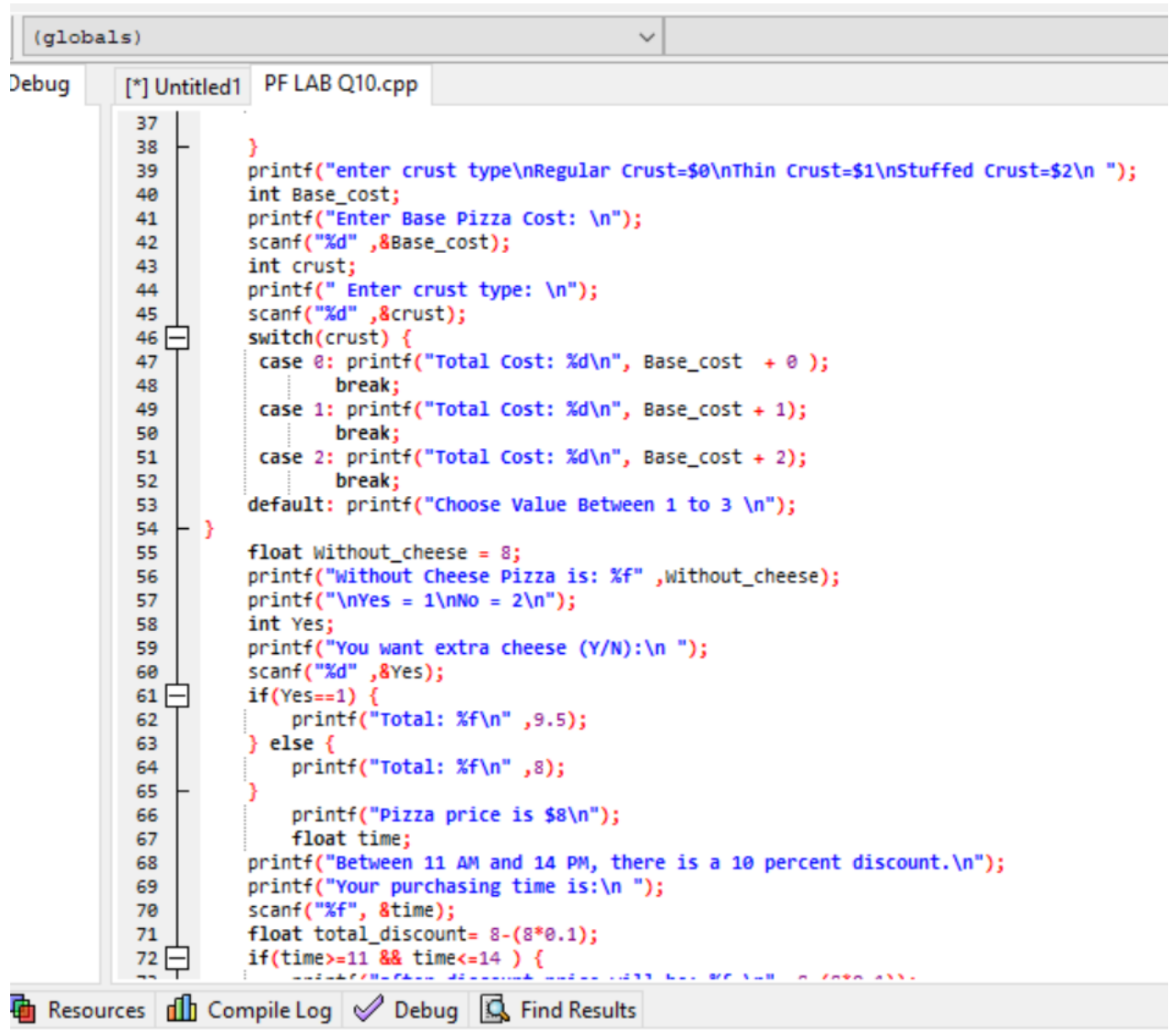
```
Pizza cost is $8
delivery = 1
pickup = 0
You want delivery or pickup: 7
Invalid input
-----
Process exited after 2.26 seconds with return value 0
Press any key to continue . . .
```

Q10 Part 1

The screenshot displays a C++ IDE with the source code for 'PF LAB Q10.cpp'.

```
1 #include<stdio.h>
2 int main() {
3     int size;
4     printf("Choose Pizza Size: \n");
5     printf("1 for small\n");
6     printf("2 for medium\n");
7     printf("3 for large\n");
8     scanf("%d", &size);
9     switch(size) {
10        case 1: printf("Small Size of Pizza\n");
11               break;
12        case 2: printf("Medium Size Of Pizza\n");
13               break;
14        case 3: printf("Large Size Of Pizza\n");
15               break;
16        default: printf("Invalid Size\n"); }
17     int pizza;
18     printf("how many pizzas you want: \n");
19     scanf("%d", &pizza);
20     if(pizza>1) {
21         printf("Check our multi-pizza deals\n");
22     } else {
23         printf("Your total is $8 \n");
24     }
25
26     int Number_of_pizzas;
27     printf("How many pizza you want(1, 2, or 3): \n");
28     scanf("%d", &Number_of_pizzas);
29     if(Number_of_pizzas==1) {
30         printf("1 pizza costs $8 \n");
31     } else if(Number_of_pizzas==2) {
32         printf("2 pizzas cost $15 \n");
33     } else if(Number_of_pizzas==3) {
34         printf("3 pizzas cost $21\n");
35     } else {
36         printf("Invalid Number");
37     }
38 }
```

Q10 Part 2

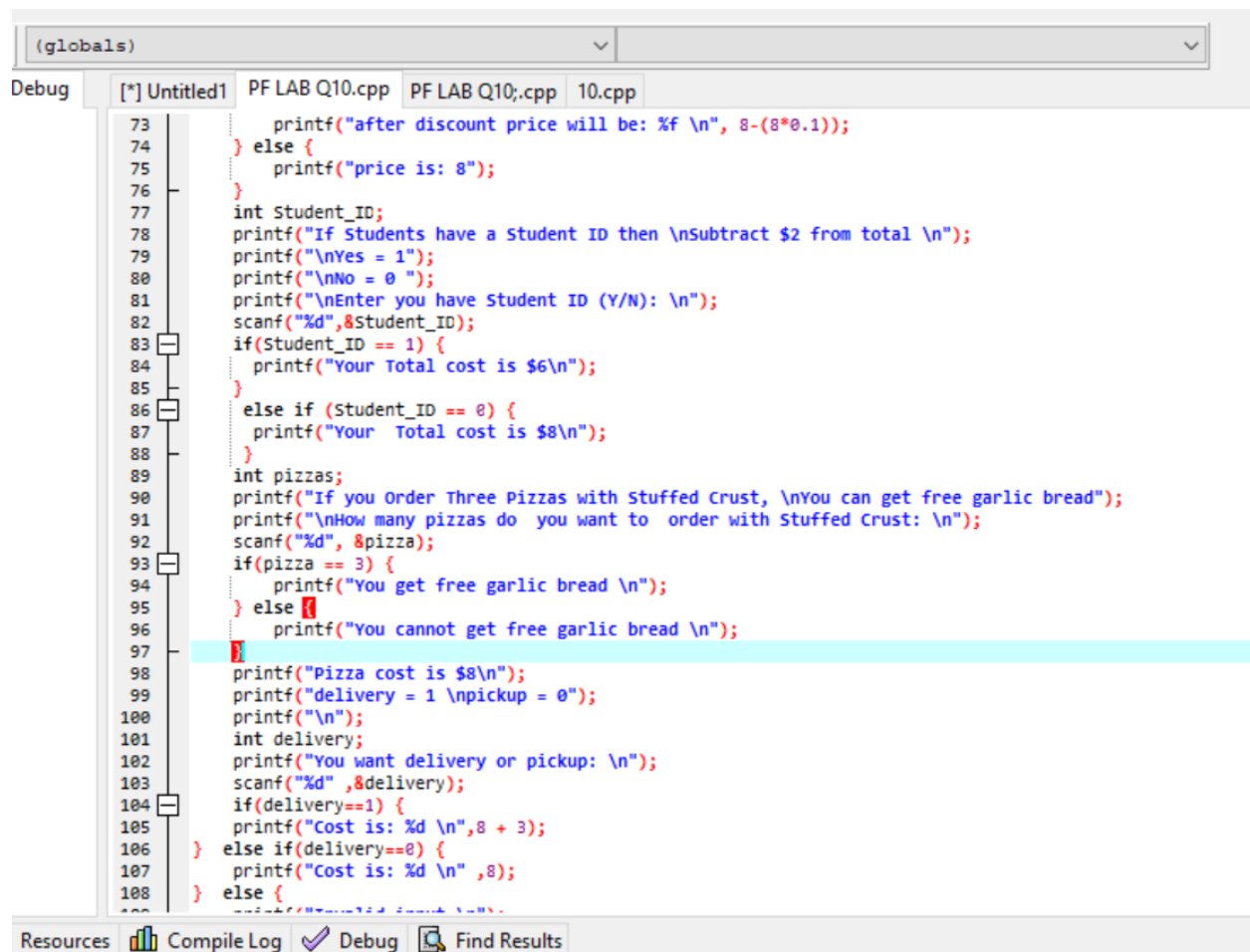


```
(globals)
Debug  [*] Untitled1  PF LAB Q10.cpp




37
38 }
39 printf("enter crust type\nRegular Crust=$0\nThin Crust=$1\nStuffed Crust=$2\n ");
40 int Base_cost;
41 printf("Enter Base Pizza Cost: \n");
42 scanf("%d", &Base_cost);
43 int crust;
44 printf(" Enter crust type: \n");
45 scanf("%d", &crust);
46 switch(crust) {
47     case 0: printf("Total Cost: %d\n", Base_cost + 0 );
48             break;
49     case 1: printf("Total Cost: %d\n", Base_cost + 1);
50             break;
51     case 2: printf("Total Cost: %d\n", Base_cost + 2);
52             break;
53     default: printf("Choose Value Between 1 to 3 \n");
54 }
55 float Without_cheese = 8;
56 printf("Without Cheese Pizza is: %f", Without_cheese);
57 printf("\nYes = 1\nNo = 2\n");
58 int Yes;
59 printf("You want extra cheese (Y/N):\n ");
60 scanf("%d", &Yes);
61 if(Yes==1) {
62     printf("Total: %f\n", 9.5);
63 } else {
64     printf("Total: %f\n", 8);
65 }
66 printf("Pizza price is $8\n");
67 float time;
68 printf("Between 11 AM and 14 PM, there is a 10 percent discount.\n");
69 printf("Your purchasing time is:\n ");
70 scanf("%f", &time);
71 float total_discount= 8-(8*0.1);
72 if(time>=11 && time<=14 ) {
73     printf("After discount price is $7.20\n");
74 }
```

Resources Compile Log Debug Find Results

Q10 Part 3



```
(globals)
Debug  [Untitled1] PF LAB Q10.cpp PF LAB Q10;.cpp 10.cpp
73     printf("after discount price will be: %f \n", 8-(8*0.1));
74 } else {
75     printf("price is: 8");
76 }
77 int Student_ID;
78 printf("If Students have a Student ID then \nSubtract $2 from total \n");
79 printf("\nYes = 1");
80 printf("\nNo = 0 ");
81 printf("\nEnter you have Student ID (Y/N): \n");
82 scanf("%d",&Student_ID);
83 if(Student_ID == 1) {
84     printf("Your Total cost is $6\n");
85 }
86 else if (Student_ID == 0) {
87     printf("Your Total cost is $8\n");
88 }
89 int pizzas;
90 printf("If you Order Three Pizzas with Stuffed Crust, \nYou can get free garlic bread");
91 printf("\nHow many pizzas do you want to order with Stuffed Crust: \n");
92 scanf("%d", &pizza);
93 if(pizza == 3) {
94     printf("You get free garlic bread \n");
95 } else {
96     printf("You cannot get free garlic bread \n");
97 }
98 printf("Pizza cost is $8\n");
99 printf("delivery = 1 \npickup = 0");
100 printf("\n");
101 int delivery;
102 printf("You want delivery or pickup: \n");
103 scanf("%d", &delivery);
104 if(delivery==1) {
105     printf("Cost is: %d \n",8 + 3);
106 } else if(delivery==0) {
107     printf("Cost is: %d \n",8);
108 } else {
109     printf("Cost is: %d \n",8);
110 }
```

Resources  Compile Log  Debug  Find Results

Q10 Part 4

```

95     } else {
96         printf("You cannot get free garlic bread \n");
97     }
98     printf("Pizza cost is $8\n");
99     printf("delivery = 1 \npickup = 0");
100    printf("\n");
101    int delivery;
102    printf("You want delivery or pickup: \n");
103    scanf("%d", &delivery);
104    if(delivery==1) {
105        printf("Cost is: %d \n", 8 + 3);
106    } else if(delivery==0) {
107        printf("Cost is: %d \n", 8);
108    } else {
109        printf("Invalid input \n");
110    }
111    int final_amount;
112    printf("Print Fee Receipt:- \n");
113    printf("Your Final Amount is: %d \n", 11);
114    printf("You got free fries for regular costumer");
115    return 0;
116 }

```

Q10 Output

```

C:\Users\HP\Downloads\C_Program\PF LAB Q10.exe
Choose Pizza Size:
1 for small
2 for medium
3 for large
3
Large Size Of Pizza
How many pizzas you want:
2
Check our multi-pizza deals
How many pizza you want(1, 2, or 3):
2
2 pizzas cost $15
enter crust type
Regular Crust-$0
Thin Crust-$1
Stuffed Crust-$2
Enter Base Pizza Cost:
8
Enter crust type:
1
Total Cost: 9
Without Cheese Pizza is: 8.000000
Yes = 1
No = 2
You want extra cheese (Y/N):
1
Total: 9.500000
Pizza price is $8
Between 11 AM and 14 PM, there is a 10 percent discount.
Your purchasing time is:
13
after discount price will be: 7.200000
If Students have a Student ID then
Subtract $2 from total
Yes = 1
No = 0
Enter you have Student ID (Y/N):
1
Your Total cost is $6
If you Order Three Pizzas with Stuffed Crust,
You can get free garlic bread
How many pizzas do you want to order with Stuffed Crust:
3
You get free garlic bread
Pizza cost is $8
delivery = 1
pickup = 0
You want delivery or pickup:
0
Cost is: 8
Print Fee Receipt:-
Your Final Amount is: 11
You got free fries for regular costumer

```