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COMP 3111: Software Engineering

Lecture 3 Exercise: Modeling Software Systems using UML

Bank	BankAccount	Checking	CreditCard	Customer
Deposit	Savings	Transaction	Transfer	Withdrawal

Banks issue credit cards (e.g., Visa, MasterCard, etc.) to customers. Each credit card is issued by only one bank to only one customer. Customers hold bank accounts with banks. Each bank account is with only one bank and held by only one customer. A bank account may be a savings account or a checking account. Each savings account has a passbook, which shows the transactions made against the account. Checking accounts do not have passbooks. Customers make transactions against their bank accounts. A transaction can be a deposit, withdrawal or transfer.

In the space below, construct a class diagram, using only the ten classes listed above, that shows, as necessary, associations, aggregations, compositions, generalizations among the classes as well as any necessary association classes and constraints. Associations should be named, as necessary. Using the problem statement and real-world knowledge, give the most likely multiplicities for each association, aggregation and composition. If a multiplicity cannot be inferred from the problem statement or real-world domain knowledge, then indicate this with a "?".

Casper Kristiansson | Karolina Sjoekvist
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