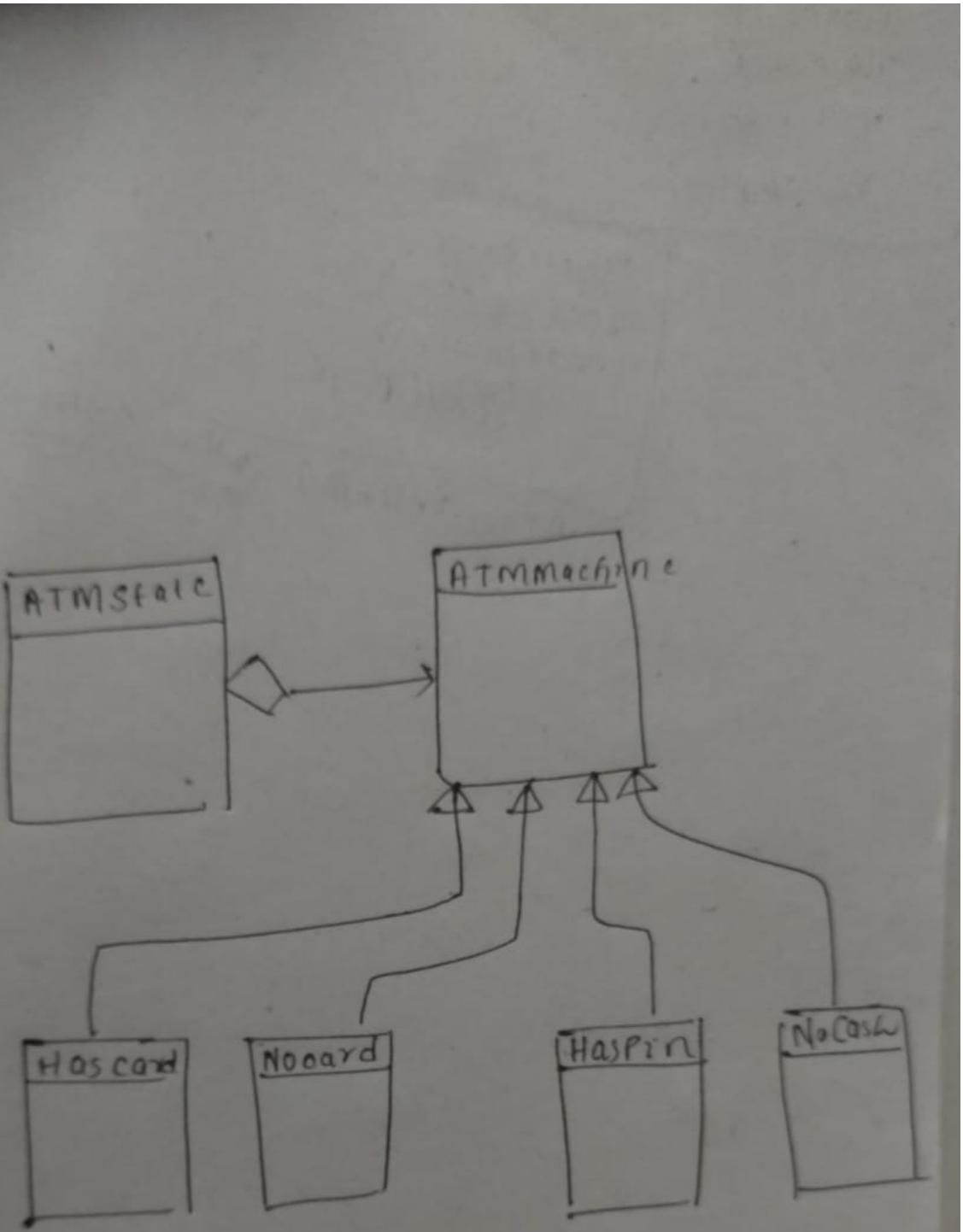
ATMState
ATMMachine
HasCard
NoCard
HasPin
NoCash

The interactions of the user with the ATM system are determined by the interface, which encompasses actions such as card insertion, card ejection, PIN entry, and cash withdrawal. The system's conduct must adapt to its present state. For instance, when in the "request cash" state, the user can request cash and subsequently eject the card. However, several checks and validations must be performed before authorizing these actions, such as verifying the presence of cash and the accuracy of the entered PIN.

This notion of state management abstracts the implementation particulars. Although it may seem that different classes represent diverse states, in actuality, it is the behavior that dynamically alters based on the state. In this design, inheritance and aggregation are pivotal mechanisms that facilitate the creation of distinct states and their association with the ATM system.