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Object Oriented Analysis & Design Module-4 (RL 4.1.3)

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Refining Domain Model : Association Classes

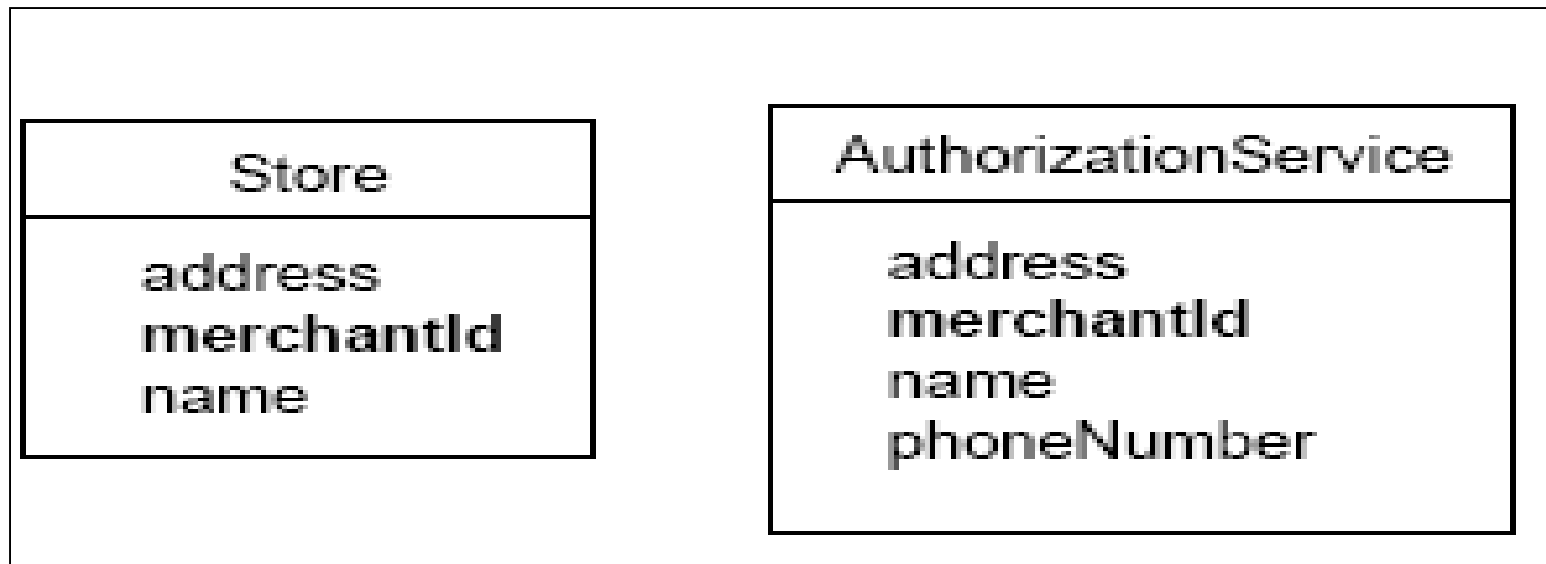


Association Classes

- Authorization services assign a merchant ID to each store for identification during communications.
- A payment authorization request from the store to an authorization service requires the inclusion of the merchant ID that identifies the store to the service.
- Consider a store that has a different merchant ID for each service. (e.g. Id for Visa is XXX, Id for MC is YYY, etc.)

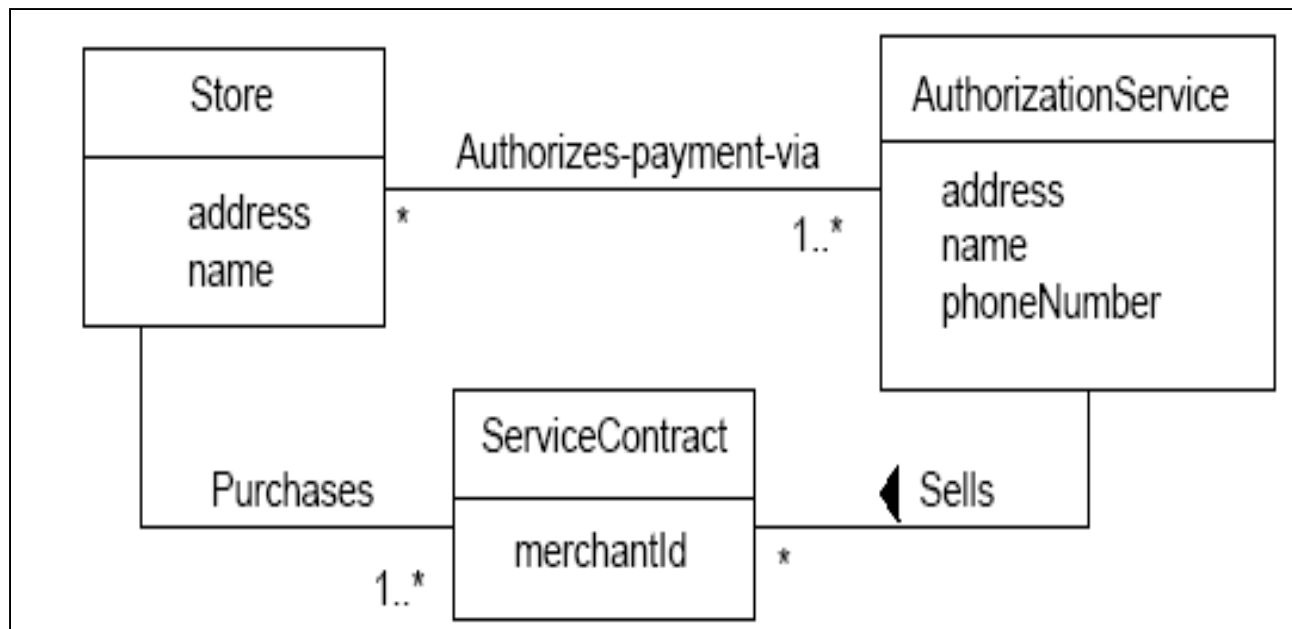
Association Classes

- Where in the conceptual model should the merchant ID attribute reside?
- Placing the merchantId in the Store is incorrect, because a Store may have more than one value for merchantId.
- The same is true with placing it in the AuthorizationService



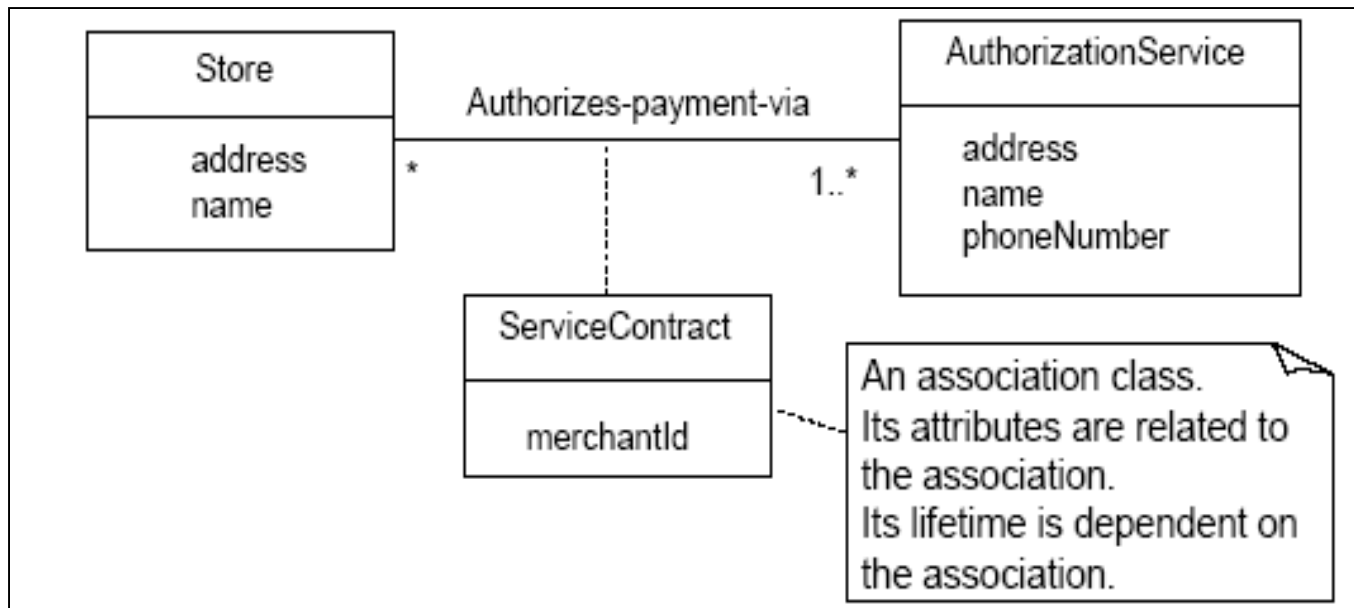
Association Classes

- In a conceptual model, if a class C can simultaneously have many values for the same kind of attribute A, do not place attribute A in C. Place attribute A in another type that is associated with C.



Association Classes

- The merchantId is an attribute related to the association between the Store and AuthorizationService; it depends on their relationship.
- ServiceContract may then be modeled as an association class.



Guidelines for Association Classes

- An attribute is related to an association.
- Instances of the association class have a life-time dependency on the association.
- There is a many-to-many association between two concepts.
- The presence of a many-to-many association between two concepts is a clue that a useful associative type should exist in the background somewhere.

