**Vending Machine for Books Using OOP**

In this overview, we will describe how to design a vending machine for books using object-oriented programming (OOP) in Java. We'll focus on the main components and their interactions.

**Design Overview**

Create a Book class to represent a book with attributes such as title, author, price, and stock. It can have methods for accessing and updating these attributes.

Create a VendingMachine class to manage the inventory of books, user balance, and purchase transactions.

Implement methods in the VendingMachine class for adding books, checking the stock, depositing money, and purchasing books.

Book Class

**VendingMachine Class**

The VendingMachine class manages the inventory of books, user balance, and purchase transactions. It should have methods for:

* Adding a book to the inventory.
* Checking the stock of a specific book.
* Depositing money to the user's balance.
* Purchasing a book, updating the stock, and deducting the price from the user's balance.
* Displaying available books.

**VendingMachine Class Methods**

**addBook (Book book)** Adds a book to the inventory.

**checkStock(String title)** Returns the stock of a specific book.

**depositMoney(double amount):** Adds money to user’s balance

**purchaseBook(String title**): Purchases a book updating the stock and deducting the price from the user’s balance

**displayBooks():** Displays the available books in the inventory.