Homework Assignment for Lesson 4: Advanced OOP Concepts

Problem 1: Composition

1.1. Define a class `Computer` that represents a computer system with the following components:
  - `cpu` (string): CPU model
  - `ram` (int): RAM size in GB
  - `storage` (int): Storage capacity in GB

1.2. Create a class `Monitor` to represent a computer monitor with the following attributes:
  - `size` (string): Monitor size in inches
  - `resolution` (string): Monitor resolution

1.3. Define a class `Desktop` that represents a desktop computer. The `Desktop` class should have a composition relationship with instances of the `Computer` and `Monitor` classes.

Problem 2: Real-world Application of Composition

3.1. Think of a real-world scenario where composition could be applied. Describe the scenario, including classes with composition relationships and their attributes.

3.2. Write Python code to implement the described scenario. Instantiate objects of the classes and demonstrate the composition relationship.