



## Problem 2:

- IS-A: MallardDuck IS-A Duck because it inherits from the Duck class.
- IS-A: RedheadDuck IS-A Duck because it is also a subclass of Duck.
- IS-A: RubberDuck IS-A Duck since it extends the Duck class.
- IS-A: DecoyDuck IS-A Duck because it is a specialized type of Duck.
- HAS-A: Duck HAS-A FlyBehavior because it contains a reference to FlyBehavior as part of its composition, allowing different flying behaviors.
- HAS-A: Duck HAS-A QuackBehavior because it contains a reference to QuackBehavior, enabling different quacking behaviors.
- IS-A: Quack IS-A QuackBehavior since it implements the QuackBehavior interface.
- IS-A: Squeak IS-A QuackBehavior because it implements the QuackBehavior interface.
- IS-A: MuteQuack IS-A QuackBehavior as it implements the QuackBehavior interface.

### Problem 3:

