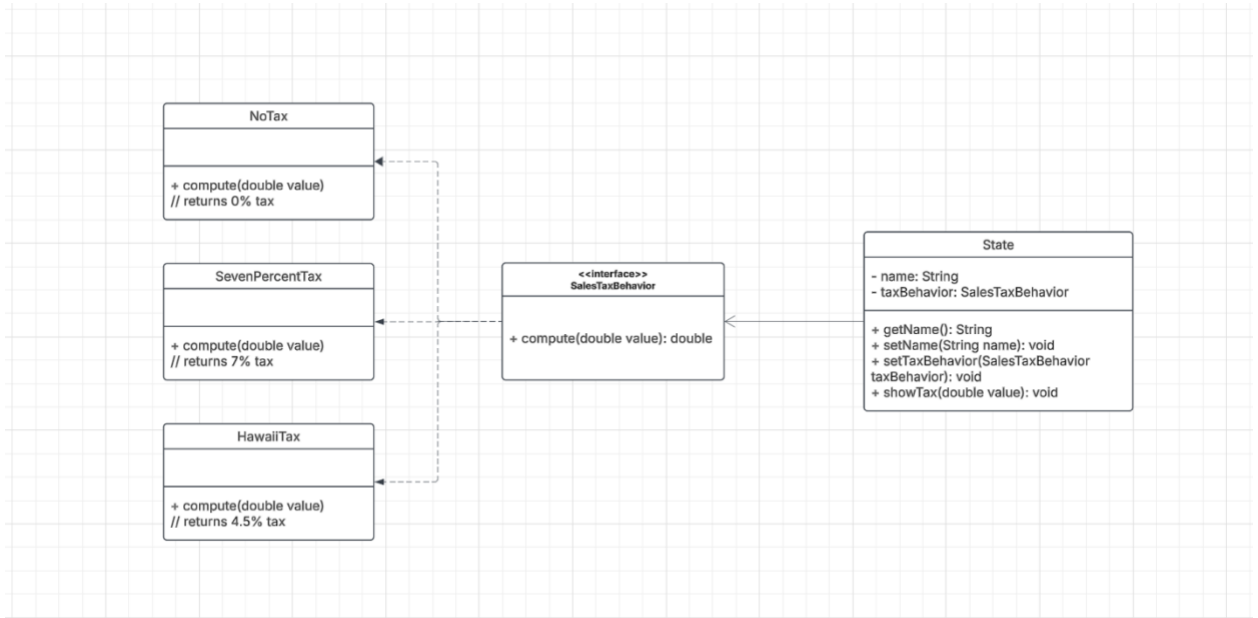Justin Rogers

1)

2)
1) IS-A relationship because MallardDuck inherits from Duck showing that it is a type of Duck.
2) IS-A relationship because RedheadDuck inherits from Duck showing that it is a type of Duck.
3) IS-A relationship because RubberDuck inherits from Duck showing that it is a type of Duck.
4) IS-A relationship because DecoyDuck inherits from Duck showing that is a type of Duck.
5) HAS-A relationship because Duck has a FlyBehavior instance variable showing composition where Duck has a flying behavior.
6) HAS-A relationship because Duck has a QuackBehavior instance variable showing composition where Duck has a quacking behavior.
7) IS-A relationship because Quack implements QuackBehavior interface showing Quack is a type of QuackBehavior.
8) IS-A relationship because Squeak implements QuackBehavior interface showing Squeak is a type of QuackBehavior.
9) IS-A relationship because MuteQuack implements QuackBehavior interface showing MuteQuack is a type of QuackBehavior.

3)

InPersonBidder

+ updateBid(double): void
+ payBid(): void

OnlineBidder

+ updateBid(double): void
+ payBid(): void

PhoneBidder

+ updateBid(double): void
+ payBid(): void

<<interface>>
Bidder

+ updateBid(double): void
+ payBid(): void

Auctioneer

- minimumBid: double
- currentHighBid: double

+ registerBidder(Bidder): void
+ notifyBidders(): void
+ removeBidder(Bidder): void
+ acceptBid(double): void