Object Oriented Programming (OOP)

When designing programs, the nouns in our program description become our classes and the verbs become our functions/methods.

EX: Vending Machine

Features: buy a snack

- Output the snack
  - Specify snack you want
  - Keep track of snack cost
    - Ensure user has enough money
    - Give change
  - Keep track of quantity of snacks
    - Prevent user from buying out of stock snacks
  - Show the snacks available

```
Snack
- name (str)
- cost (float)
- calories (int)
- quantity (int)

Vending Machine
- list of Snack
  - buy Snack
  - show Snacks (not all snacks to user)
```
Show Snacks (list all snacks to view)
add Snack
delete Snack
load Snacks (from file)

Player:

money
list of snacks
Spend money
add Snack
list snacks

dat

Goal of OOP: The design of the program should match the problem definition