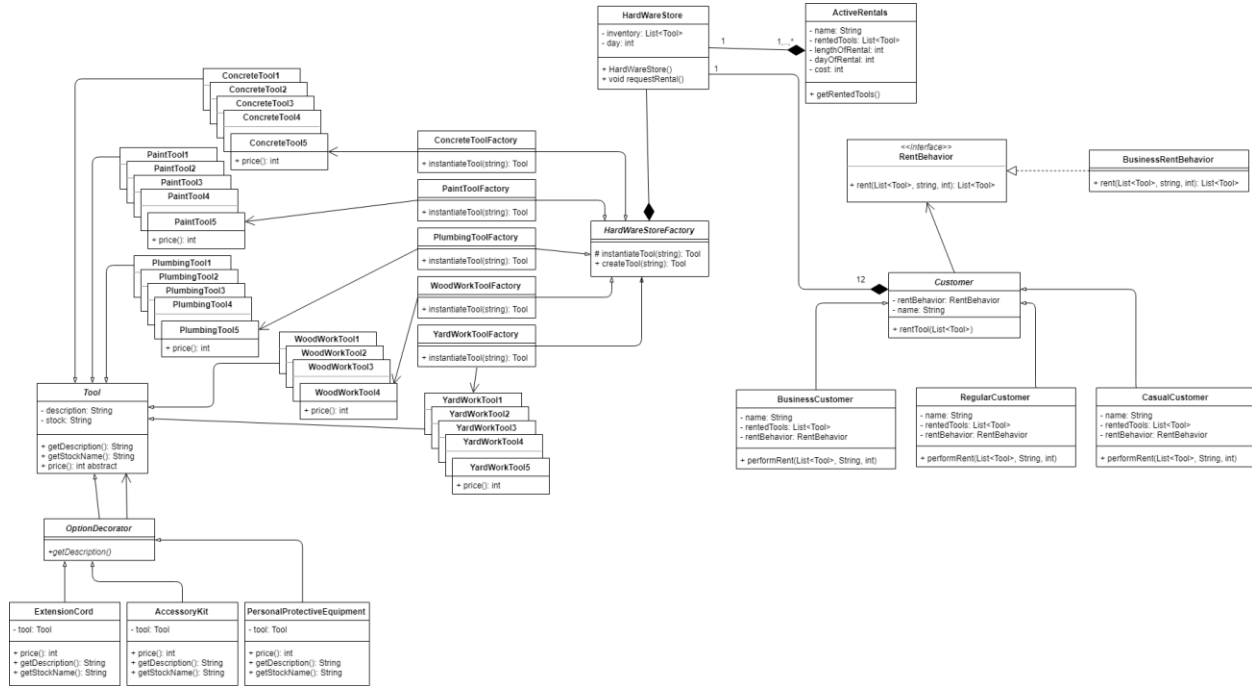


Christian Simons

CSCI4448 – HW3

UML Diagram



Above is a UML Diagram of what was completed or partially implemented in the Project 3 assignment, which was written in Java. I ran into issues with object compatibility when using the decorator for the tools class. When renting the tools, the decorator altered the class type, and made it difficult to update the hardware store inventory. I briefly considered using the names of the objects to re-instantiate an undecorated class in order to return the tools, however I felt that defeated the point of using the decorator and would be perceived as a shaky work-around. I simply ran out of time while trying to devise a way of tracking active rentals and complete rentals within the implementations of the customer class. The customer rental behavior varied based upon what type the customer was, so that behavior was being implemented using a strategy pattern. The factory pattern did successfully produce tools that could be decorated.