

## Experiment 1

```
PS C:\Users\Pratik Patil\OneDrive\Desktop\OOC all practicals Roll No 142> g++ ex1.cpp
PS C:\Users\Pratik Patil\OneDrive\Desktop\OOC all practicals Roll No 142> ./a.exe
enter your roll no:12
enter your name:om
enter your marks:89
your roll no is 12
your name is om
your marks is 89
PS C:\Users\Pratik Patil\OneDrive\Desktop\OOC all practicals Roll No 142> |
```

## Experiment 2

```
enter the real part of 1st complex no:
12
enter the imaginary part of 1st complex no:
13
enter the real part of 2nd complex no:
14
enter the imaginary part of 2nd complex no:
14
addition of complex no: 26+27i
```

## Experiment 3

```
[Savings Account]
Account Holder: Alice
Account Number: 1001
Balance: 5000
Interest Rate: 3%
Deposited: 1000
Withdrawn: 2000
Interest Applied: 120

[Savings Account]
Account Holder: Alice
Account Number: 1001
Balance: 4120
Interest Rate: 3%

[Checking Account]
Account Holder: Bob
Account Number: 1002
Balance: 3000
Transaction Fee: 20
Deposited: 1500
Withdrawn: 1000 (20 fee applied)

[Checking Account]
Account Holder: Bob
Account Number: 1002
Balance: 3480
Transaction Fee: 20
```

## Experiment 4

```
0
200
```

## Experiment 5

```
enter side of square: 12
enter length and breadth of rectangle: 12
10
enter radius of circle: 4
enter base and height of triangle: 15
10

*****
area of square is: 144
area of rectangle is: 120
area of circle is: 50.24
area of triangle is: 75
```

## Experiment 6

```
Enter No. of Students You Want?: 2
Enter Roll No. : 12
Enter Student Name : Pratik
Enter Marks for Subject 1 : 89
Enter Marks for Subject 2 : 88
Enter Marks for Subject 3 : 90
Enter Marks for Subject 4: 78
Enter Marks for Subject 5: 91
Enter Marks for Subject 6: 92

Roll No. : 12
Student Name : Pratik

Marks of Subject 1 : 89
Marks of Subject 2 : 88
Marks of Subject 3 : 90
Marks of Subject 4 : 78
Marks of Subject 5 : 91
Marks of Subject 6 : 92

Total Percentage : 88
```

```
Enter Roll No. : 13
Enter Student Name : Sanil
Enter Marks for Subject 1 : 89
Enter Marks for Subject 2 : 78
Enter Marks for Subject 3 : 90
Enter Marks for Subject 4: 78
Enter Marks for Subject 5: 100
Enter Marks for Subject 6: 99

Roll No. : 13
Student Name : Sanil

Marks of Subject 1 : 89
Marks of Subject 2 : 78
Marks of Subject 3 : 90
Marks of Subject 4 : 78
Marks of Subject 5 : 100
Marks of Subject 6 : 99

Total Percentage : 89
```

#### Book Details:

Title: The Alchemist

Author: Paulo Coelho

Pages: 250

#### Magazine Details:

Title: Time Magazine

Author: Various Authors

Publication Date: 2022-01-01

## Experiment 7

```
This is a vehicle  
This is a four wheeler  
This four wheeler vehicle is car
```

```
This is a Vehicle  
Fare of Vehicle  
This Vehicle is a Bus with Fare
```

## Experiment 8

```
Unary - operator: -10  
Binary + operator: 15  
Binary - operator: 5  
Relational == operator: 0  
Relational != operator: 1  
Relational > operator: 1  
Relational < operator: 0  
Relational >= operator: 1  
Relational <= operator: 0
```

## Experiment 9

```
Enter Real Part 12
Enter Imaginary Part j
The complex object is 12+ij
```

## Experiment 10

```
area :153.934
perimeter :43.981
Rectangle:
area :33.6
perimeter :24.4
triangle :
area :5.8657
perimeter :11.2
```



## Experiment 11

```
Enter employee number: 101
Enter employee name: Pratik
Enter employee monthllysalary: 100000

Enter employee number: 102
Enter employee name: Parshvi
Enter hours: 10
Enter hourly rate: 500

Enter employee number: 103
Enter employee name: Sanil
Enter salary: 90000
Enter overtime: 4

Salaried Employee:
Employee Number is 101
Employee Name is Pratik
Salary: 100000

HourlyEmployee:
Employee Number is 102
Employee Name is Parshvi
Hours: 10
Hourly rate: 500
Salary: 5000

CommissionedEmployee:
Employee Number is 103
Employee Name is Sanil
Salary: 90000
Overtime: 4
Total Salary: 90060
```

## Experiment 12

```
hello
world
```

## Experiment 13

Division by zero error!

```
Enter the two numbers :  
12  
10  
x/y=1  
PS C:\Users\Pratik Patil\OneDrive\Desktop\OOC all practicals Roll No 142> g++ exp13b.cpp  
PS C:\Users\Pratik Patil\OneDrive\Desktop\OOC all practicals Roll No 142> ./exp13b.exe  
Enter the two numbers :  
12  
0  
Attempted to divide by zero!  
PS C:\Users\Pratik Patil\OneDrive\Desktop\OOC all practicals Roll No 142> █
```

## Experiment 14

```
Max of 39 and 20 is 39  
Max of 13.5 and 20.7 is 20.7  
Max of Hello and World is World
```

```
12  
45  
8  
6
```



```
Vector elements are:  
10  
20  
30  
40  
50
```

## Experiment 15(Mini Project)

Project Name: Super Market Billing System

```
=== Supermarket Billing System ===
```

```
1. Manage Inventory  
2. Billing (Create new bill)  
3. Load inventory from file  
4. Save inventory to file  
0. Exit
```

```
Choose option: 1
```

```
--- Inventory Management ---
```

```
1. Add item  
2. Update item  
3. Remove item  
4. Show all items  
0. Back
```

```
Choose: 1
```

```
Enter ID: 12
```

```
Enter name: milk
```

```
Enter price: 70
```

```
Enter stock: 2
```

```
Item added successfully.
```

```
--- Inventory Management ---
```

```
1. Add item  
2. Update item  
3. Remove item  
4. Show all items  
0. Back
```

```
Choose: 1
```

```
Enter ID: 13
```

```
Enter name: bread
```

```
Enter price: 30
```

```
Enter stock: 5
```

```
Item added successfully.
```

--- Inventory Management ---

1. Add item
2. Update item
3. Remove item
4. Show all items
0. Back

Choose: 0

=== Supermarket Billing System ===

1. Manage Inventory
2. Billing (Create new bill)
3. Load inventory from file
4. Save inventory to file
0. Exit

Choose option: 2

Enter cashier name: Sanil Anna

--- Billing Menu ---

1. Add item to bill
2. Show subtotal
3. Print receipt
0. Cancel

Choose: 1

Enter item ID: 12

Found: milk | Price: 70 | Stock: 2

Enter quantity: 2

Added to bill.

--- Billing Menu ---

1. Add item to bill
2. Show subtotal
3. Print receipt
0. Cancel

Choose: 2

3. Print receipt

0. Cancel

Choose: 2

```
0. Cancel
Choose: 2
Choose: 2
Subtotal: 140.00
Subtotal: 140.00
```

```
--- Billing Menu ---
```

```
1. Add item to bill
2. Show subtotal
3. Print receipt
3. Print receipt
0. Cancel
0. Cancel
Choose: 3
Choose: 3
```

```
----- RECEIPT -----
```

```
Cashier: Sanil Anna    Date: Tue Nov 11 12:11:21 2025
```

```
----- RECEIPT -----
```

```
Cashier: Sanil Anna    Date: Tue Nov 11 12:11:21 2025
```

ID	Name	Price	Qty	Total
-----				
12	milk	70.00	2	140.00
-----				
Subtotal:				140.00
Discount:				0.00
Tax:				7.00
Total:				147.00

```
-----
-----
Thank you for shopping with us!
```

=== Supermarket Billing System ===

1. Manage Inventory
2. Billing (Create new bill)
3. Load inventory from file
4. Save inventory to file
0. Exit

Choose option: 3

Enter filename (default inventory.csv): a.csv

Failed to load.

=== Supermarket Billing System ===

1. Manage Inventory
2. Billing (Create new bill)
3. Load inventory from file
4. Save inventory to file
0. Exit

Choose option: 3

Enter filename (default inventory.csv): a.csv

Loaded successfully.

=== Supermarket Billing System ===

1. Manage Inventory
2. Billing (Create new bill)
3. Load inventory from file
4. Save inventory to file
0. Exit

Choose option: 1p

--- Inventory Management ---

1. Add item
2. Update item
3. Remove item
4. Show all items
0. Back

Choose: 1

Enter ID: 11

Enter name: MILK

```
Enter price: 50
Enter stock: 3
Item added successfully.
```

```
--- Inventory Management ---
```

- 1. Add item
- 2. Update item
- 3. Remove item
- 4. Show all items
- 0. Back

```
Choose: 1
```

```
Enter ID: 14
```

```
Enter name: Sanil
```

```
Enter price: 78
```

```
Enter stock: 4
```

```
Item added successfully.
```

```
--- Inventory Management ---
```

- 1. Add item
- 2. Update item
- 3. Remove item
- 4. Show all items
- 0. Back

```
Choose: 4
```

ID	Name	Price	Stock
-----			
11	MILK	50.00	3
14	Sanil	78.00	4

```
--- Inventory Management ---
```

- 1. Add item
- 2. Update item
- 3. Remove item
- 4. Show all items
- 0. Back

```
Choose: 3
```

```
Enter ID to remove: 14
```

Enter ID to remove: 14

Item removed.

--- Inventory Management ---

1. Add item
2. Update item
3. Remove item
4. Show all items
0. Back

Choose: 4

ID	Name	Price	Stock
-----			
11	MILK	50.00	3

--- Inventory Management ---

1. Add item
2. Update item
3. Remove item
4. Show all items
0. Back

Choose: 1

Enter ID: 16

Enter name: Bread

Enter price: 40

Enter stock: 2

Item added successfully.

--- Inventory Management ---

1. Add item
2. Update item
3. Remove item
4. Show all items
0. Back

Choose: 0



=== Supermarket Billing System ===

1. Manage Inventory
2. Billing (Create new bill)
3. Load inventory from file
4. Save inventory to file
0. Exit

Choose option: 2

Enter cashier name: Pratik

--- Billing Menu ---

1. Add item to bill
2. Show subtotal
3. Print receipt
0. Cancel

Choose: 1

Enter item ID: 12

Item not found.

--- Billing Menu ---

1. Add item to bill
2. Show subtotal
3. Print receipt
0. Cancel

Choose: 11

Invalid option.

--- Billing Menu ---

1. Add item to bill
2. Show subtotal
3. Print receipt
0. Cancel

Choose: 16

Invalid option.

--- Billing Menu ---

1. Add item to bill

2. Show subtotal

3. Print receipt

0. Cancel

Choose: 1

Enter item ID: 11

Found: MILK | Price: 50.00 | Stock: 3

Enter quantity: 3

Added to bill.

--- Billing Menu ---

1. Add item to bill

2. Show subtotal

3. Print receipt

0. Cancel

Choose: 3

----- RECEIPT -----

Cashier: Pratik    Date: Tue Nov 11 12:18:10 2025

ID	Name	Price	Qty	Total
----	------	-------	-----	-------

11	MILK	50.00	3	150.00
----	------	-------	---	--------

Subtotal:	150.00
-----------	--------

Discount:	0.00
-----------	------

Tax:	7.50
------	------

Total:	157.50
--------	--------

-----  
Thank you for shopping with us!

=== Supermarket Billing System ===

1. Manage Inventory
2. Billing (Create new bill)
3. Load inventory from file
4. Save inventory to file
0. Exit

Choose option: 3

Enter filename (default inventory.csv): a.csv

Loaded successfully.

=== Supermarket Billing System ===

1. Manage Inventory
2. Billing (Create new bill)
3. Load inventory from file
4. Save inventory to file
0. Exit

Choose option: █