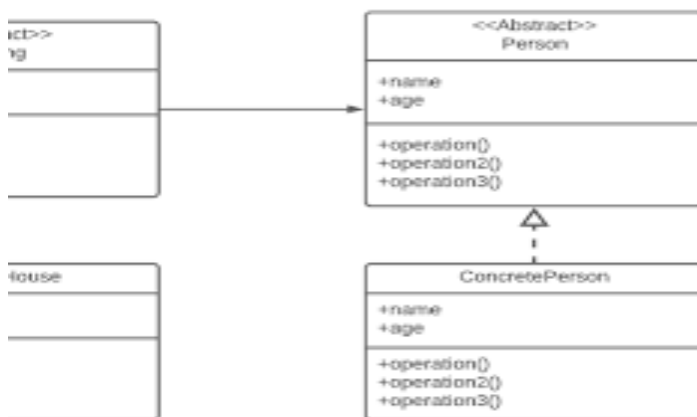


Abstract Class

- Purpose: Provides a partial implementation for subclasses to extend.
- Declaration: Uses the `abstract` keyword.
- Methods: Can have both abstract (unimplemented) and concrete (implemented) methods.
- Variables: Can have instance variables (both static and non-static).
- Inheritance: Classes can only extend one abstract class (single inheritance).
- Visual Representation:



Interface

- Purpose: Defines a contract of methods that classes must implement.
- Declaration: Uses the `interface` keyword.
- Methods: All methods are abstract (no implementation).
- Variables: Can only have static final variables (constants).
- Inheritance: Classes can implement multiple interfaces.
- Visual Representation:

