Time: 25 minutes

You are an employee at HungryHippo, leading online food delivery app. HungryHippo, known for its seamless shopping experience, every customer order goes through a journey that involves multiple steps: "Placed," "Confirmed," "Shipped," "Delivered," and potentially "Cancelled."

When an order is first placed, it shows as "Placed", where it awaits confirmation. Once confirmed, the order transitions as "Confirmed", after which it moves as "Shipped", indicating that it is on its way to the customer. Finally, the order shows as "Delivered", marking the successful completion of the journey.

However, not all orders will complete this journey. Some may be cancelled before shipment, causing a transition to "Cancelled". The system must ensure that each step governs its own set of actions. Each step should also enforce valid transitions; for example, an order cannot skip directly from "Placed" to "Delivered" or revert to "Confirmed" once it has been shipped.

The platform needs to handle these transitions seamlessly while ensuring flexibility for future changes, such as adding new steps like "Returned" or "On Hold." (no need to implement now, but could be added in future). The design must support clear, maintainable code with encapsulated behaviors for each state, ensuring that the order management system remains robust and easy to extend as new requirements arise.