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Computer Builder Simulator

Code Instruction:

My code is a computer component selection checker that allows the user to choose components from the component list that I provided. Each component category is saved in CSV files later parsed to vectors. 10 real life components are saved in each category and they all contain attributes necessary to them. This code uses classes to represent components, parse CSV files, check compatibility, display information and finally calculate the total wattage of chosen components. It gives valuable feedback on what went wrong in the selection process and tells the end user if the computer turned on at the end.

Generally my code followed this structure.

1. Create component class

2. Create vectors to store the components:

3.Parse the CSV file and populate the component vectors using the parseCSVFile function.

4.Display a list of available components to the user, allowing them to choose one component from each category:

5.Check if the selected RAM is compatible with the chosen motherboard using a function.

6.Check if the selected CPU is compatible with the chosen motherboard using a function.

7.Calculate the total wattage of the selected components by summing the wattage of the CPU, cooler, gpu, and motherboard.

8.Check if the selected storage is compatible with the chosen motherboard.

9.Check if the total wattage exceeds the rated wattage range of the selected power supply.

Concepts used in my code:

1. Class: I created a class to store attributes of my computer components.
2. Properties: Used many vectors that stored many properties including motherboard, cpu, ram, cooler, storage, gpu, power supply of different kinds. Also properties used in the main function include file parsing status, storing components, wattage calculations.
3. Behaviors: Parsing behavior. I used CSV files to populate vectors, displayed components of CSV files, Compatibility check across the components, Checks if the computer turned on or off.