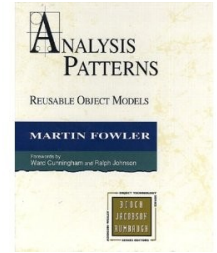


Analysis Patterns

PV167 Project in Object-oriented Design of Information Systems

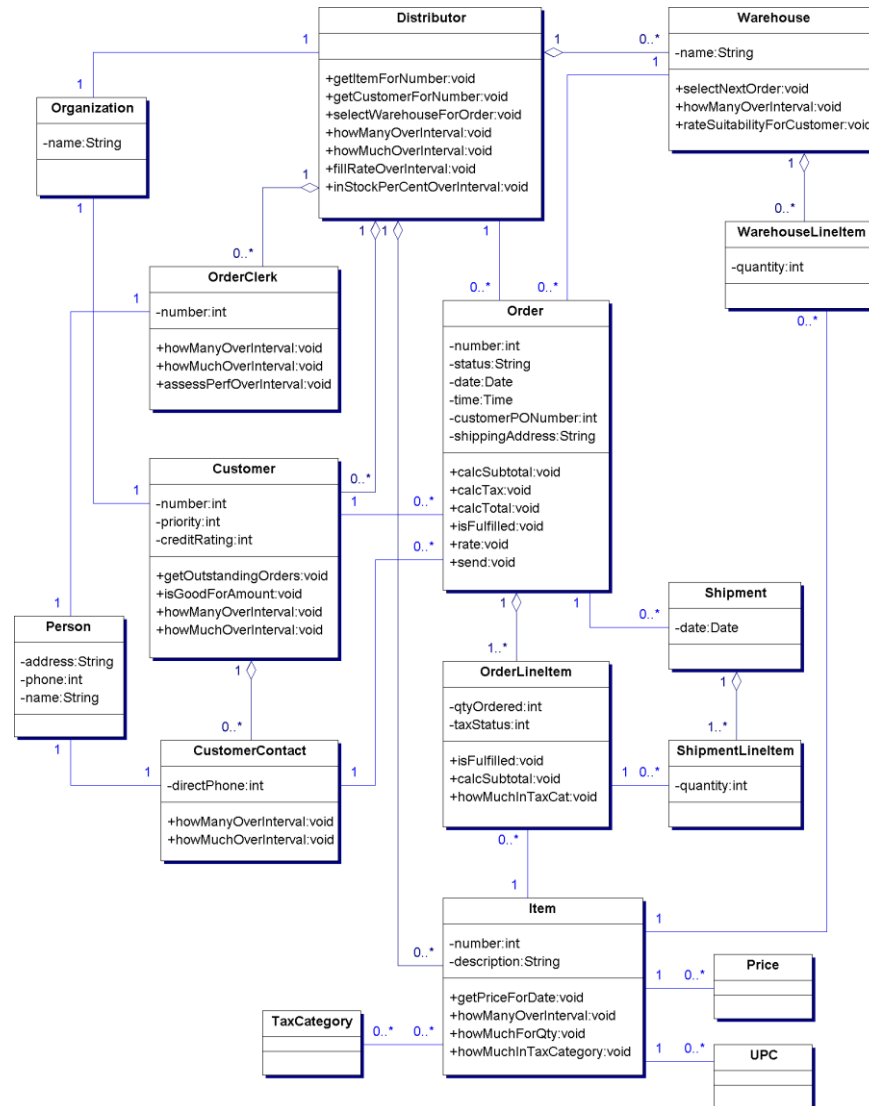
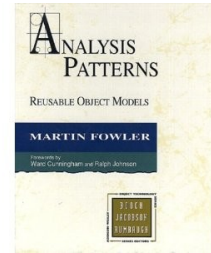
Analysis Patterns

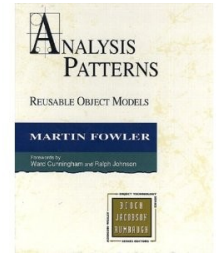


✧ **Analysis Patterns: Reusable Object Models** by Martin Fowler, 1997

- Accountability
- Observations and Measurements
- Observations for Corporate Finance
- Referring to Objects
- Inventory and Accounting
- Planning
- Trading
- Derivative Contracts
- Trading Packages

Case Study: Ollie's Order Center

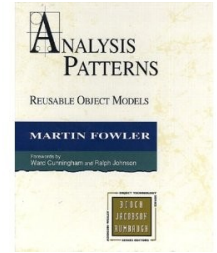




Analysis Patterns

Part 1/2

Studied patterns



✧ Accountability

- Party pattern
- Accountability pattern

✧ Observations and Measurements

- Quantity pattern
- Conversion Ratio pattern

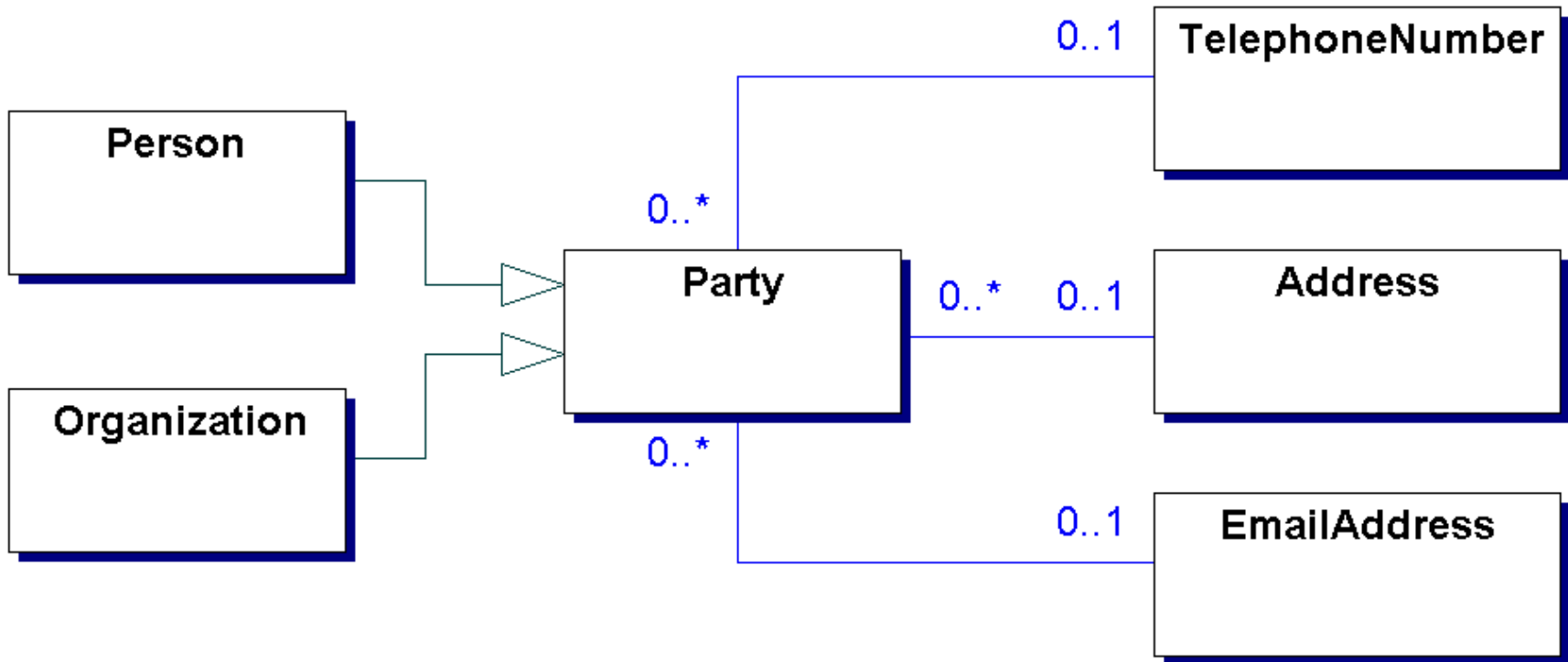
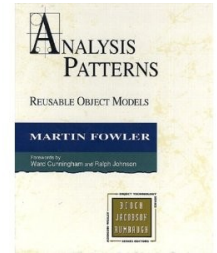
✧ Observations for Corporate Finance

- Enterprise Segment pattern

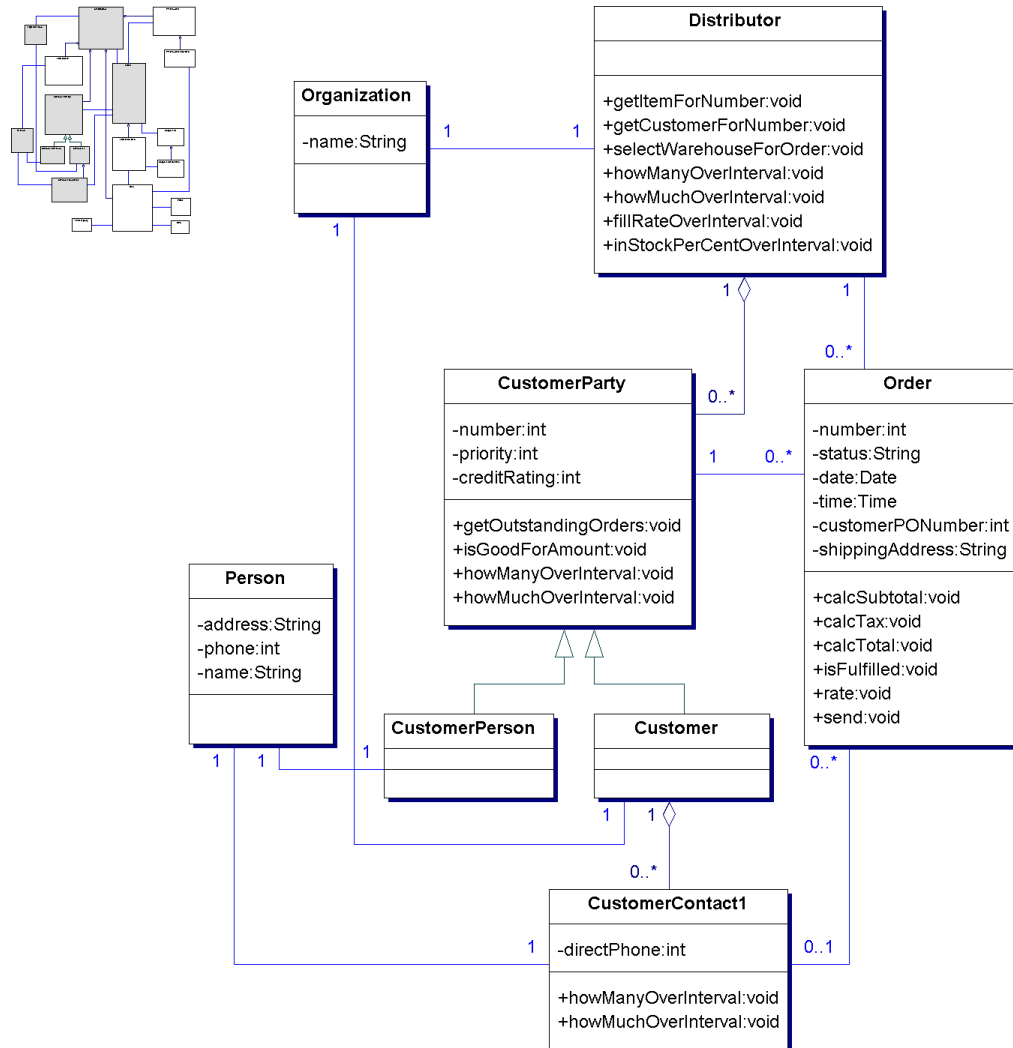
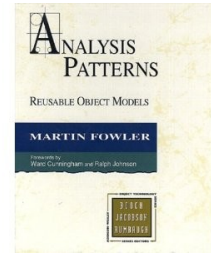
✧ Referring to Objects

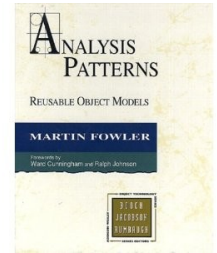
- Name pattern
- Identification Scheme pattern

Accountability – Party pattern

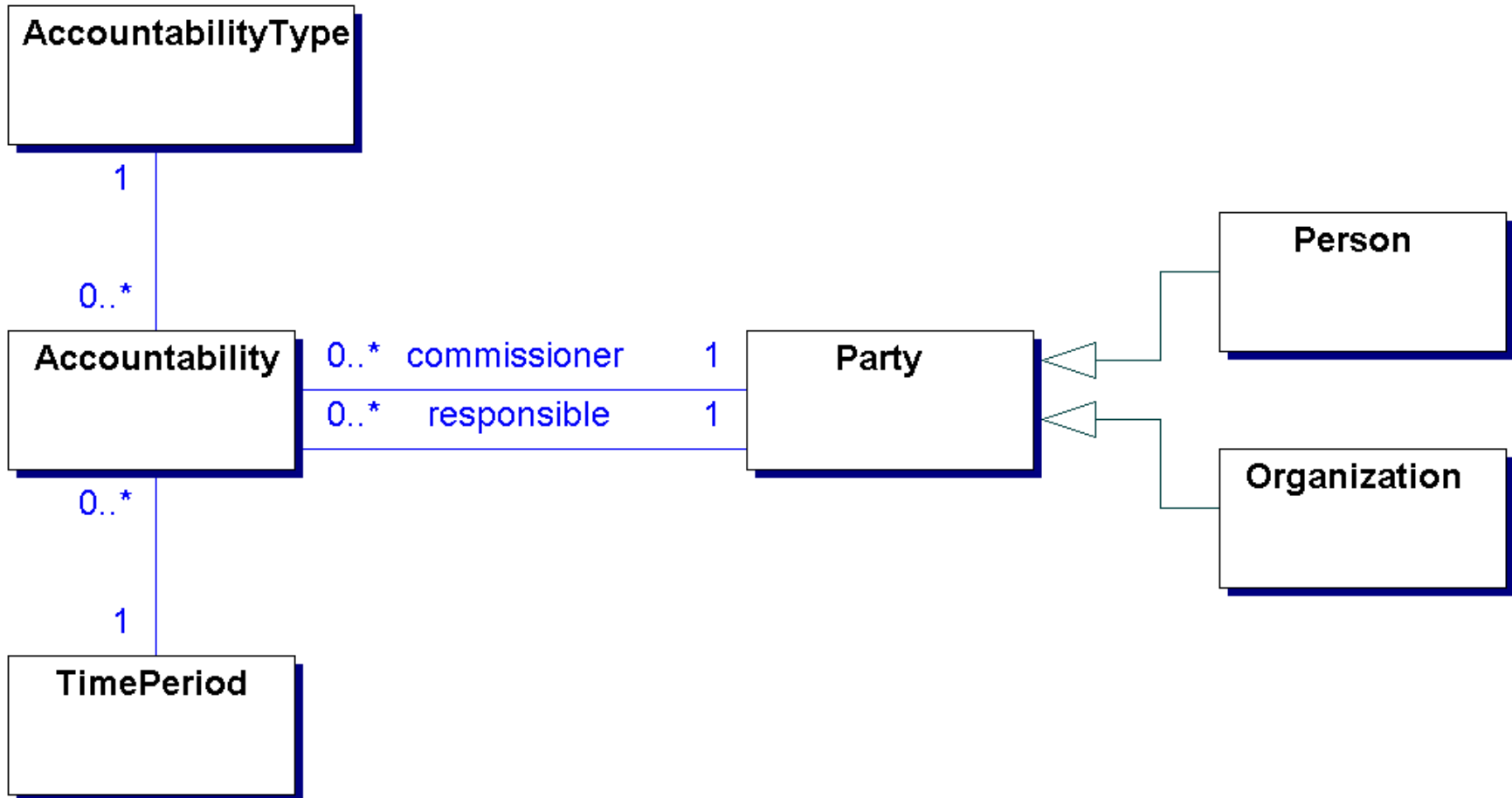


Ollie's Order Center: Party pattern

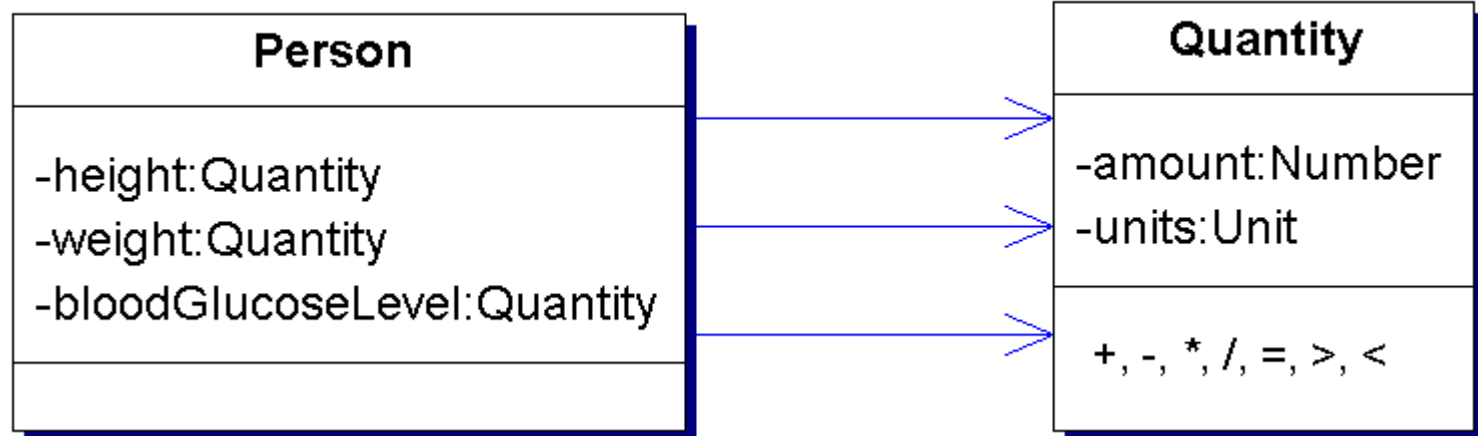
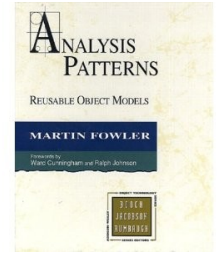




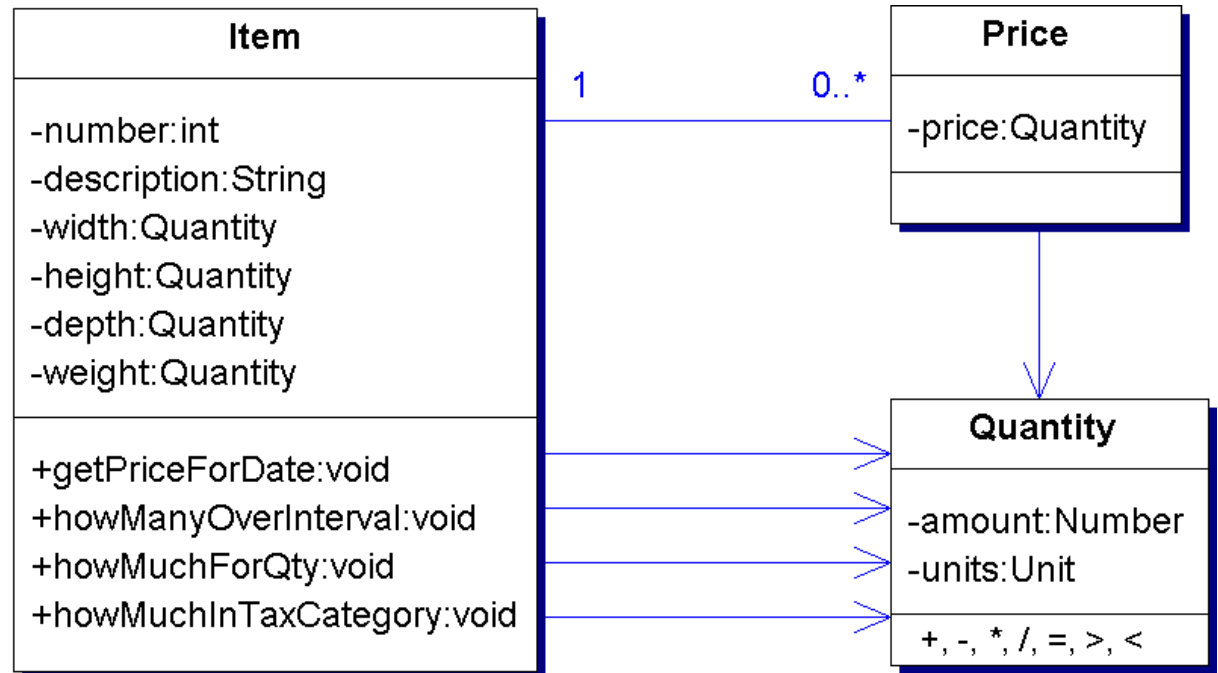
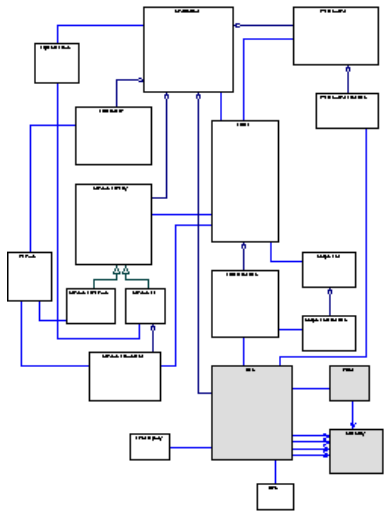
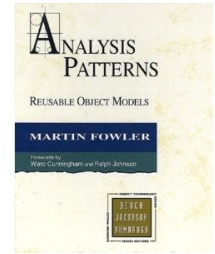
Accountability – Accountability pattern



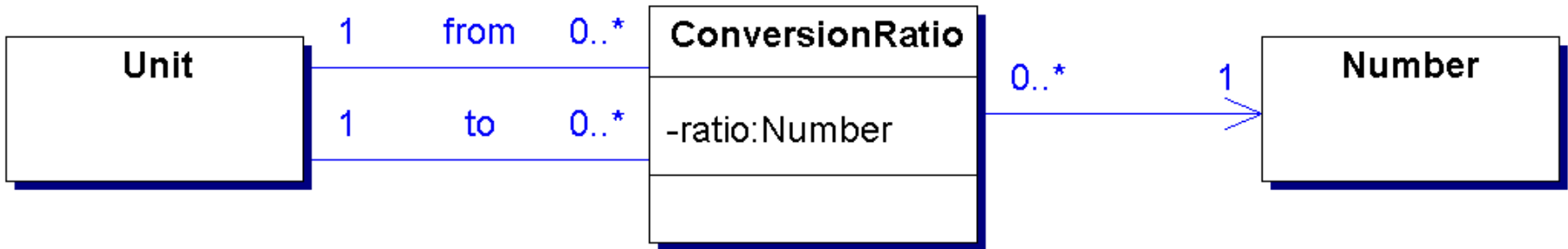
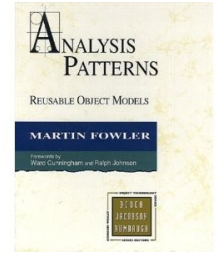
Observations and Measurements – Quantity pattern

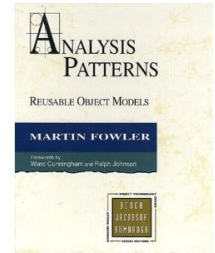


Ollie's Order Center: Quantity pattern

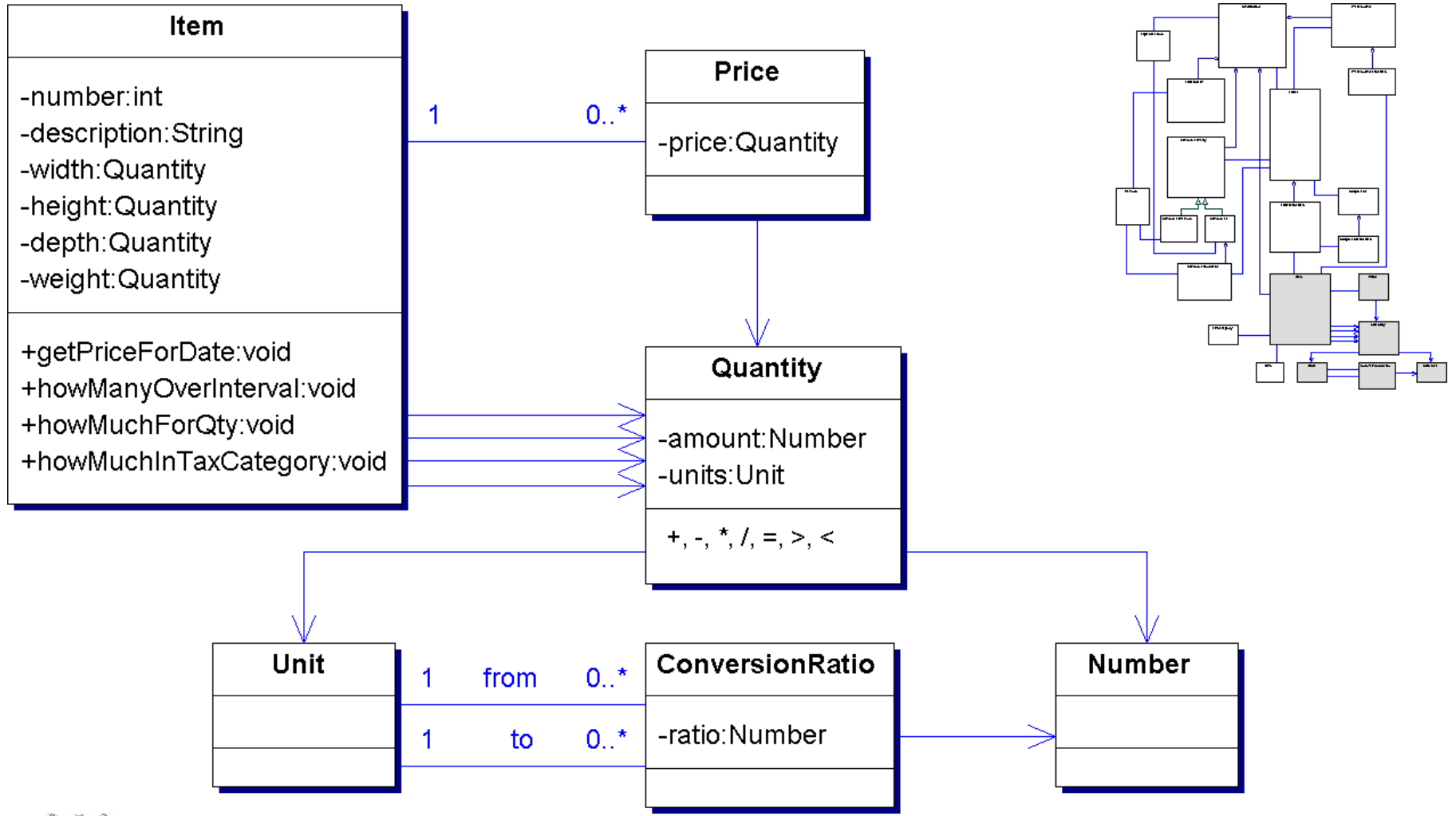


Observations and Measurements – Conversion Ratio pattern

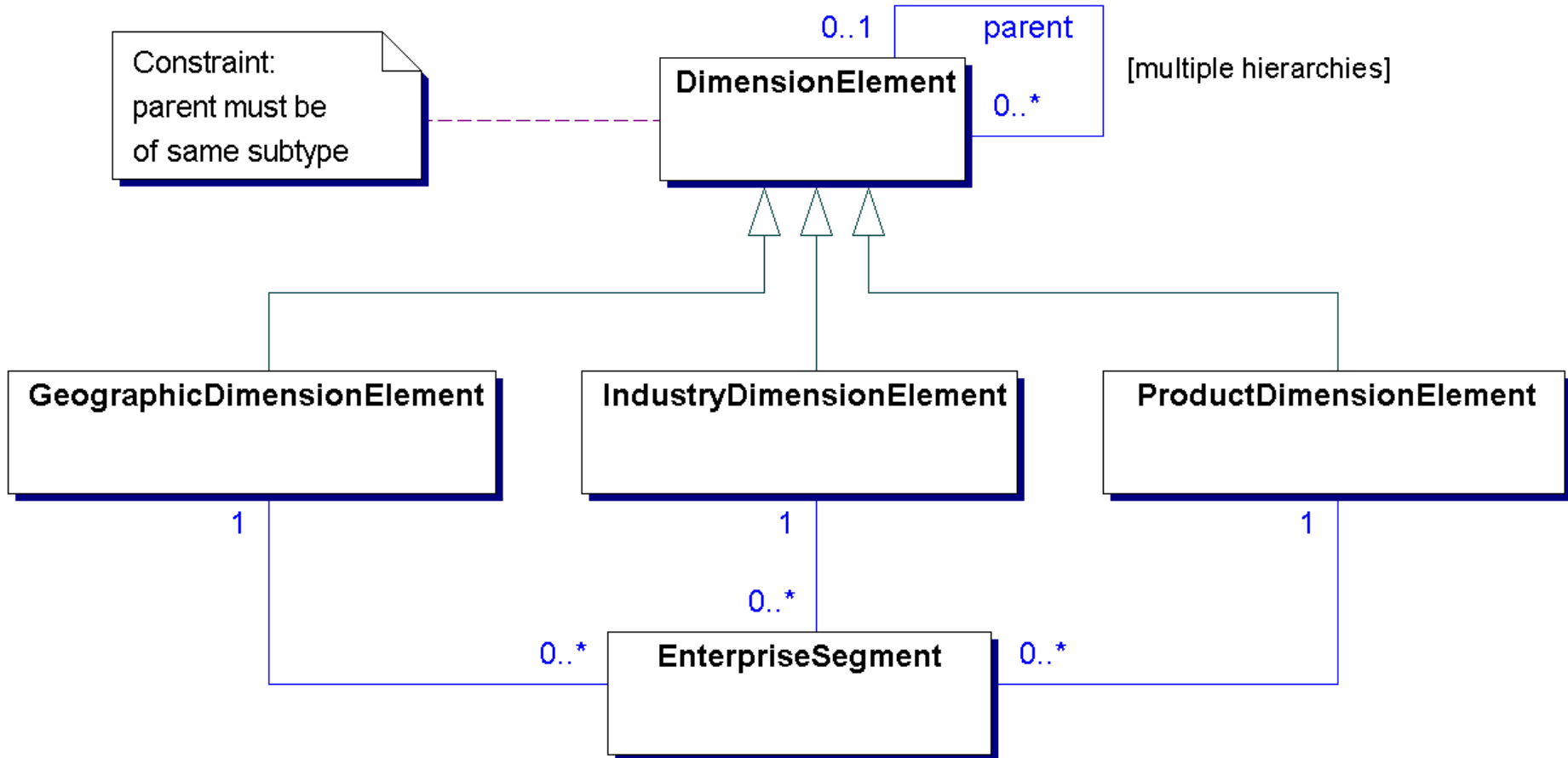
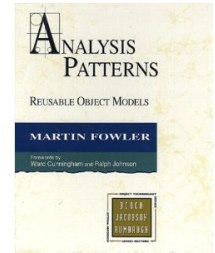




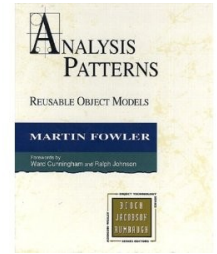
Ollie's Order Center: Conversion Ratio pattern



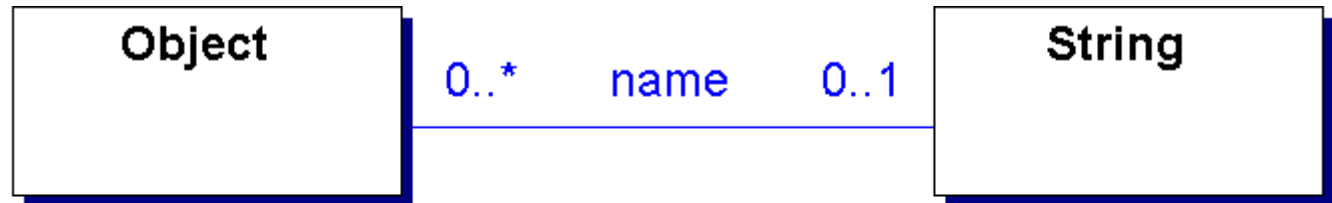
Observations for Corporate Finance – Enterprise Segment pattern



Referring to Objects – Name pattern



One name:



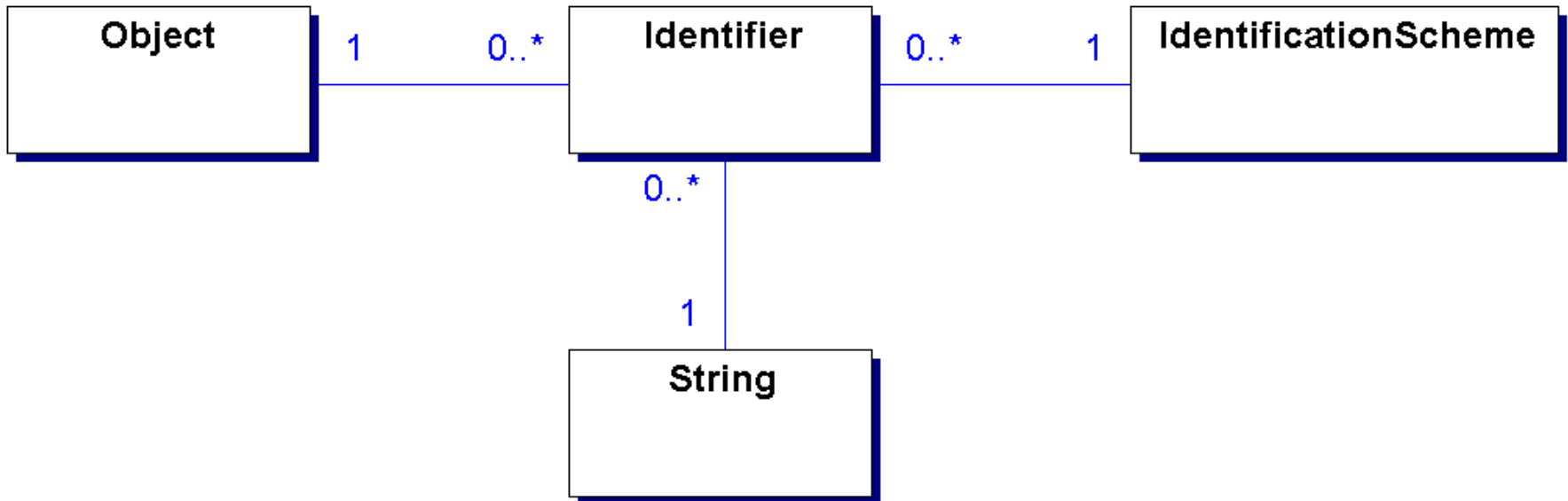
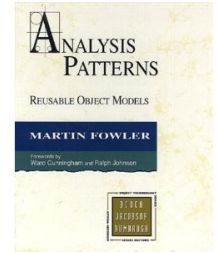
More names:



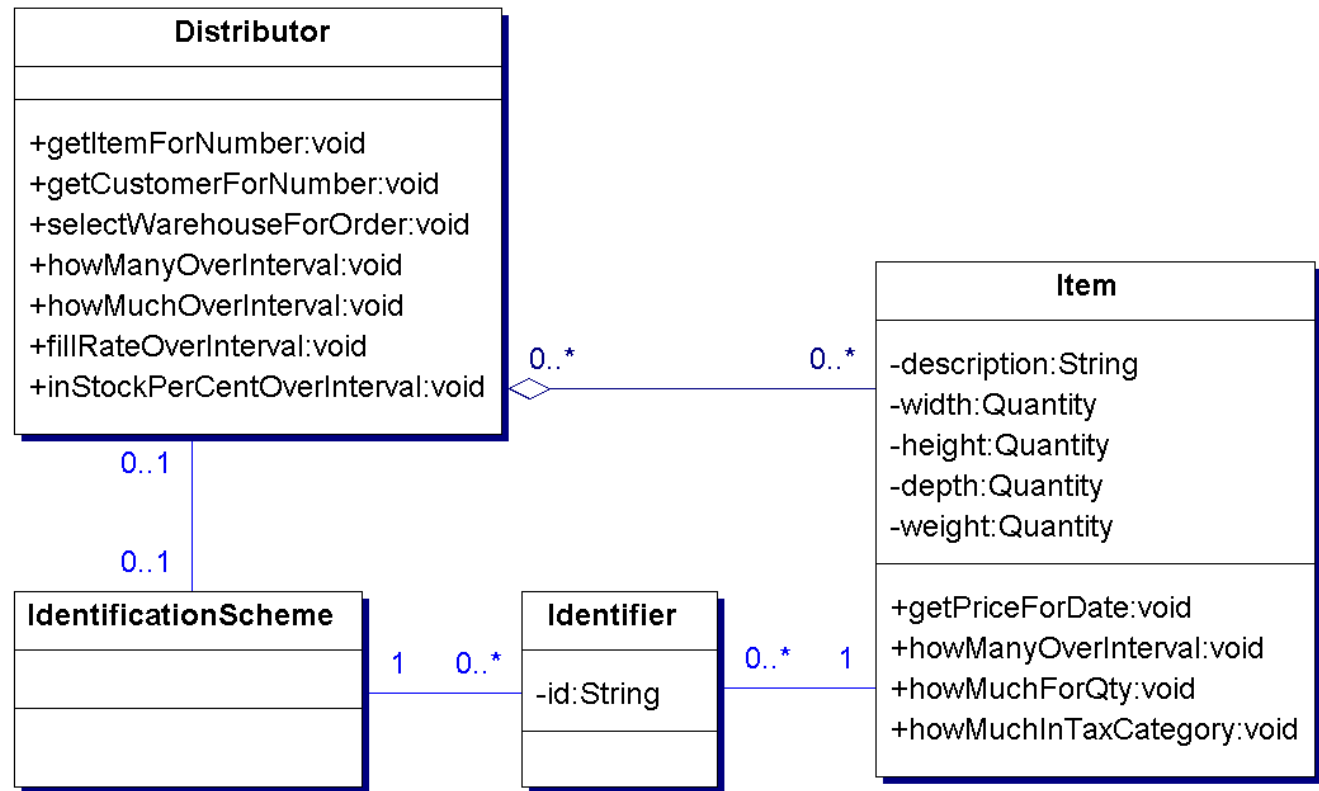
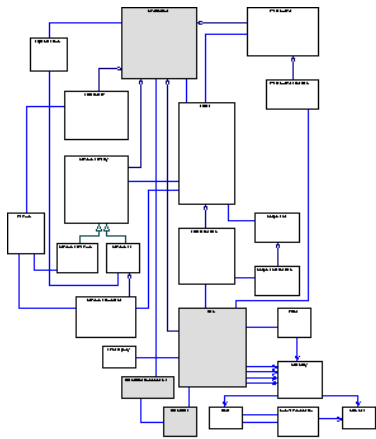
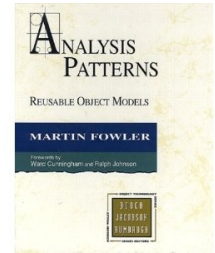
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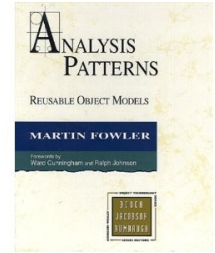


Referring to Objects – Identification Scheme pattern



Ollie's Order Center: Identification Scheme pattern

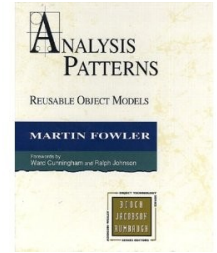




Analysis Patterns

Part 2/2

Studied patterns



✧ Inventory and Accounting

- Account pattern
- Transactions pattern

✧ Planning

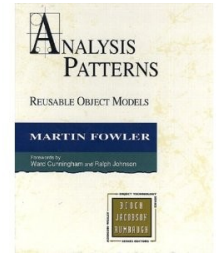
- Proposed and Implemented Action pattern
- Completed and Abandoned Actions pattern

✧ Trading

- Contract pattern
- Portfolio pattern

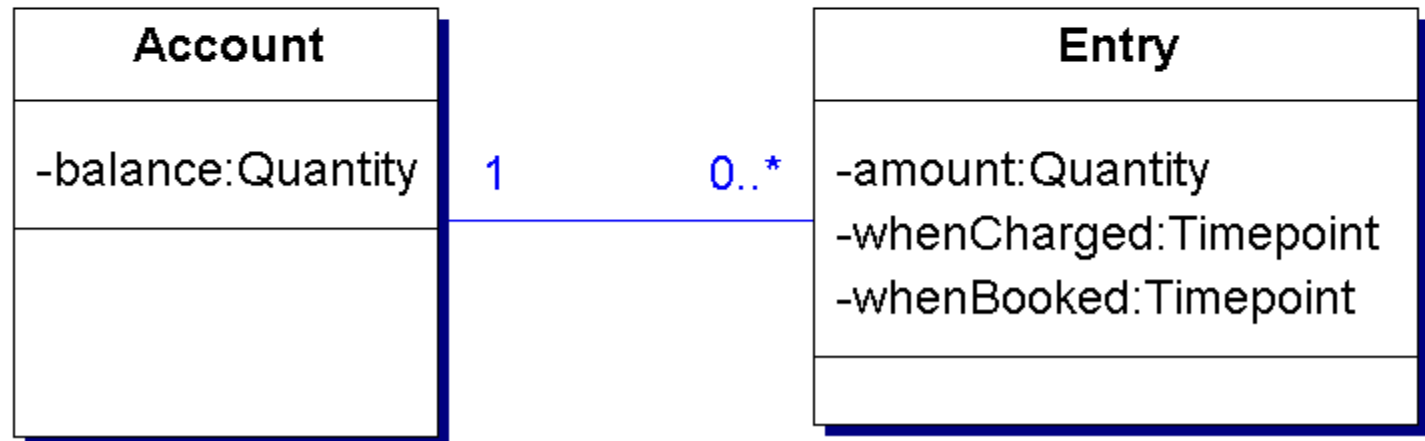
✧ Derivative Contracts

- Forward Contracts pattern

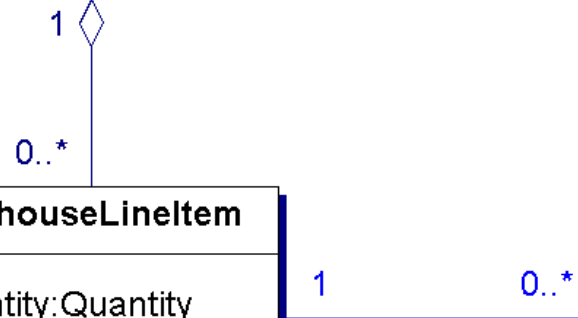
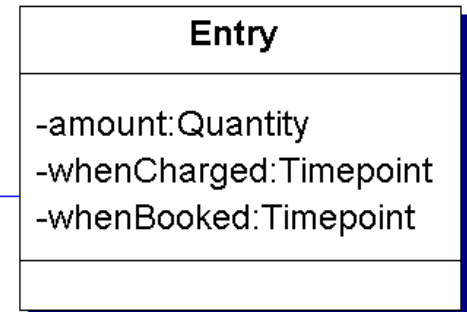
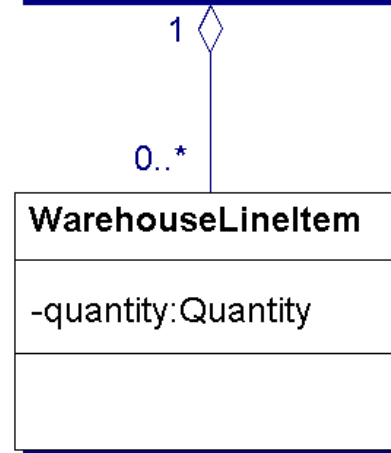
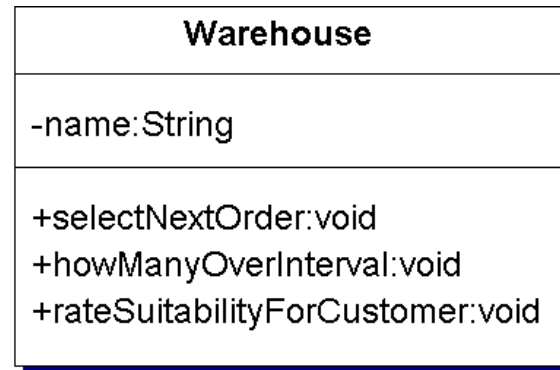
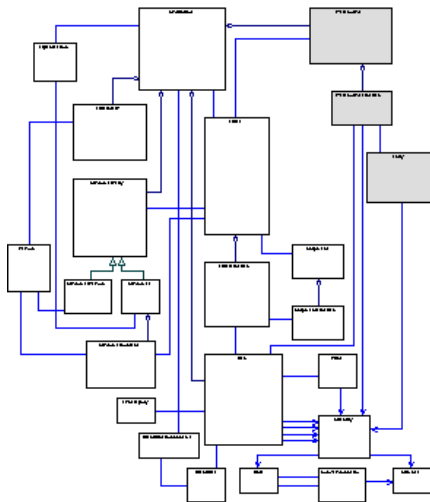
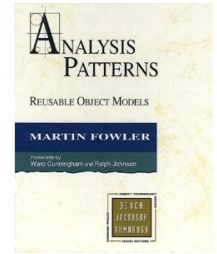


Inventory and Accounting – Account pattern

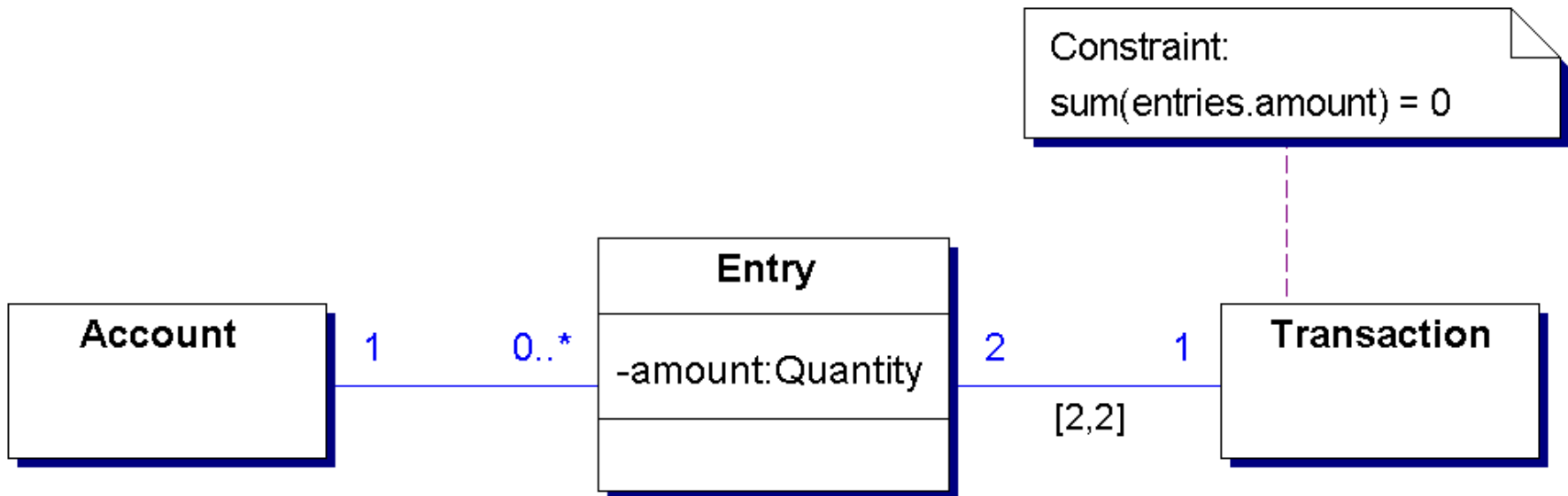
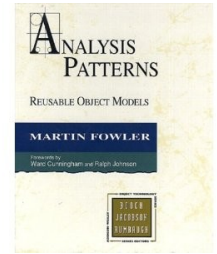
Constraint:
balance = sum(entries.amount)



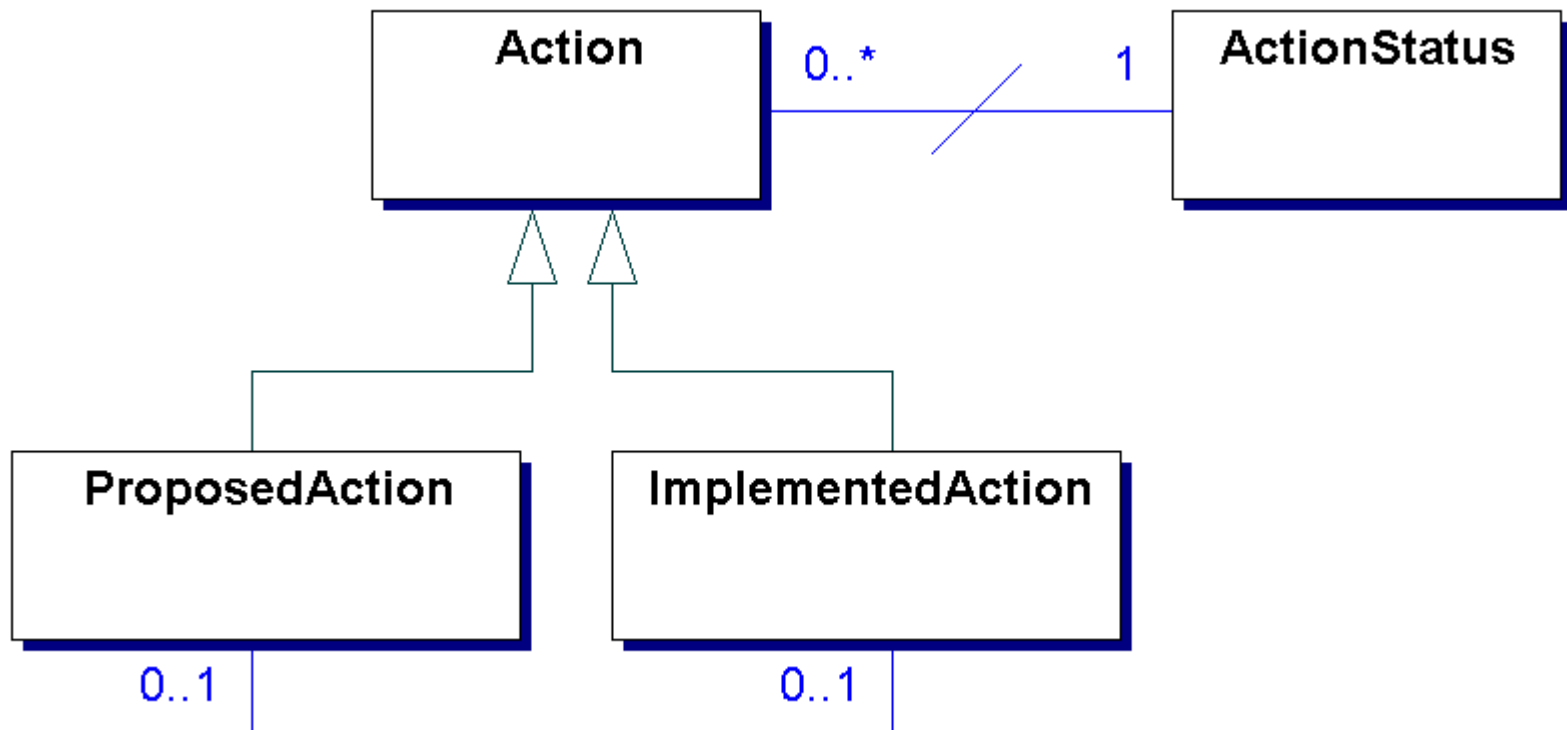
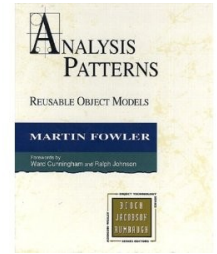
Ollie's Order Center: Account pattern



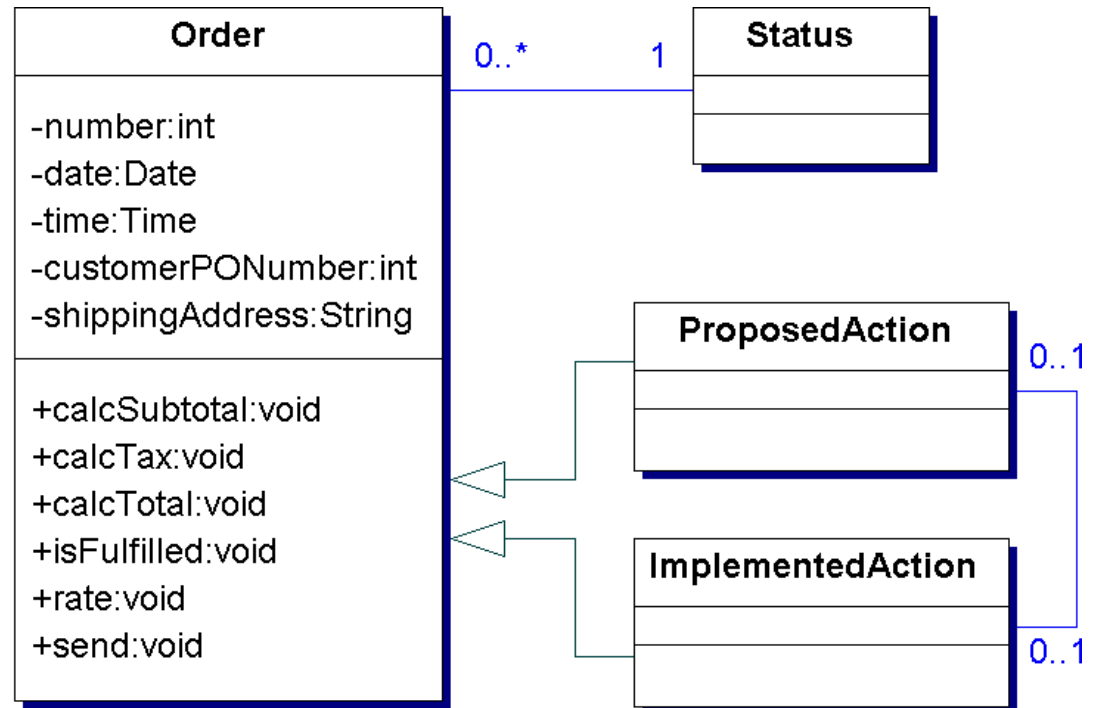
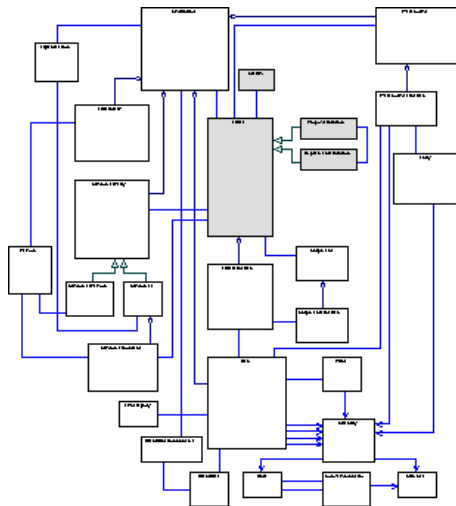
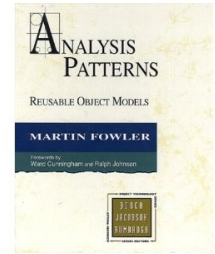
Inventory and Accounting – Transactions pattern



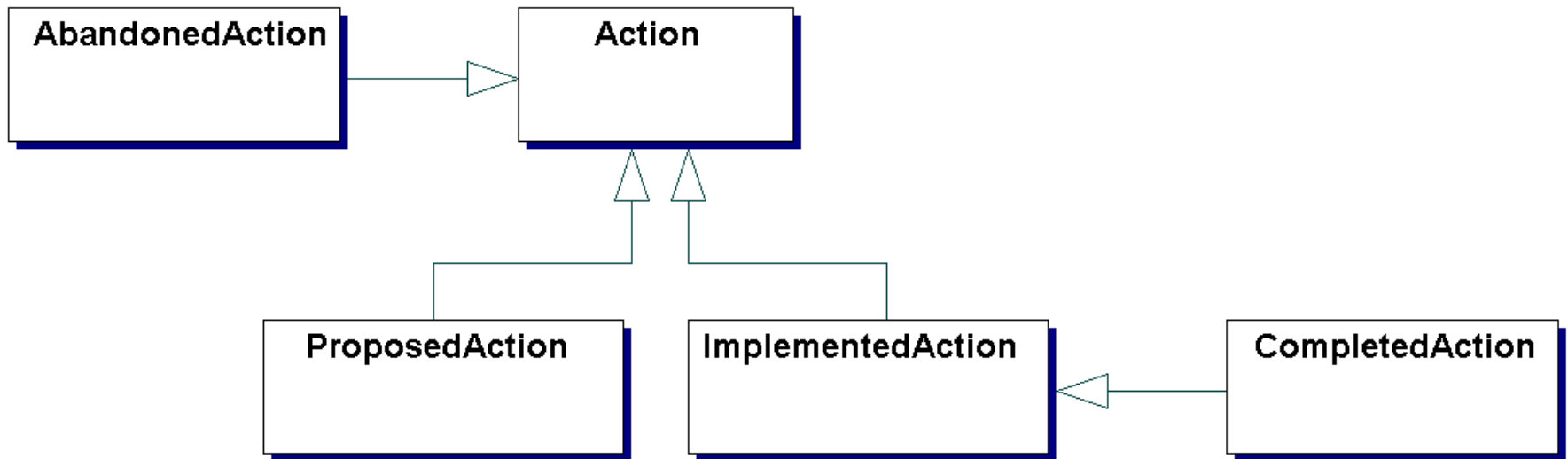
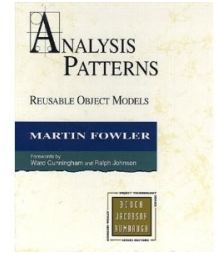
Planning – Proposed and Implemented Action pattern



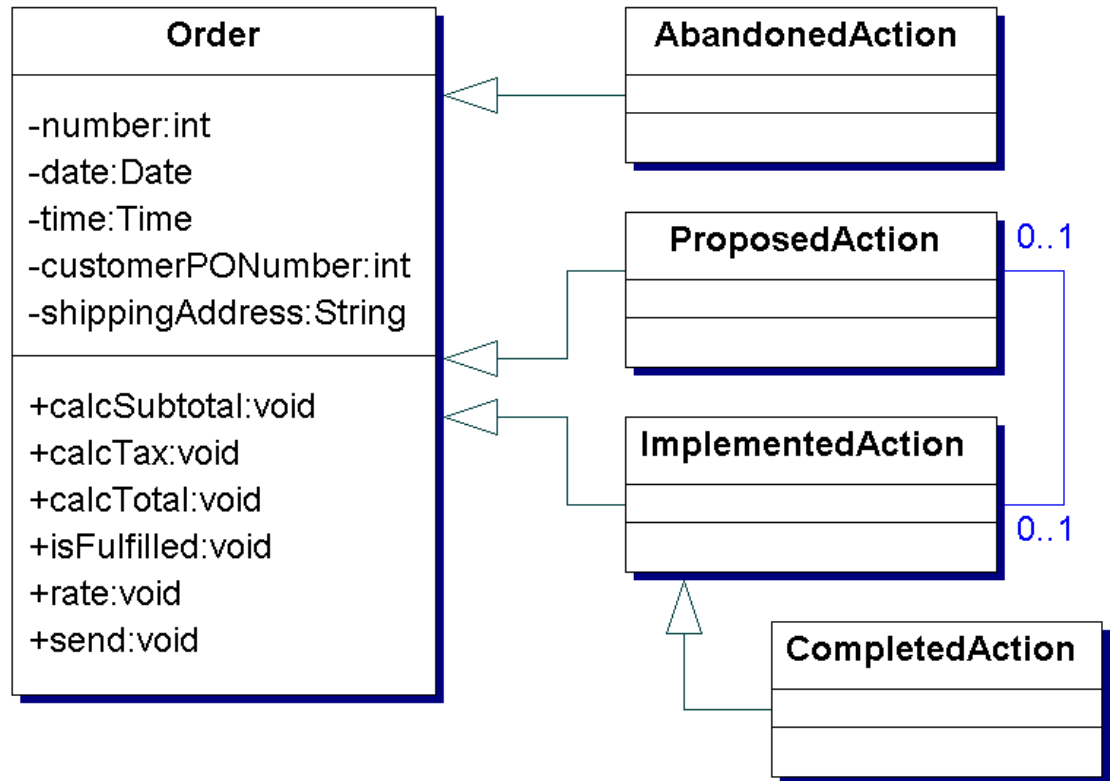
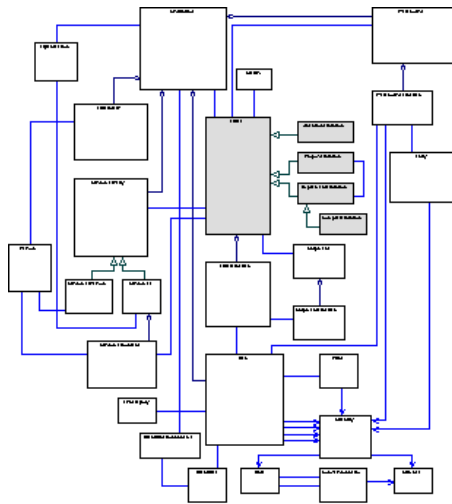
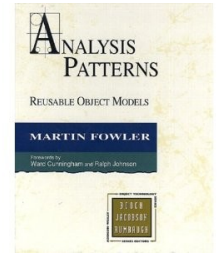
Ollie's Order Center: Proposed and Implemented Action pattern



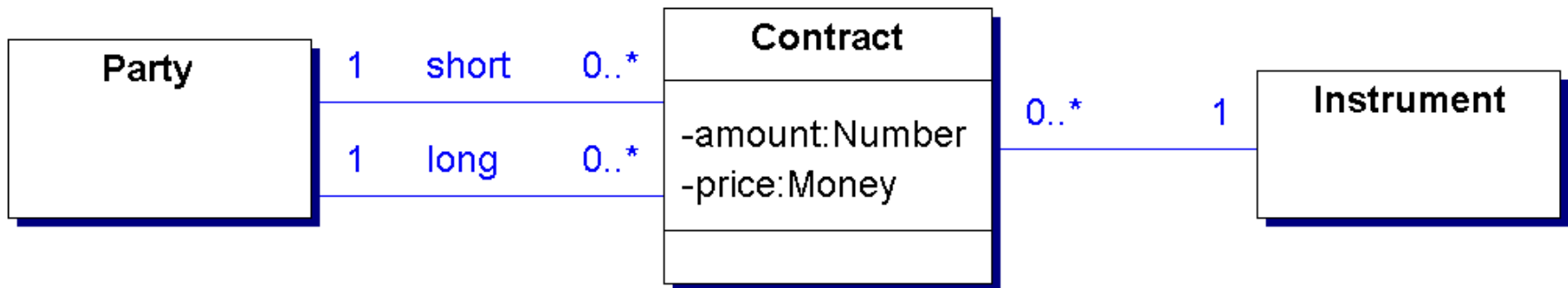
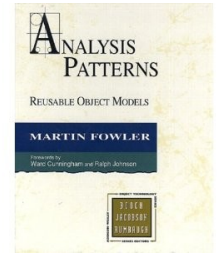
Planning – Completed and Abandoned Actions pattern



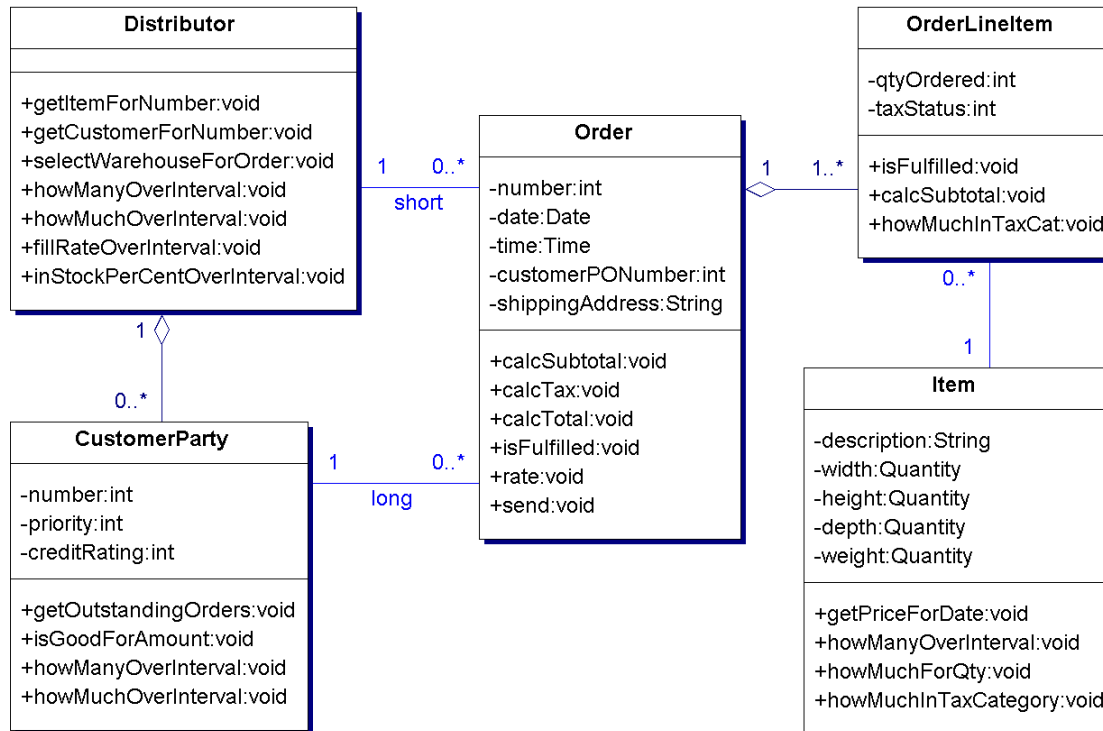
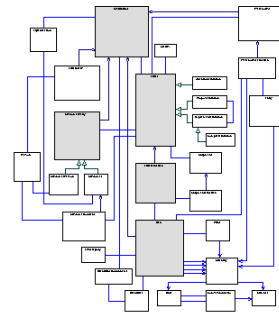
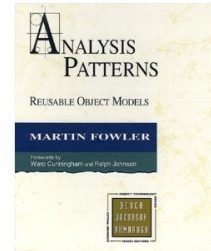
Ollie's Order Center: Completed and Abandoned Actions pattern



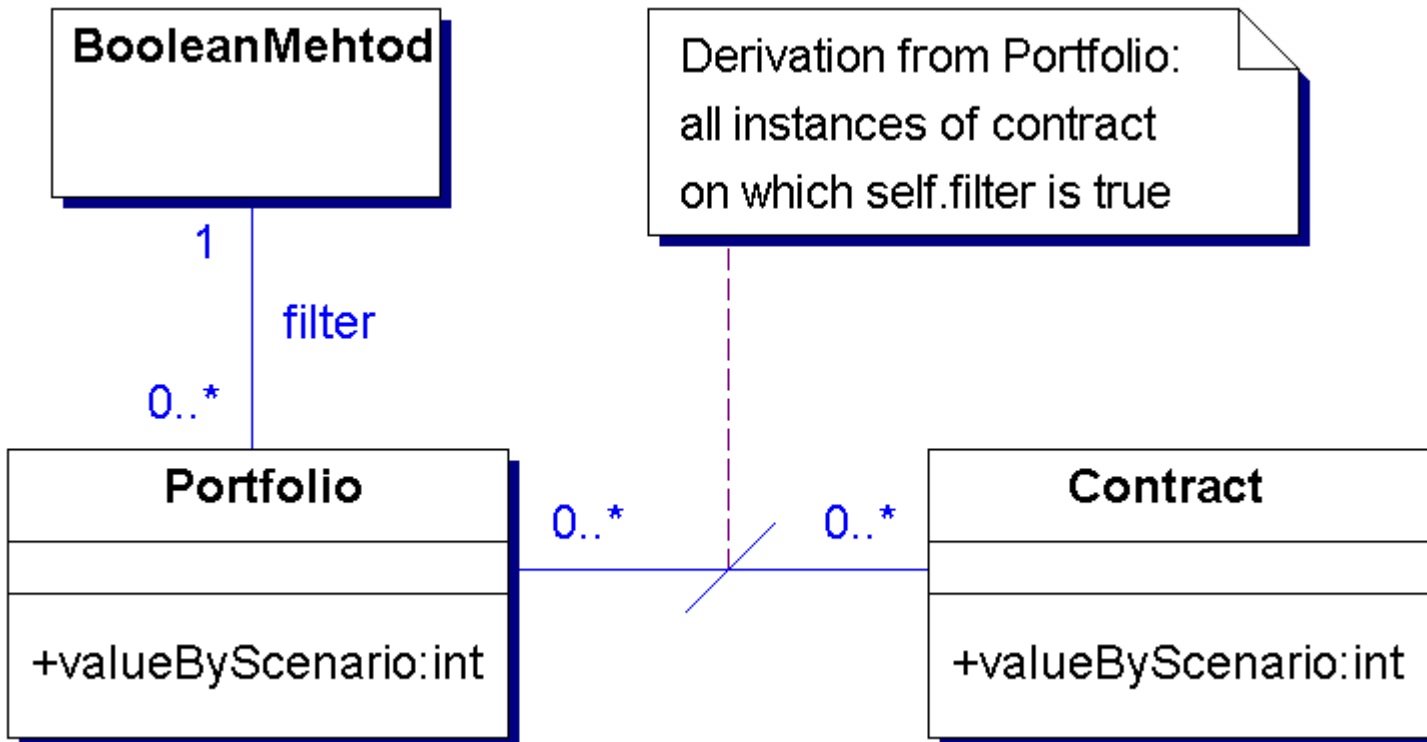
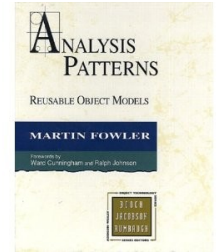
Trading – Contract pattern



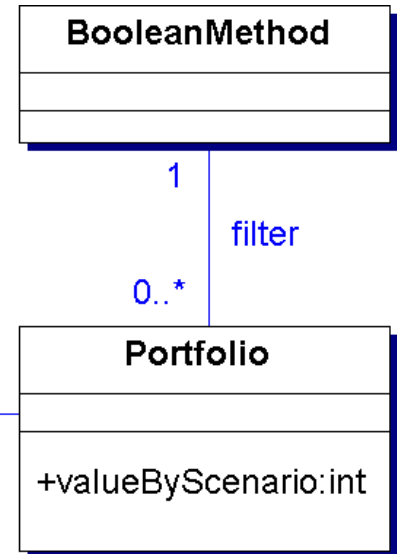
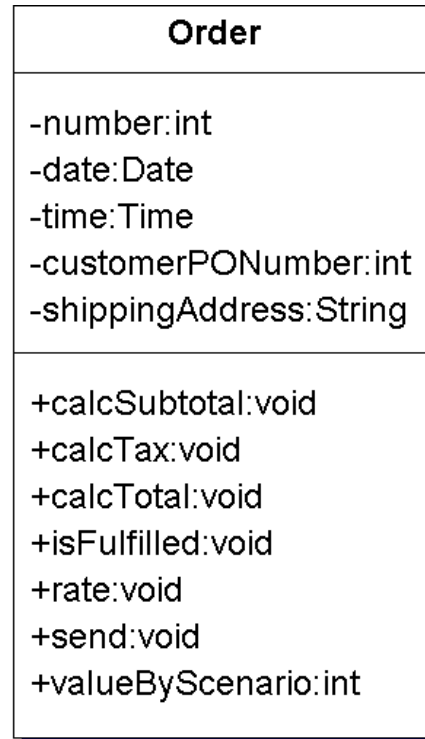
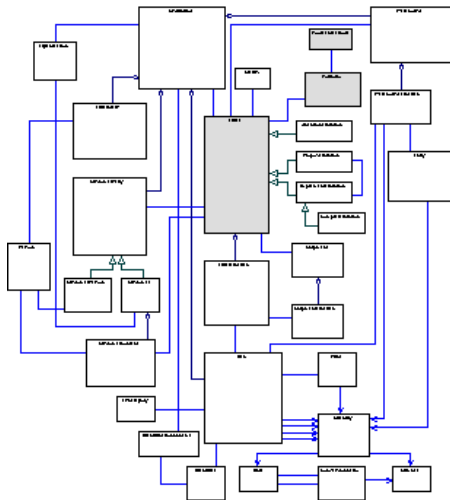
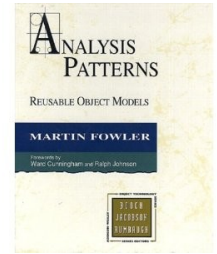
Ollie's Order Center: Contract pattern



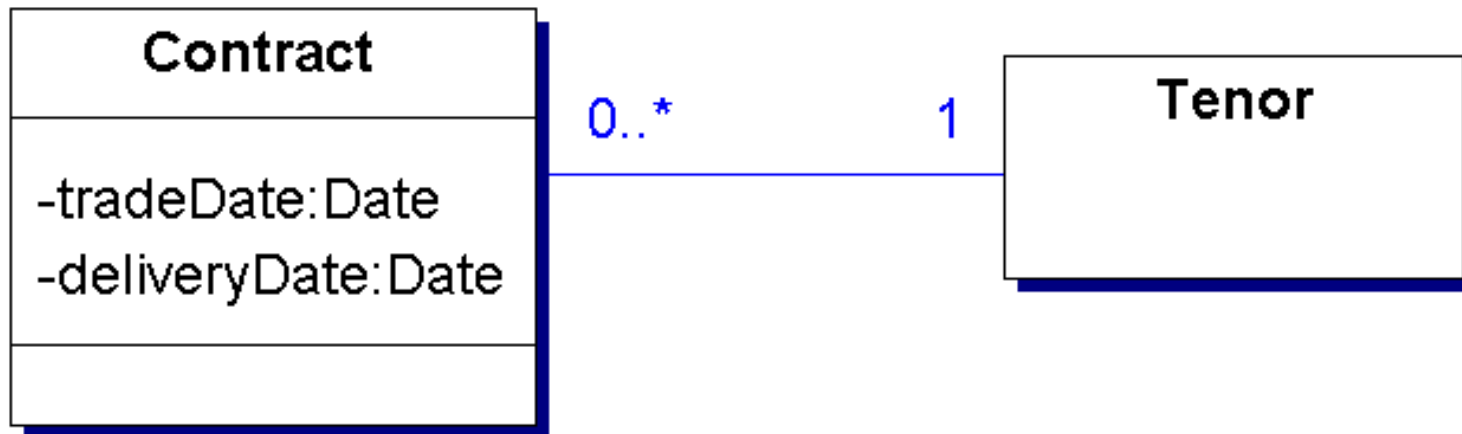
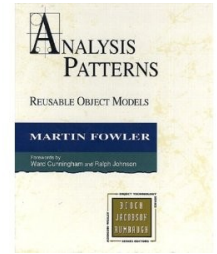
Trading – Portfolio pattern



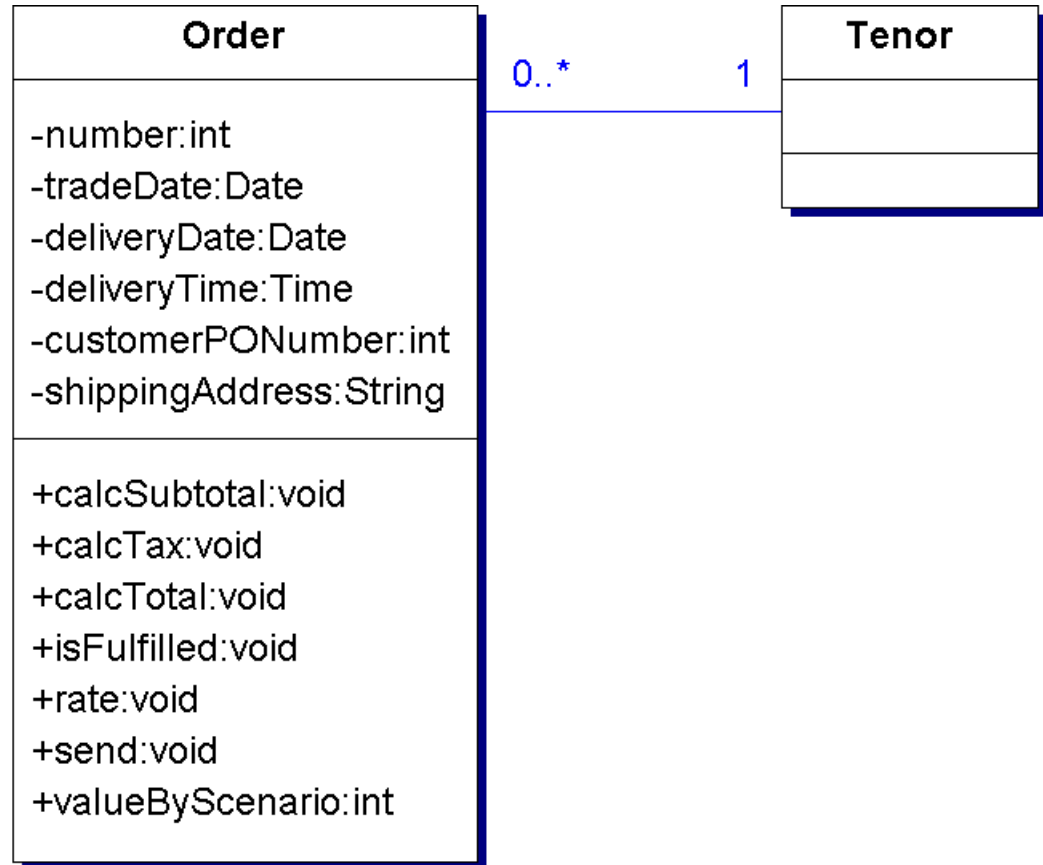
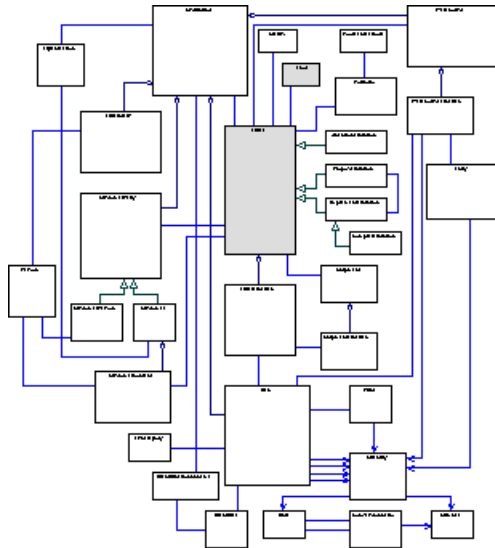
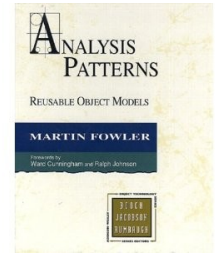
Ollie's Order Center: Portfolio pattern



Derivative Contracts – Forward Contracts pattern



Ollie's Order Center: Forward Contracts pattern



Ollie's Order Center after patterns inclusion

