

Model 1 Class Diagram

Recall that a UML class diagram summarizes the attributes and methods of a class. In the repair shop example, a Car class might look something like this:

Car
- owner: Customer - make: String - model: String - year: int
+ Car() + getOwner(): Customer + setOwner(owner: Customer) + getMake(): String + setMake(make: String) + getModel(): String + setModel(model: String) + getYear(): int + setYear(year: int) + equals(obj: Object): boolean + toString(): String

Questions (15 min)

Start time:

- How many _____ are in the diagram above?
 - attributes
 - constructors
 - getters
 - setters
- What is the type of the owner attribute? Is it a primitive or reference type?
- Explain how this design allows multiple cars to be owned by the same customer.
- List three attributes that would be appropriate for the Customer class.

Variable Name	Data Type	Example Value

5. Rewrite the attributes from the previous question in UML format.
6. For each attribute, define a `get` method. Write your answer in UML format.
7. For each attribute, define a `set` method. Write your answer in UML format.

Optional Questions

8. What rules might be implemented in the `set` methods to ensure that only valid attribute values are stored? *Example: The customer's name should contain only letters and spaces.*

Variable Name	Validation Rules

9. Based on the attributes you defined, how could you determine whether two `Customer` objects represent the same customer?
10. In Model 1, what is the parameter name and type for the `equals` method? What version of `equals` is this method overriding?