Vending Machine OOP Assignment

This assignment is a chance to **practice and show your understanding of object-oriented programming (OOP)**. The goal isn't just to make a working program, it's to think like a developer: organize your code, use classes logically, and make your solution clean and readable.

Your task is to simulate a vending machine. No graphical interface is needed; all interaction happens through the command prompt.

Using **Python** is very much appreciated as we use it all the time 😊

Important: You may **use AI as a guide or tutor** to understand concepts, clarify ideas, or get tips, but **AI must not produce code for you**. The code you submit must be your own work.

What to Include
- **At least three classes**, for example: vending machine, drinks, stock
- Drinks with different prices
- Machine actions:
  - User selects a drink
  - User inserts money
  - Check stock and balance
  - Dispense drink
  - Return change

Guidelines
- Make your code as **object-oriented** as possible. Small limitations are acceptable; explain in comments if something isn't fully implemented.
- Focus on **readable, well-commented, and logically designed code**.
- Documentation or diagrams are optional; include only if they help explain your design.

Design Explanation (Required)
Along with your code, please include a short document (for example a README or PDF, max. 1–2 pages) in which you explain your design choices.

In this document, briefly describe:
- Why you chose these classes and responsibilities
- How the classes interact with each other
- Any assumptions or simplifications you made
- If applicable: what you would improve or extend if you had more time

The purpose of this document is not to judge writing skills, but to understand your reasoning and your understanding of object-oriented design.
You may use AI as a learning aid, but the explanation must clearly reflect your own understanding of the solution and the decisions you made.