

# PC Builder

Your task is to create classes modelling a “PC Builder” application. Users are able to create gaming PCs for themselves. A PC is built from several Electrical Components, like CPU, RAM and Power Supply (for simplification these 3 components are enough to make a PC).

- Keep in mind that in the future a PC might need *more* components to work properly - make your code as extensible as possible.
- All electrical components have a name (like *Intel Core i3*)
- A Component either draws power (negative) or supplies power (positive) to the PC configuration
- Users can assemble multiple PCs
- Each PC configuration can contain multiple components, but can only contain one component for each type - don't allow users to add two components of the same type to the PC.
- Users can check if a PC (whatever components are added to it at the moment) works or not
  - A PC works if
    - It contains 1 component of each required type
    - If the components' overall power usage is positive

**Hints:** you should have an abstract class or interface, use inheritance, data hiding and make sure there is no code repetition.

If everything goes well, and it should, then:

- Extend the system to handle *temperatures* as well
- There are components that can *emit and/or absorb* heat
- A new component appears and it's required to build a PC from now: HeatSink/Fan, etc.
- A PC can only work if the previous conditions are met *plus* if its components absorb more heat than they emit.