

Real World Python Problems on Operator Overloading

1. Create a class to represent complex numbers and overload the '+' operator to add two complex numbers.
2. Implement a `Time` class that overloads '+' to add two time durations.
3. Overload '>' operator to compare two `Employee` objects based on salary.
4. Design a `Vector` class to perform vector addition using '+' operator.
5. Implement a `Matrix` class that allows '+' operator to add matrices.
6. Create a `BankAccount` class that overloads '+' to combine balances of two accounts.
7. Overload '*' operator to multiply two polynomials represented by a class.
8. Define a `ShoppingCart` class and overload '+' to add item prices.
9. Implement a `Temperature` class that supports '-' operator to find temperature difference.
10. Create a `Distance` class that supports comparison operators like '>', '<' based on kilometers.
11. Design a `Point` class and overload '+' to move point location.
12. Overload '==' to compare two user accounts based on username and email.
13. Create a `StringBuilder` class that overloads '+' to append text.
14. Implement a `Score` class and overload '+=' to add score points.
15. Overload '/' operator in a `Fraction` class to divide fractions.
16. Implement a `Currency` class that adds different currency types after conversion.
17. Design a `Rectangle` class that overloads '==' to compare area equality.
18. Overload the 'in' operator in a `CustomList` class to search for elements.
19. Create a `GamePlayer` class that overloads '+' to combine player stats.
20. Implement a `Book` class that overloads '<' to compare book prices.