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SDM Theory Assignment 2

Q.1. Insurance system provides vehicle insurance to the owner. Initially, the customer fill the form which has vehicle details & owner's details. This information is submitted to agent. The agent sends the information to various insurance companies. The companies quote the insurance. The agent sent best policy & give it to owner. Draw activity diagram with swimlane & other applicable notations.

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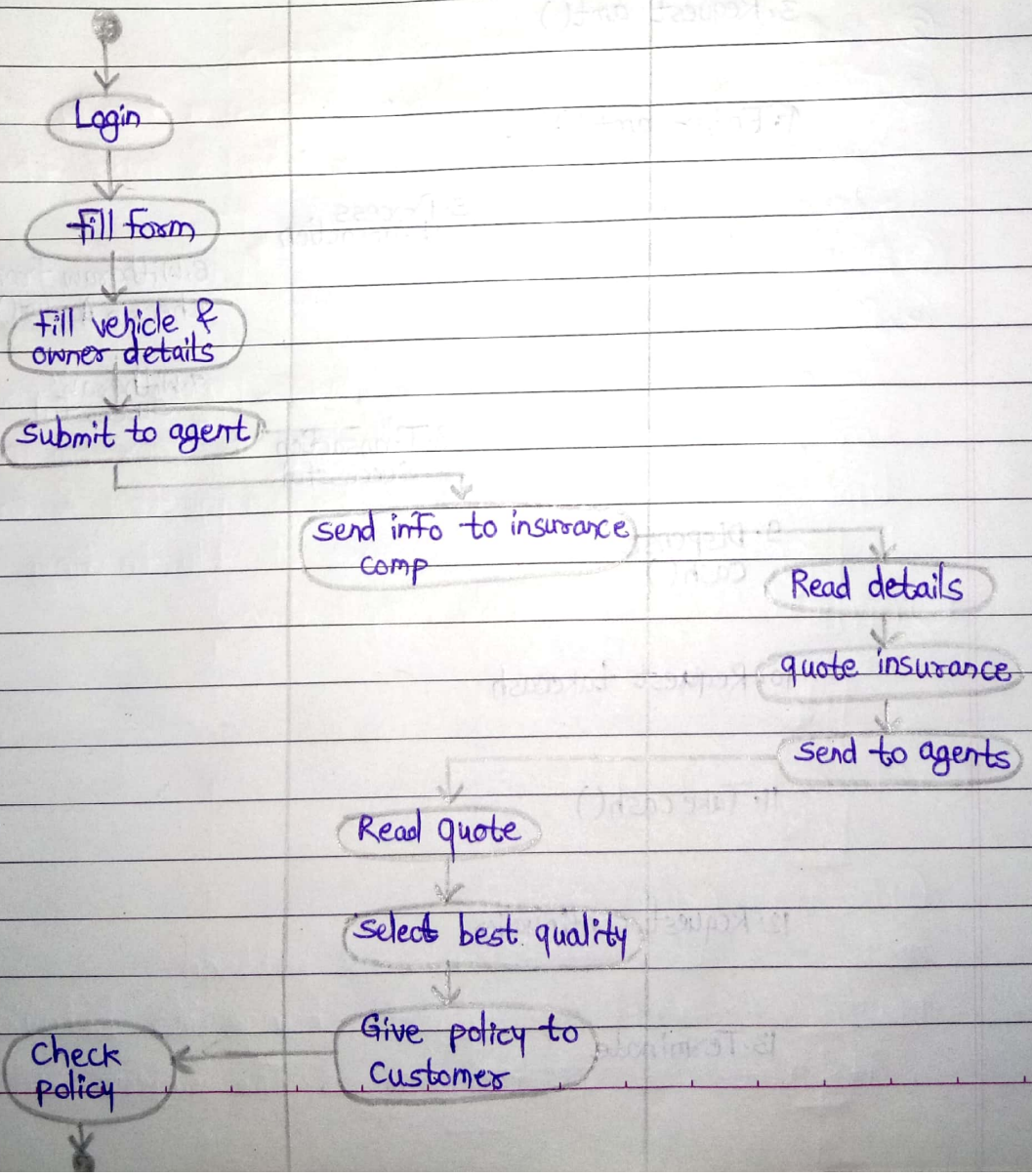

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Q.2. Draw ATM sequence diagram for withdrawal ~~management~~ money. Consider following objects: Customer, bank, ATM & account. Use structure control tag.

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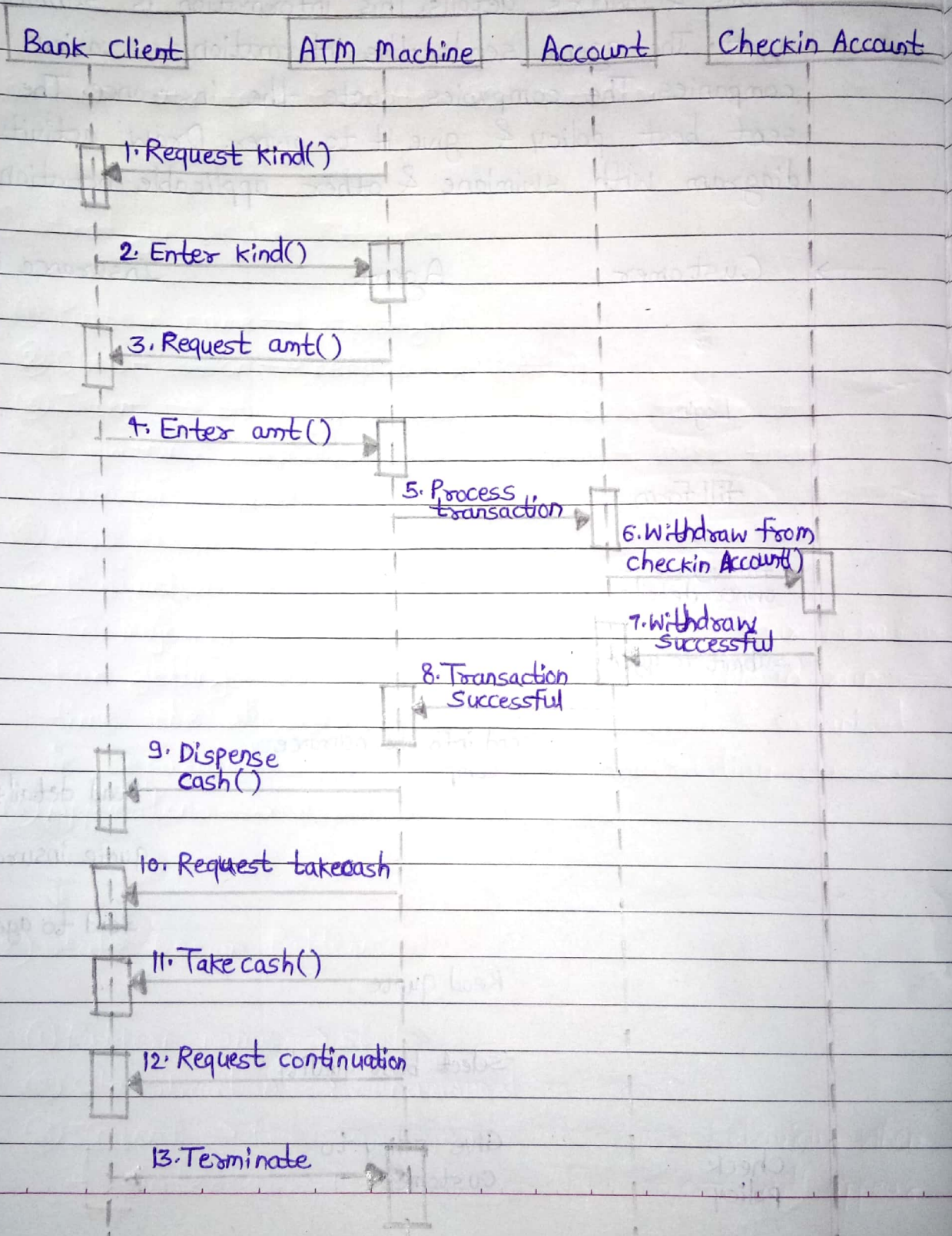

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Q.3. Explain creator & information expert pattern.

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① Creator:-

Creation of objects in object oriented design is one of the most common activities in an object oriented system which class is liable for producing objects is a vital property of the association amongst objects of particular classes.

Generally, a class B should be liable for creating instance of class A if one or preferably more of the following apply-

① instances of B consists or compositely aggregates
② instance of A.
③ instances of B record instances of A
④ instances of B closely use instances of A

② Information expert:-

It is a principle used to determine where to delegate responsibilities. These responsibilities contain methods, compute fields & so on.

Using the principle of information expert general approach to assigning responsibilities is to look at a given responsibility, determine the information needed to fulfil it & then determine where the information

is stored.

It will lead to placing the responsibilities on the class with the most information required to fulfill it.

Q.4. Explain Strategy & state GOF pattern.

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① Strategy Design Pattern:-

① Pattern name → Strategy
② Classification → Behavioural Pattern
③ Intent → Strategy pattern defines a family of algorithms summarize each algorithm & make them substitutable.
④ Also known as → Policy
⑤ Motivation →
In majority of situations, classes vary in their behaviours. For getting facility of selecting an algorithm in run time the algorithm should be suggested & organised in separated classes in case of Fluctuating classes.
⑥ Applications → Robotics applications

② State Design Pattern:-

① Pattern name → state
② Classification → Behavioural pattern
③ Intent → Let an object change its behaviour when its internal state changes. The object will appear

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to change its class.

④ Also known as → objects for states

⑤ Motivation →

Let us consider an example scenario using a mobile with respect to alerts, a mobile can be in different states. For eg. vibration & silent. Based on this alert state, behaviour of the mobile changes when an alert is to be done.

⑥ Applicability

When a behaviour of a particular object depends on its state, a state design is used.

The number of objects involved in a particular software system application can be augmented & improved with the help of state design pattern.