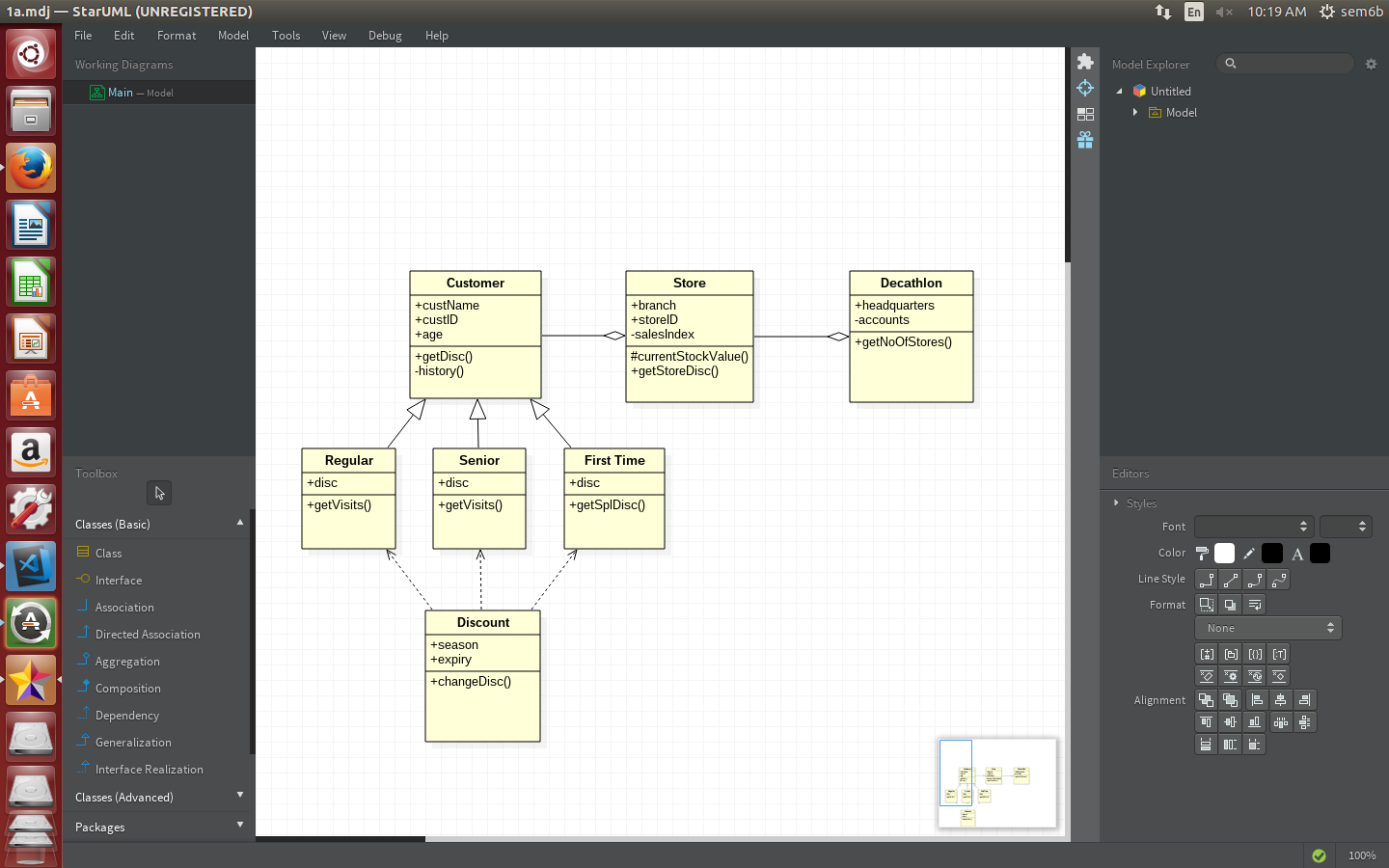
**PART-A**

***Case-study to understand the limitation of traditional Object Oriented Design and appreciate need for DesignPatterns. Use UML Notations to design.***

You are a fresh analyst deputed to design the software for Decathlon Chain of Stores in Karnataka. You are informed about the Business Logic of Point of Sales criteria by Ms.Veronica Lodge, a dynamic business tycoon operating out of Decathlon Mumbai. She informs you that there are different types of Customers of Decathlon namely, Regular Customers, Senior Citizens and First Time Customers. Regular Customers are given a discount of 12%, Senior Citizens 10% and First Time Customers 15%. Apart from this, based on the sales-index of previous day, a Store-level discount is determined every day. This is dynamic. **E.g**.Rs.100 off for every purchase above Rs.2000. Using the Object Oriented Principles of Encapsulation, Abstraction, Inheritance, Composition and Aggregation that you have studied until this semester, give at least two ways to design this system.

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