

Understanding Dynamic Construction and Destruction of Objects, and Operator Overloading

Design and implement a C++ program to model **Flats**. Each Flat is described by its **built-up area**, **number of bedrooms**, and **number of bathrooms**.

Program Requirements

1. Class Definition

1. Class Definition

- Define a class `Flat` with the following private data members:
 - `area` (in square feet)
 - `bedrooms`
 - `bathrooms`

2. Constructors

- Provide:
 - A **default constructor** to initialize all values to zero.
 - Any other necessary constructor based on the requirement.

3. Member Functions

- A function to set user specified Flat details for created Flat objects.
- A function to **calculate and return the Flat value** based on:
$$\text{value} = \text{area} + (\text{bedrooms} * 100) + (\text{bathrooms} * 50)$$
- A function to **display** Flat details and computed value.
- A friend function to total built area of the apartment.

4. Operator Overloading

Implement the following operator overloading operations:

- **+** (Addition Operator)
- **>=** (Equality Operator)
- **<<** (Output Operator)

5. Operations to demonstrate:

- a. Creation of an apartment with multiple Flats using default constructors
- b. Populating the data members using copy constructors

Return Boolean values True /False for c and d

- c. Combine two Flat objects by adding their corresponding attributes (area, bedrooms, and bathrooms) and return a new Flat object representing a merged apartment.
- d. Compare two Flats to check whether the attributes of one flat are greater than or equal to the other.
- e. Display the Apartment details (details of all the created Flat objects).