Assignment 3
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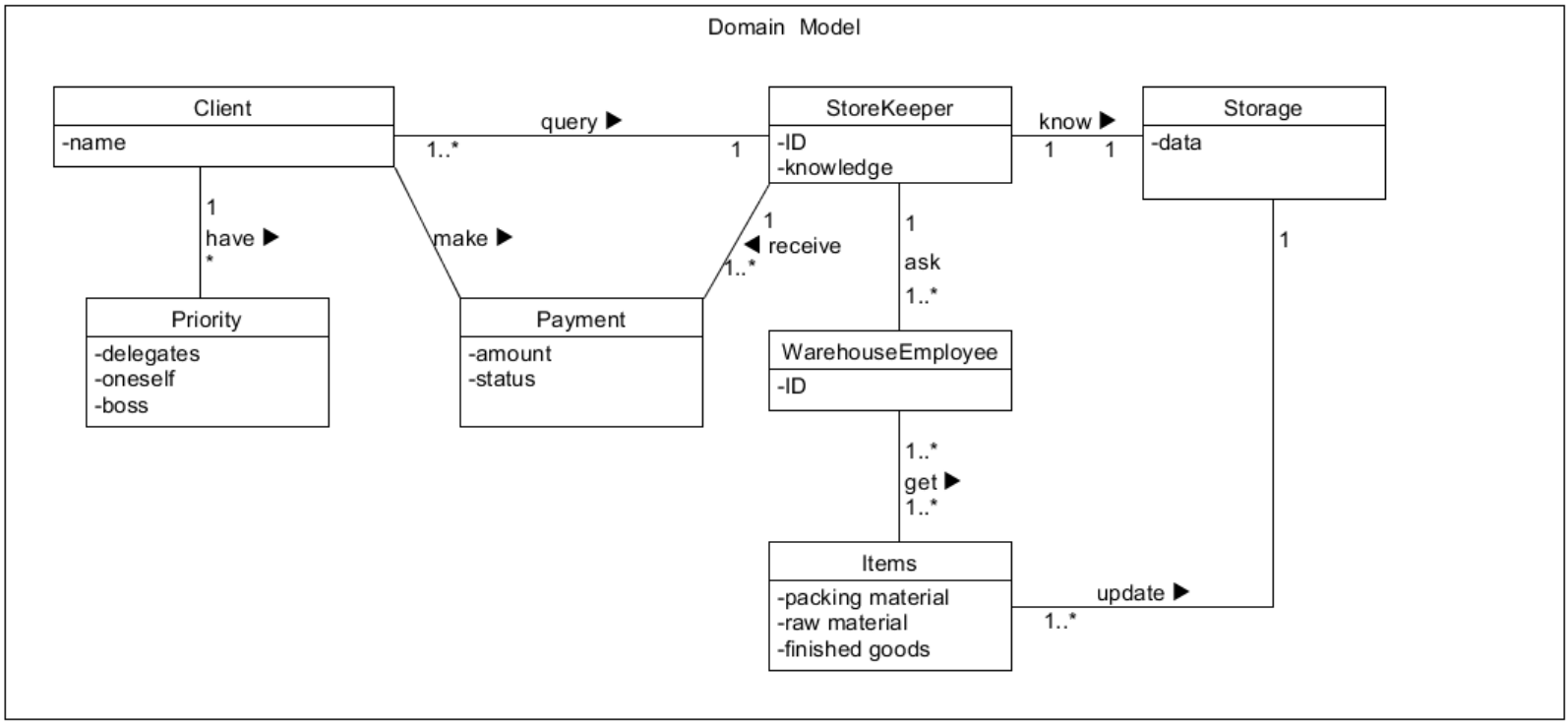
Question #1

Given is a store. This store has a storekeeper and a storage that contains many items (goods) e.g. packing material, raw material and finished goods.
You, as a client would like to access these different goods. However, you do not know where the different materials are stored. The only access you have to the store is through the storekeeper who knows his store well. Whatever item you want, you tell the storekeeper and he will ask his warehouse employee to get this items for you and hand it over to you after you pay for it. The storekeeper will select, based on your customer priority, among one of several methods which he has available for obtaining the goods in the warehouse (e.g. delegates, does it by himself, sends his boss)

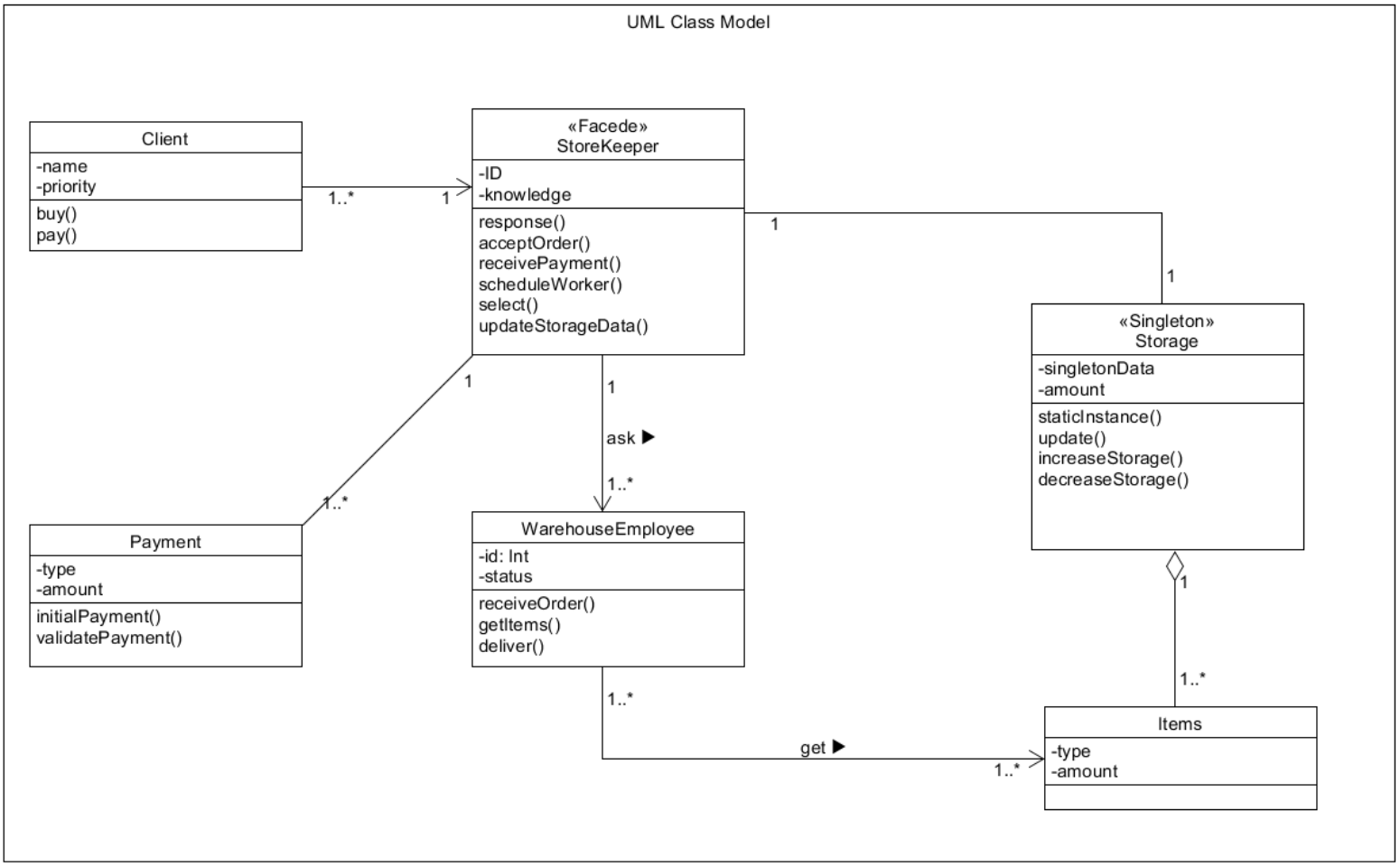
a.) Create a domain Modell for the above problem



b.) Which GoF pattern(s) would be applicable and why? Briefly justify your

Fa çade patterns would be applicable. Because the client can only interact with store keeper, and other subsystems should be hidden , so the store keeper performs as a fa çade interface.

c.) Provide a UML class model for the above problem, include **major methods and cardinalities.**



Question #2
Launched in November 1995, **RADARSAT-1** provides Canada and the world with an operational radar satellite system capable of timely delivery of large amounts of data which has been collected and stored. Equipped with powerful synthetic aperture radar (SAR) instrument, it acquires images of the Earth day or night, in all weather and through cloud cover, smoke and haze. It provides useful information to both commercial and scientific users in such fields as disaster management, interferometry, agriculture, cartography, hydrology, forestry, oceanography, ice studies, and coastal monitoring.
What architecture would be the most appropriate? Briefly justify your decision (include advantages and disadvantages of this architectural style.

Answer:
I think that batch sequential systems would be the most appropriate.

Because the commercial and scientific components are independent programs using the same raw data from RADARSAT-1. Also there needs periodic reports based on timely delivery of large data.

Advantages: Each independent program can process the shared raw data separately, so the same data can be used for multiple purpose, and output desired result.

Disadvantages: Each subsystem works independently, so the concurrency is not guaranteed. Also it doesn't provide interactive functions.