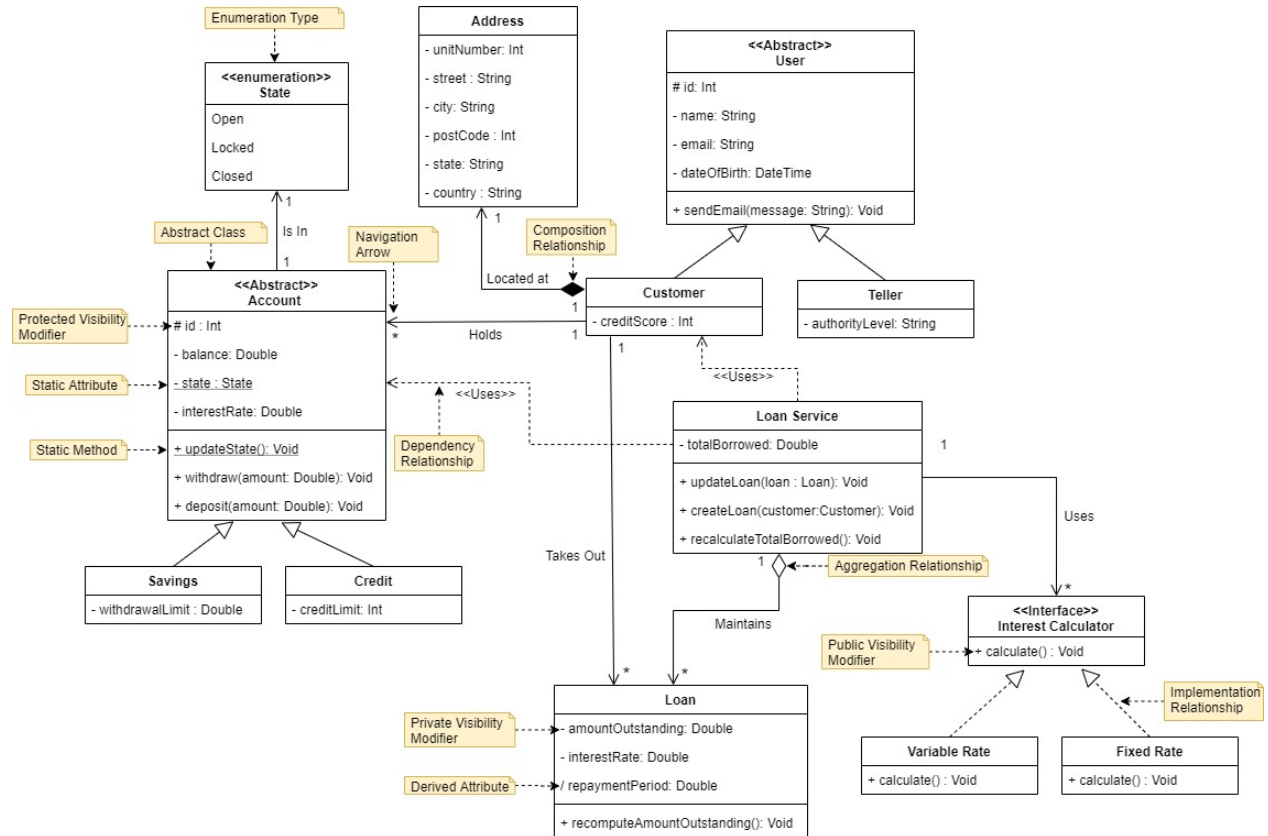# Notation Reference for a Design Class Diagram

Example: Online Banking Application

Note: *Notation labels that have already been covered in the "Notation Reference for a Domain Class Diagram" have been omitted from this diagram.*

Description:

1. The users of the banking application are either customers or tellers.
2. Customers can hold a credit or savings account and can also take out loans.
3. Customer accounts can either be open, closed or locked. When an account is open, customers can withdraw and deposit money.
4. Loans at the bank are often calculated based on standard industry interest rates and on the financial state of the customer obtaining the loan.
5. The bank has two separate ways for calculating the interest rate, one is based on the variable rate and the other on a fixed rate.

Loan Service Class:

The 'Loan Service' class is responsible for managing and manipulating the various domain classes. For example, consider the *createLoan(customer:Customer)* method, which is invoked when a customer requests to take out a loan. With the provided 'Customer' object, the method can obtain the customers 'creditScore' and access the associated 'Account' of the 'Customer' to check their account balance. If these values satisfy loan requirements, the method will create a 'Loan' that is associated with this 'Customer'. When creating the 'Loan' the 'Loan Service' would make use of an appropriate 'Interest Calculator'.