## Classes

## Acquisition

Acquisition  $\sqsubseteq$  Transaction

## $\mathbf{Address}$

 $\begin{array}{l} {\rm Address} \sqsubseteq {\rm Thing} \\ {\rm Address} \sqsubseteq \exists \ {\rm inverseofhasAddress} \ {\rm Thing} \end{array}$ 

## Company

Company  $\sqsubseteq$  LegalPerson

#### Dealer

 $\begin{array}{l} \text{Dealer} \equiv \text{Trader} \\ \text{Dealer} \sqsubseteq \text{StockBroker} \end{array}$ 

#### FinantialInstrument

#### Investor

 $\begin{array}{c} \text{Investor} \sqsubseteq \text{Thing} \\ \text{Investor} \sqsubseteq \text{Person} \end{array}$ 

## LegalPerson

 $\operatorname{LegalPerson} \sqsubseteq \operatorname{Person}$ 

## Offer

Offer  $\sqsubseteq$  Transaction

#### Person

 $\begin{array}{l} \operatorname{Person} \sqsubseteq \operatorname{Thing} \\ \operatorname{Person} \sqsubseteq \exists \ \operatorname{hasAddress} \ \operatorname{Thing} \end{array}$ 

## ${\bf Physical Person}$

 $\begin{aligned} & Physical Person & \sqsubseteq \ Person \\ & Physical Person & \sqsubseteq \ \neg Legal Person \end{aligned}$ 

#### Stock

 $\begin{array}{l} Stock \sqsubseteq FinantialInstrument \\ Stock \sqsubseteq \exists \ isListedIn \ Thing \\ Stock \sqsubseteq \exists \ belongsToCompany \ Thing \\ \end{array}$ 

Stoc	kBr	oker

 $\begin{array}{l} StockBroker \sqsubseteq \exists \ tradesOnBehalfOf \ Thing \\ StockBroker \sqsubseteq StockExchangeMember \end{array}$ 

### ${\bf Stock Exchange List}$

## ${\bf Stock Exchange Member}$

 $\begin{aligned} & StockExchangeMember \sqsubseteq Thing \\ & StockExchangeMember \sqsubseteq Person \end{aligned}$ 

#### StockTrader

 $\begin{aligned} & StockTrader \equiv Trader \\ & StockTrader \sqsubseteq StockBroker \end{aligned}$ 

## Thing

#### Trader

 $\begin{aligned} & \operatorname{Trader} \equiv \operatorname{StockTrader} \\ & \operatorname{Trader} \equiv \operatorname{Dealer} \\ & \operatorname{Trader} \sqsubseteq \operatorname{StockBroker} \end{aligned}$ 

#### Transaction

Transaction  $\sqsubseteq \exists$  involvesInstrument Thing Transaction  $\sqsubseteq$  Thing Transaction  $\sqsubseteq \exists$  isExecutedFor Thing Transaction  $\sqsubseteq \exists$  isExecutedBy Thing

# Object properties

# ${\bf belongs To Company}$

 $\begin{array}{l} belongsToCompany \equiv hasStock^- \\ \exists \ belongsToCompany \ Thing \sqsubseteq Stock \\ \top \sqsubseteq \forall \ belongsToCompany \ Company \end{array}$ 

#### hasAddress

 $\begin{aligned} & \text{hasAddress} \equiv \text{inverseofhasAddress}^- \\ & \exists \text{ hasAddress Thing} \sqsubseteq \text{Person} \\ & \top \sqsubseteq \forall \text{ hasAddress Address} \end{aligned}$ 

#### hasStock

 $\begin{array}{l} belongs To Company \equiv has Stock^- \\ \exists \ has Stock \ Thing \sqsubseteq Company \\ \top \sqsubseteq \forall \ has Stock \ Stock \end{array}$ 

#### inverse of has Address

 $\begin{aligned} & \text{hasAddress} \equiv \text{inverseofhasAddress}^{-} \\ & \exists \text{ inverseofhasAddress Thing } \sqsubseteq \text{Address} \\ & \top \sqsubseteq \forall \text{ inverseofhasAddress Person} \end{aligned}$ 

## involves Instrument

$$\begin{split} & \text{involvesInstrument} \equiv \text{isTradedIn}^- \\ & \exists \text{ involvesInstrument Thing} \sqsubseteq \text{Transaction} \\ & \top \sqsubseteq \forall \text{ involvesInstrument FinantialInstrument} \end{split}$$

#### **isExecutedBy**

 $\exists \ is Executed By \ Thing \sqsubseteq Transaction \\ \top \sqsubseteq \forall \ is Executed By \ Stock Exchange Member$ 

#### is Executed For

 $\exists \ is Executed For \ Thing \sqsubseteq Transaction \\ \top \sqsubseteq \forall \ is Executed For \ Investor$ 

#### isListedIn

$$\begin{split} & isListedIn \equiv listsStock^- \\ & \exists \ isListedIn \ Thing \sqsubseteq Stock \\ & \top \sqsubseteq \forall \ isListedIn \ StockExchangeList \end{split}$$

#### isTradedIn

involves Instrument  $\equiv$  isTradedIn $^ \top$   $\sqsubseteq$   $\forall$  isTradedIn Transaction

#### listsStock

 $isListedIn \equiv listsStock^- \\ \top \sqsubseteq \forall \ listsStock \ Stock$ 

#### trades On Behalf Of

 $tradesOnBehalfOf \equiv usesBroker^-$ 

# usesBroker

 $tradesOnBehalfOf \equiv usesBroker^-$ 

Data properties

Individuals

Datatypes