

PIMPRI CHINCHWAD EDUCATION TRUST'S
PIMPRI CHINCHWAD COLLEGE OF ENGINEERING
 Sector No. 26, Pradhikaran, Nigdi, Pune - 411044

Department Of AS & H.

Year and Course computer engineering 2025-26 PRN No.: 125B1B028.

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This is certify that Shri. Nikhil subhash shinde. has carried out the above mentioned Cpps. Lab. Practicals / Term Work in the AS & H. Department of Pimpri Chinchwad College of Engineering, Pune-44

Date : 30/12/25

Subject Incharge **Head of Department**
 Pimpri Chinchwad College of Engineering
 Applied Sciences & Humanities
 Sector No. 26, Pradhikaran, Nigdi, Pune

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 above mentioned CPPS Practicals / Term Work
 in the AS & H Department of Pimpri Chinchwad College of Engineering, Pune-44.

Date: 30/12/25

Subject Incharge
 Pimpri Chinchwad College of Engineering, Nigdi, Pune-44

Head of Department
 Applied Sciences & Humanitie
 Head of Department of Engineering
 Pimpri Chinchwad College of Engineering, Nigdi, Pune-44



CERTIFICATE OF COMPLETION

Mastering C Language - C Programming For Beginners

Instructors Sara Academy

Certificate no: UC-5054bdbb-d5fa-42cf-9610-a1a0a7b5ef94
Certificate url: ude.my/UC-5054bdbb-d5fa-42cf-9610-a1a0a7b5ef94
Reference Number: 0004

Nikhil shinde

Date Dec. 6, 2025
Length 2 total hours

Activities ▾ Text Editor ▾

Oct 7 10:57 AM

The screenshot shows a mobile application interface with a dark theme. At the top, there are icons for saving, opening, and closing the document. The title bar displays "bill.c" and "untitled Document 1". The main area contains the following C code:

```
#include <stdio.h>
int main()
{
    printf("***** ELECTRICITY BILL *****\n");
    char name[10];
    int custID;
    float units;
    float bill;
    printf("Enter customer's name: ");
    scanf("%s", name);
    printf("Enter customer ID: ");
    scanf("%d", &custID);
    printf("Enter units consumed: ");
    scanf("%f", &units);
    if (units <= 100) {
        bill = units * 10;
        printf("The total bill is: %.2f\n", bill);
    }
    else if (units > 100 & units <= 200) {
        bill = (100 * 10) + ((units - 100) * 15);
        printf("The total bill is: %.2f\n", bill);
    }
    else {
        bill = (100 * 10) + ((100 * 15) + ((units - 200) * 20));
        printf("The total bill is: %.2f\n", bill);
    }
    printf("\n===== BILL SUMMARY =====\n");
    printf("Customer Name: %s\n", name);
    printf("Customer ID: %d\n", custID);
    printf("Units Consumed: %.2f\n", units);
    printf("Total Bill Amount: Rs%.2f\n", bill);
}
return ;
```

*Untitled Document 1

positive.c

even.c

largest.c

negative.c

bill.c

odd.c

oddEven.c

C ▾ Tab Width: 8 ▾ Ln 29, Col 1

INS

(-)

Activities Terminal ▾



Oct 7 10:57 AM

pccoe@pccoe-HP-280-G2-MT: ~/Documents

```
pccoe@pccoe-HP-280-G2-MT: $ cd Documents  
pccoe@pccoe-HP-280-G2-MT: ~/Documents $ gcc bill.c -o bill  
pccoe@pccoe-HP-280-G2-MT: ~/Documents $ ./bill
```

***** ELECTRICITY BILL *****

Enter customer's name: sam

Enter customer ID: 122345

Enter units consumed: 250

The total bill is: 500.00

===== BILL SUMMARY =====

Customer Name: sam

Customer ID: 122345

Units Consumed: 250.00

Total Bill Amount: RS500.00

```
pccoe@pccoe-HP-280-G2-MT: ~/Documents $
```

Activities Terminal

Oct 7 16:41

pccoe@pccoe: ~/Documents

```
pccoe@pccoe: ~/Documents$ gcc electricity.c -o electricity  
pccoe@pccoe: ~/Documents$ ./electricity
```

```
Enter the Name:Nikhil
```

```
Enter customerId:975
```

```
Enter units consumed:36
```

```
---Electricity Bill---
```

```
customer ID : 975
```

```
customer NAME : Nikhil
```

```
units consumed : 36.00
```

```
Total Bill : 54.00
```

```
pccoe@pccoe: ~/Documents$
```

Activities Text Editor ▾

Oct 7 11:00 AM

Text Editor ▾

Open ▾ I+

even.c Positive.c largest.c Untitled Document 1 bill.c railway.c

#include <stdio.h>

```
int main()
{
    printf("\n*****RAILWAY TICKET BOOKING*****\n");
    printf("\n Class Types: \n S - Sleeper : Rs150.50 \n A - AC Class : Rs350.75 \n G - General : Rs100.00 \n");

    int seat;
    char class;
    int tickets;
    float s = 150.50;
    float a = 350.75;
    float g = 100.00;

    printf("\n Enter Seat Number: ");
    scanf("%d", &seat);

    printf("\n Enter Class Type(S/A/G): ");
    scanf("%c", &class);

    printf("\n Enter number of tickets: ");
    scanf("%d", &tickets);

    printf("\n=====TICKET DETAILS=====\n");
    printf(" Seat no : %d\n", seat);
    printf(" Tickets : %d\n", tickets);

    float price;

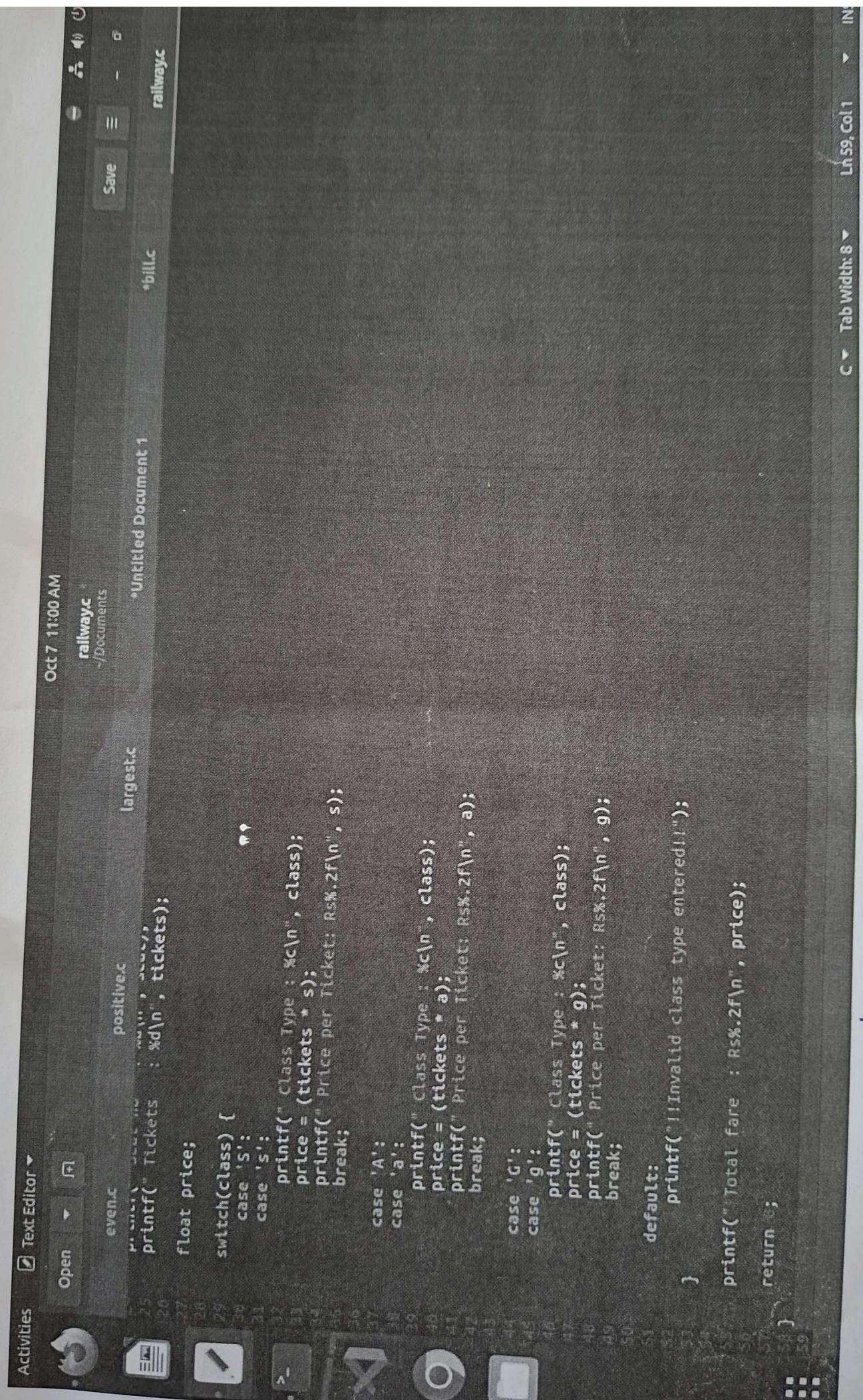
    switch(class) {
        case 'S':
        case 's':
            printf(" Class Type : %c\n", class);
            price = (tickets * s);
            printf(" Price per Ticket: Rs%.2f\n", s);
            break;
    }
}
```

Save

Ln 59, Col 1 ▾ INS

Tab Width: 8 ▾

②



Activities Terminal



R

Nov 12 15:05

pccoe@pccoe-V50t-Gen-2-131OB: ~/Documents

```
pccoe@pccoe-V50t-Gen-2-131OB: ~/Documents$ gcc matrix.c -o matrix  
pccoe@pccoe-V50t-Gen-2-131OB: ~/Documents$ ./matrix  
Enter number of row and column :
```

Enter the matrix A

```
3 3 3  
3 3 3  
3 3 3  
Addition
```

6 6

6 6

Multiplication

18 18

18 18

18 18

pccoe@pccoe-V50t-Gen-2-131OB: ~/Documents\$



```
1 #include<stdio.h>
2 int main(){
3     int n,i,a,found=0;
4     printf("Enter no. of elements: ");
5     scanf("%d",&n);
6     int arr[n];
7     for(i=0;i<n;i++){
8         scanf("%d",&arr[i]);
9     }
10    printf("Enter the element you want to find: ");
11    scanf("%d",&a);
12
13    for(i=0;i<n;i++){
14        if(arr[i]==a){
15            found=1;
16            break;
17        }
18    }
19
20    if(found==1){
21        printf("Element found %d in the position is %d",a,i);
22    }
23    else{
24        printf("Entered element not found");
25    }
26
27
28
29
30 }
```

```
pccoe@pccoe-V50t-Gen-2-13I0B: ~$ cd Documents  
pccoe@pccoe-V50t-Gen-2-13I0B: ~/Documents$ gcc linear.c -o linear  
pccoe@pccoe-V50t-Gen-2-13I0B: ~/Documents$ ./linear  
Enter number of rows and columns: 2  
Enter 4 elements: 1  
2  
3  
4  
Enter elements to search: 3  
Element 3 found at row 2 and column 1pccoe@pccoe-V50t-Gen-2-13I0B: ~/Documents$
```

```

1 #include<stdio.h>
2 int main(){
3     int arr[20][20];
4     int r,c,i,j,num;
5     int found=0;
6
7     printf("Enter number of rows and columns: ");
8     scanf("%d %d", &r, &c);
9
10    printf("Enter elements: ",r*c);
11    for (i=0;i<r;i++){
12        for(j=0;j<c;j++){
13            scanf("%d",&arr[i][j]);
14        }
15    }
16
17    printf("Enter elements to search: ");
18    scanf("%d",&num);
19
20    for(i=0;i<r;i++){
21        for(j=0;j<c;j++){
22            if(arr[i][j]==num){
23                found=1;
24                break;
25            }
26        }
27    }
28
29    if(found==1){
30        printf("Element found at row %d and column %d", num, i+1);
31    }
32    else {
33        printf("Element not found");
34    }
35
36
37    return 0;
38 }
```

```
pccoe@pccoe-V50t-Gen-2-13I0B: ~$ cd Documents  
pccoe@pccoe-V50t-Gen-2-13I0B: ~/Documents$ gcc linear.c -o linear  
Enter no of elements: 5  
1 2 3 4 5
```

```
Enter the element you want to find: 7  
Entered element not foundpccoe@pccoe-V50t-Gen-2-13I0B: ~/Documents$ ./linear  
Enter no of elements: 5  
1 2 3 4 5
```

```
Enter the element you want to find: 3  
Entered element not foundpccoe@pccoe-V50t-Gen-2-13I0B: ~/Documents$ ./linear  
Element found 3 in the position is 2pccoe@pccoe-V50t-Gen-2-13I0B: ~/Documents$
```

R
R

Activities



Dec 10 14:34

File Browser

strc

~Documents



> pccode211



Activities Text Editor

File Browser

Open

Untitled



pccoe211



Screenshot captured

You can paste the image from the clipboard.

```
28 scanf("%f" , &s[t].percentage);
29
30 }
31
32 for( t = 0 ; t < n ; t++) {
33     temp = s[t];
34     j = t-1;
35
36     while( j>0 && s[j].percentage < temp.percentage);
37     {
38         s[j+1] = s[j];
39         j--;
40     }
41     s[j+1] = temp;
42 }
43 printf("\nStudents sorted by percentage:\n");
44 for( t = 0 ; t<n ; t++)
45 {
46     printf("%d\t%s\t%.2f\n",s[t].roll , s[t].name, s[t].percentage);
47 }
48
49 printf("Enter the roll no to search");
50 scanf("%d" , &searchRoll);
51
52 for( t = 0; t<n ; t++)
53 {
54     if( s[t].roll == searchRoll) {
55         printf("\nStudent found:\n");
56         printf("\nRoll no : %d\n" ,s[t].roll);
57         printf("\n name : %s\n" ,s[t].name);
58         printf("Percentage: %.2f\n" ,s[t].percentage);
59         found = 1;
60     }
61     break;
62 }
63
64
65 if(!found) {
66     printf("\nRoll not found %d \n" , searchRoll);
67 }
68 return 0;
69 }
```

C ~ Tab Width: 10 ~

Activities Terminal



Dec 10 14:33

Terminal

```
pccoe211@pc23211:~$ cd Documents
pccoe211@pc23211:~/Documents$ gcc str.c -o str
pccoe211@pc23211:~/Documents$ ./str
Enter the no of student:4
student 1Roll NO :1
Name:Nikhil
Percentage:79
student 2Roll NO :2
Name:Om
Percentage:80
student 3Roll NO :3
Name:Piyush
Percentage:67
student 4Roll NO :4
Name:Aniket
Percentage:70
```

students sorted by percentage:

2	Om	80.00
1	Nikhil	79.00
4	Aniket	70.00
3	Piyush	67.00

Enter the roll no to search4

Student found:

Roll no : 4

name : Aniket
Percentage: 70.00
pccoe211@pc23211:~/Documents\$ █

```
1 #include <stdio.h>
2 #include <string.h>
3
4 #define MAX 100
5
6 int queue[MAX];
7 int front = 0, rear = -1;
8
9 int main() {
10     char command[20];
11     int order;
12
13     while (scanf("%s", command) != EOF) {
14
15         if (strcmp(command, "ENQUEUE") == 0) {
16             scanf("%d", &order);
17             if (rear < MAX - 1) {
18                 queue[++rear] = order;
19                 printf("Order %d added to queue\n", order);
20             }
21         }
22
23     else if (strcmp(command, "DEQUEUE") == 0) {
24         if (front > rear) {
25             printf("Queue is empty\n");
26         } else {
27             printf("Order %d processed\n", queue[front]);
28             front++;
29         }
30     }
31 }
```



```
10
11     queue[rear] = order;
12     printf("Order %d added to queue\n", order);
13 }
14
15 else if (strcmp(command, "DEQUEUE") == 0) {
16     if (front > rear) {
17         printf("Queue is empty\n");
18     } else {
19         printf("Order %d processed\n", queue[front]);
20         front++;
21     }
22 }
23
24 else if (strcmp(command, "STATUS") == 0) {
25     if (front > rear) {
26         printf("Queue is empty\n");
27     } else {
28         printf("Next order: %d\n", queue[front]);
29     }
30 }
31
32 else if (strcmp(command, "CLEAR") == 0) {
33     if (front > rear) {
34         printf("Queue is empty\n");
35     } else {
36         printf("Next order: %d\n", queue[front]);
37     }
38 }
39
40 return 0;
41
42
43 }
```

Line: 1 Col: 1

Upload code as file

Test against custom input

Run Code Submit Code



Line: 1 Col: 1

10:07 PM
29-12-2025

Upload Code as File Test against custom input

Submit Code

Run Code

Testcase 0 ✓ Testcase 1 ✓ Testcase 2 ✓ Testcase 3 ✓ Testcase 4 ✓ Testcase 5 ✓ Testcase 6 ✓ Testcase 7 ✓

Congratulations, you passed the sample test case.

Click the Submit Code button to run your code against all the test cases.

Input (stdin)

```
ENQUEUE 101  
ENQUEUE 102  
DEQUEUE  
STATUS  
DEQUEUE
```

Your Output (stdout)

```
Order 101 added to queue  
Order 101 added to queue  
Order 101 processed  
Next order: 102  
Order 102 processed
```

Expected Output

```
Order 101 added to queue  
Order 102 added to queue  
Order 101 processed  
Next order: 102  
Order 102 processed
```

10:07 PM
29-12-2025



```
hackerrank.com/contests/assignment-11-1765946757/challenges/assignment-cppslab-group-b-1

19
20 *int cmpGenre(const void *a, const void *b) {
21     return strcmp(((struct Book *)a)->genre, ((struct Book *)b)->genre);
22 }
23
24 *int cmpYear(const void *a, const void *b) {
25     return ((struct Book *)a)->year - ((struct Book *)b)->year;
26 }
27
28 *int main() {
29     int n, s;
30     scanf("%d", &n);
31     struct Book books[n];
32
33     for (int i = 0; i < n; i++) {
34         scanf("%s %d", books[i].title, books[i].author, books[i].genre, &books[i].year);
35     }
36
37     scanf("%d", &s);
38
39     if (s == 1)
40         qsort(books, n, sizeof(struct Book), cmpTitle);
41     else if (s == 2)
42         qsort(books, n, sizeof(struct Book), cmpAuthor);
43     else if (s == 3)
44         qsort(books, n, sizeof(struct Book), cmpGenre);
45     else if (s == 4)
46         qsort(books, n, sizeof(struct Book), cmpYear);
47
48     for (int i = 0; i < n; i++) {
49         printf("%s %s %d\n", books[i].title, books[i].author, books[i].genre, books[i].year);
50     }
51
52
53     return 0;
54 }
```

```
22
23
24    else if (strcmp(line, "POP", 3) == 0) {
25        if (top == -1) {
26            printf("Cart is empty\n");
27        } else {
28            printf("%s removed from cart\n", stack[top]);
29            top--;
30        }
31    }
32
33    else if (strcmp(line, "PEEK", 4) == 0) {
34        if (top == -1) {
35            printf("Cart is empty\n");
36        } else {
37            printf("Top item: %s\n", stack[top]);
38        }
39    }
40
41    else if (strcmp(line, "CHECKOUT", 8) == 0) {
42        if (top == -1) {
43            printf("Cart is empty\n");
44        } else {
45            while (top != -1) {
46                printf("Processing %s\n", stack[top]);
47                top--;
48            }
49        }
50    }
51}
52}
53
54    return 0;
55}
56}
```

Congratulations, you passed the sample test case.
Click the Submit Code button to run your code against all the test cases.

Input (stdin)

```
PUSH Laptop  
PUSH Mouse  
POP  
PEEK  
CHECKOUT
```

Your Output (stdout)

```
Laptop added to cart  
Mouse added to cart  
Mouse removed from cart  
Top item: Laptop  
Processing Laptop
```

Expected Output

```
Laptop added to cart  
Mouse added to cart  
Mouse removed from cart  
Top item: Laptop  
Processing Laptop
```

5

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