Classes

Above65

Above65 ⊑ AgeValue

Account

Account ⊑ ¬ Transaction
Account ⊑ ¬ Loan
Account ⊑ ¬ Client
Account ⊑ ¬ LoanStatusValue
Account ⊑ ¬ PermanentOrder
Account ⊑ ¬ Payment
Account ⊑ ¬ Region
Account ⊑ ¬ CreditCard
Account ⊑ ¬ AgeValue
Account ⊑ ¬ SexValue

AfterTransaction

AfterTransaction ⊑ StatementIssuanceFrequencyValue
AfterTransaction ⊑ ¬ Monthly
AfterTransaction ⊑ ¬ Weekly

AgeValue

AgeValue ⊑ ¬ SexValue
AgeValue ⊑ ¬ LoanStatusValue
AgeValue ⊑ ¬ Region
AgeValue ⊑ ¬ CreditCard
AgeValue ⊑ ¬ Transaction
AgeValue ⊑ ¬ Client
AgeValue ⊑ ¬ Account
AgeValue ⊑ ¬ Loan
AgeValue ⊑ ¬ PermanentOrder
AgeValue ⊑ ¬ Payment

Below18

Below18 ⊑ AgeValue
Below18 ⊑ ¬ From25To35
Below18 ⊑ ¬ From50To65
Below18 ⊑ ¬ From18To25
Below18 ⊑ ¬ From35To50

CashCredit

CashCredit $\sqsubseteq$ Credit
CashCredit $\sqsubseteq$ $\neg$ CollectionAnotherBank

CashWithdrawal

CashWithdrawal $\sqsubseteq$ Withdrawal
CashWithdrawal $\sqsubseteq$ $\neg$ CreditCardWithdrawal
CashWithdrawal $\sqsubseteq$ $\neg$ RemittanceAnotherBank

CentralBohemia

CentralBohemia $\sqsubseteq$ Region
CentralBohemia $\sqsubseteq$ $\neg$ SouthBohemia
CentralBohemia $\sqsubseteq$ $\neg$ EastBohemia
CentralBohemia $\sqsubseteq$ $\neg$ Prague
CentralBohemia $\sqsubseteq$ $\neg$ NorthMoravia
CentralBohemia $\sqsubseteq$ $\neg$ SouthMoravia
CentralBohemia $\sqsubseteq$ $\neg$ NorthBohemia

Classic

Classic $\sqsubseteq$ CreditCard
Classic $\sqsubseteq$ $\neg$ Gold
Classic $\sqsubseteq$ $\neg$ Junior

Client

Client $\sqsubseteq$ $\neg$ PermanentOrder
Client $\sqsubseteq$ $\neg$ Payment
Client $\sqsubseteq$ $\neg$ Account
Client $\sqsubseteq$ $\neg$ LoanStatusValue
Client $\sqsubseteq$ $\neg$ CreditCard
Client $\sqsubseteq$ $\neg$ AgeValue
Client $\sqsubseteq$ $\neg$ Transaction
Client $\sqsubseteq$ $\neg$ Region
Client $\sqsubseteq$ $\neg$ Loan
Client $\sqsubseteq$ $\neg$ SexValue

CollectionAnotherBank

CollectionAnotherBank $\sqsubseteq$ Credit
CollectionAnotherBank $\sqsubseteq$ $\neg$ CashCredit

Credit

Credit $\sqsubseteq$ Transaction

Credit ⊑ ¬ Withdrawal

CreditCard

CreditCard ⊑ ¬ Transaction
CreditCard ⊑ ¬ AgeValue
CreditCard ⊑ ¬ Loan
CreditCard ⊑ ¬ Client
CreditCard ⊑ ¬ Region
CreditCard ⊑ ¬ SexValue
CreditCard ⊑ ¬ Account
CreditCard ⊑ ¬ Payment
CreditCard ⊑ ¬ PermanentOrder
CreditCard ⊑ ¬ LoanStatusValue

CreditCardWithdrawal

CreditCardWithdrawal ⊑ Withdrawal
CreditCardWithdrawal ⊑ ¬ CashWithdrawal
CreditCardWithdrawal ⊑ ¬ RemittanceAnotherBank

DebtRunningLoan

DebtRunningLoan ⊑ Running
DebtRunningLoan ⊑ ∀ hasLoanStatusValue ProblemStatus
DebtRunningLoan ⊑ ¬ OKRunningLoan

EastBohemia

EastBohemia ⊑ Region
EastBohemia ⊑ ¬ CentralBohemia
EastBohemia ⊑ ¬ NorthBohemia
EastBohemia ⊑ ¬ SouthBohemia
EastBohemia ⊑ ¬ Prague
EastBohemia ⊑ ¬ NorthMoravia
EastBohemia ⊑ ¬ SouthMoravia

FemaleSex

FemaleSex ⊑ SexValue
FemaleSex ⊑ ¬ MaleSex

Finished

Finished ⊑ Loan
Finished ⊑ ¬ Running

ForStatementPayment

ForStatementPayment $\sqsubseteq$ Payment
ForStatementPayment $\sqsubseteq$ $\neg$ HouseholdPayment
ForStatementPayment $\sqsubseteq$ $\neg$ Leasing
ForStatementPayment $\sqsubseteq$ $\neg$ LoanPayment
ForStatementPayment $\sqsubseteq$ $\neg$ InsurrancePayment

From18To25

From18To25 $\sqsubseteq$ AgeValue
From18To25 $\sqsubseteq$ $\neg$ Below18
From18To25 $\sqsubseteq$ $\neg$ From50To65
From18To25 $\sqsubseteq$ $\neg$ From25To35
From18To25 $\sqsubseteq$ $\neg$ From35To50

From25To35

From25To35 $\sqsubseteq$ AgeValue
From25To35 $\sqsubseteq$ $\neg$ Below18
From25To35 $\sqsubseteq$ $\neg$ From35To50
From25To35 $\sqsubseteq$ $\neg$ From18To25
From25To35 $\sqsubseteq$ $\neg$ From50To65

From35To50

From35To50 $\sqsubseteq$ AgeValue
From35To50 $\sqsubseteq$ $\neg$ From25To35
From35To50 $\sqsubseteq$ $\neg$ From18To25
From35To50 $\sqsubseteq$ $\neg$ From50To65
From35To50 $\sqsubseteq$ $\neg$ Below18

From50To65

From50To65 $\sqsubseteq$ AgeValue
From50To65 $\sqsubseteq$ $\neg$ Below18
From50To65 $\sqsubseteq$ $\neg$ From18To25
From50To65 $\sqsubseteq$ $\neg$ From25To35
From50To65 $\sqsubseteq$ $\neg$ From35To50

Gold

Gold $\sqsubseteq$ CreditCard
Gold $\sqsubseteq$ $\neg$ Classic
Gold $\sqsubseteq$ $\neg$ Junior

HouseholdPayment

HouseholdPayment $\sqsubseteq$ Payment
HouseholdPayment $\sqsubseteq \neg$ ForStatementPayment
HouseholdPayment $\sqsubseteq \neg$ InsurrancePayment
HouseholdPayment $\sqsubseteq \neg$ LoanPayment
HouseholdPayment $\sqsubseteq \neg$ Leasing

InsurrancePayment

InsurrancePayment $\sqsubseteq$ Payment
InsurrancePayment $\sqsubseteq \neg$ LoanPayment
InsurrancePayment $\sqsubseteq \neg$ Leasing
InsurrancePayment $\sqsubseteq \neg$ HouseholdPayment
InsurrancePayment $\sqsubseteq \neg$ ForStatementPayment

InterestsCredited

InterestsCredited $\sqsubseteq$ Credit

Junior

Junior $\sqsubseteq$ CreditCard
Junior $\sqsubseteq \neg$ Gold
Junior $\sqsubseteq \neg$ Classic

Leasing

Leasing $\sqsubseteq$ Payment
Leasing $\sqsubseteq \neg$ LoanPayment
Leasing $\sqsubseteq \neg$ InsurrancePayment
Leasing $\sqsubseteq \neg$ ForStatementPayment
Leasing $\sqsubseteq \neg$ HouseholdPayment

Loan

Loan $\sqsubseteq \neg$ Account
Loan $\sqsubseteq \neg$ LoanStatusValue
Loan $\sqsubseteq \neg$ Payment
Loan $\sqsubseteq \neg$ Transaction
Loan $\sqsubseteq \neg$ PermanentOrder
Loan $\sqsubseteq \neg$ CreditCard
Loan $\sqsubseteq \neg$ AgeValue
Loan $\sqsubseteq \neg$ Client
Loan $\sqsubseteq \neg$ Region
Loan $\sqsubseteq \neg$ SexValue

LoanPayment

LoanPayment ⊑ Payment
LoanPayment ⊑ ¬ InsurrancePayment
LoanPayment ⊑ ¬ Leasing
LoanPayment ⊑ ¬ HouseholdPayment
LoanPayment ⊑ ¬ ForStatementPayment

LoanStatusValue

LoanStatusValue ⊑ ¬ Loan
LoanStatusValue ⊑ ¬ AgeValue
LoanStatusValue ⊑ ¬ Transaction
LoanStatusValue ⊑ ¬ Account
LoanStatusValue ⊑ ¬ Payment
LoanStatusValue ⊑ ¬ Client
LoanStatusValue ⊑ ¬ PermanentOrder
LoanStatusValue ⊑ ¬ Region
LoanStatusValue ⊑ ¬ SexValue
LoanStatusValue ⊑ ¬ CreditCard

MaleSex

MaleSex ⊑ SexValue
MaleSex ⊑ ¬ FemaleSex

Man

Man ⊑ Client
Man ⊑ ∀ hasSexValue MaleSex
Man ⊑ ¬ Woman

Monthly

Monthly ⊑ StatementIssuanceFrequencyValue
Monthly ⊑ ¬ Weekly
Monthly ⊑ ¬ AfterTransaction

NoProblemsFinishedLoan

NoProblemsFinishedLoan ⊑ ∀ hasLoanStatusValue OKStatus
NoProblemsFinishedLoan ⊑ Finished
NoProblemsFinishedLoan ⊑ ¬ NotPaidFinishedLoan

NorthBohemia

NorthBohemia ⊑ Region
NorthBohemia ⊑ ¬ SouthBohemia

NorthBohemia ⊑ ¬ EastBohemia
NorthBohemia ⊑ ¬ Prague
NorthBohemia ⊑ ¬ NorthMoravia
NorthBohemia ⊑ ¬ SouthMoravia
NorthBohemia ⊑ ¬ CentralBohemia

NorthMoravia

NorthMoravia ⊑ Region
NorthMoravia ⊑ ¬ SouthMoravia
NorthMoravia ⊑ ¬ NorthBohemia
NorthMoravia ⊑ ¬ CentralBohemia
NorthMoravia ⊑ ¬ EastBohemia
NorthMoravia ⊑ ¬ SouthBohemia
NorthMoravia ⊑ ¬ Prague

NotPaidFinishedLoan

NotPaidFinishedLoan ⊑ ∀ hasLoanStatusValue ProblemStatus
NotPaidFinishedLoan ⊑ Finished
NotPaidFinishedLoan ⊑ ¬ NoProblemsFinishedLoan

OKRunningLoan

OKRunningLoan ⊑ Running
OKRunningLoan ⊑ ∀ hasLoanStatusValue OKStatus
OKRunningLoan ⊑ ¬ DebtRunningLoan

OKStatus

OKStatus ⊑ LoanStatusValue
OKStatus ⊑ ¬ ProblemStatus

OldAgePension

OldAgePension ⊑ CollectionAnotherBank

Payment

Payment ⊑ ¬ Client
Payment ⊑ ¬ Loan
Payment ⊑ ¬ LoanStatusValue
Payment ⊑ ¬ Region
Payment ⊑ ¬ Transaction
Payment ⊑ ¬ Account
Payment ⊑ ¬ CreditCard
Payment ⊑ ¬ SexValue

Payment ⊑ ¬ PermanentOrder
Payment ⊑ ¬ AgeValue

PermanentOrder

PermanentOrder ⊑ Thing
PermanentOrder ⊑ ∀ isPermanentOrderFor Payment
PermanentOrder ⊑ ¬ Client
PermanentOrder ⊑ ¬ SexValue
PermanentOrder ⊑ ¬ Region
PermanentOrder ⊑ ¬ Loan
PermanentOrder ⊑ ¬ Account
PermanentOrder ⊑ ¬ LoanStatusValue
PermanentOrder ⊑ ¬ Transaction
PermanentOrder ⊑ ¬ CreditCard
PermanentOrder ⊑ ¬ AgeValue
PermanentOrder ⊑ ¬ Payment

Prague

Prague ⊑ Region
Prague ⊑ ¬ NorthBohemia
Prague ⊑ ¬ SouthMoravia
Prague ⊑ ¬ CentralBohemia
Prague ⊑ ¬ SouthBohemia
Prague ⊑ ¬ EastBohemia
Prague ⊑ ¬ NorthMoravia

ProblemStatus

ProblemStatus ⊑ LoanStatusValue
ProblemStatus ⊑ ¬ OKStatus

Region

Region ⊑ ¬ Transaction
Region ⊑ ¬ AgeValue
Region ⊑ ¬ PermanentOrder
Region ⊑ ¬ Payment
Region ⊑ ¬ CreditCard
Region ⊑ ¬ Account
Region ⊑ ¬ SexValue
Region ⊑ ¬ Client
Region ⊑ ¬ LoanStatusValue
Region ⊑ ¬ Loan

RemittanceAnotherBank

RemittanceAnotherBank $\sqsubseteq$ Withdrawal
RemittanceAnotherBank $\sqsubseteq$ $\neg$ CashWithdrawal
RemittanceAnotherBank $\sqsubseteq$ $\neg$ CreditCardWithdrawal

Running

Running $\sqsubseteq$ Loan
Running $\sqsubseteq$ $\neg$ Finished

SanctionInterestCashWithdrawal

SanctionInterestCashWithdrawal $\sqsubseteq$ CashWithdrawal

SexValue

SexValue $\sqsubseteq$ $\neg$ AgeValue
SexValue $\sqsubseteq$ $\neg$ PermanentOrder
SexValue $\sqsubseteq$ $\neg$ Transaction
SexValue $\sqsubseteq$ $\neg$ CreditCard
SexValue $\sqsubseteq$ $\neg$ Region
SexValue $\sqsubseteq$ $\neg$ Payment
SexValue $\sqsubseteq$ $\neg$ Account
SexValue $\sqsubseteq$ $\neg$ LoanStatusValue
SexValue $\sqsubseteq$ $\neg$ Client
SexValue $\sqsubseteq$ $\neg$ Loan

SouthBohemia

SouthBohemia $\sqsubseteq$ Region
SouthBohemia $\sqsubseteq$ $\neg$ CentralBohemia
SouthBohemia $\sqsubseteq$ $\neg$ NorthBohemia
SouthBohemia $\sqsubseteq$ $\neg$ EastBohemia
SouthBohemia $\sqsubseteq$ $\neg$ Prague
SouthBohemia $\sqsubseteq$ $\neg$ SouthMoravia
SouthBohemia $\sqsubseteq$ $\neg$ NorthMoravia

SouthMoravia

SouthMoravia $\sqsubseteq$ Region
SouthMoravia $\sqsubseteq$ $\neg$ NorthMoravia
SouthMoravia $\sqsubseteq$ $\neg$ Prague
SouthMoravia $\sqsubseteq$ $\neg$ NorthBohemia
SouthMoravia $\sqsubseteq$ $\neg$ SouthBohemia
SouthMoravia $\sqsubseteq$ $\neg$ CentralBohemia
SouthMoravia $\sqsubseteq$ $\neg$ EastBohemia

StatementIssuanceFrequencyValue

Thing

Transaction

Transaction $\sqsubseteq \neg$ Account
Transaction $\sqsubseteq \neg$ Region
Transaction $\sqsubseteq \neg$ CreditCard
Transaction $\sqsubseteq \neg$ LoanStatusValue
Transaction $\sqsubseteq \neg$ Loan
Transaction $\sqsubseteq \neg$ Payment
Transaction $\sqsubseteq \neg$ AgeValue
Transaction $\sqsubseteq \neg$ SexValue
Transaction $\sqsubseteq \neg$ PermanentOrder
Transaction $\sqsubseteq \neg$ Client

Weekly

Weekly $\sqsubseteq$ StatementIssuanceFrequencyValue
Weekly $\sqsubseteq \neg$ Monthly
Weekly $\sqsubseteq \neg$ AfterTransaction

WestBohemia

WestBohemia $\sqsubseteq$ Region

Withdrawal

Withdrawal $\sqsubseteq$ Transaction
Withdrawal $\sqsubseteq \neg$ Credit

Woman

Woman $\sqsubseteq$ Client
Woman $\sqsubseteq \forall$ hasSexValue FemaleSex
Woman $\sqsubseteq \neg$ Man

Object properties

IsLoanOf

IsLoanOf $\equiv$ hasLoan$^-$
$\top \sqsubseteq \leq 1$ IsLoanOf Thing
$\top \sqsubseteq \leq 1$ IsLoanOf$^-$ Thing
$\exists$ IsLoanOf Thing $\sqsubseteq$ Loan
$\top \sqsubseteq \forall$ IsLoanOf Account

hasAgeValue

$\top \sqsubseteq\ \leq 1$ hasAgeValue Thing
$\exists$ hasAgeValue Thing $\sqsubseteq$ Client
$\top \sqsubseteq\ \forall$ hasAgeValue AgeValue

hasCreditCard

hasCreditCard $\equiv$ isCreditCardOf$^-$
$\top \sqsubseteq\ \leq 1$ hasCreditCard$^-$ Thing
$\exists$ hasCreditCard Thing $\sqsubseteq$ Client
$\top \sqsubseteq\ \forall$ hasCreditCard CreditCard

hasLoan

IsLoanOf $\equiv$ hasLoan$^-$
$\top \sqsubseteq\ \leq 1$ hasLoan Thing
$\top \sqsubseteq\ \leq 1$ hasLoan$^-$ Thing
$\exists$ hasLoan Thing $\sqsubseteq$ Account
$\top \sqsubseteq\ \forall$ hasLoan Loan

hasLoanStatusValue

$\top \sqsubseteq\ \leq 1$ hasLoanStatusValue Thing
$\exists$ hasLoanStatusValue Thing $\sqsubseteq$ Loan
$\top \sqsubseteq\ \forall$ hasLoanStatusValue LoanStatusValue

hasOwner

hasOwner $\equiv$ isOwnerOf$^-$
$\top \sqsubseteq\ \leq 1$ hasOwner Thing
$\exists$ hasOwner Thing $\sqsubseteq$ Account
$\top \sqsubseteq\ \forall$ hasOwner Client

hasPermanentOrder

$\exists$ hasPermanentOrder Thing $\sqsubseteq$ Account
$\top \sqsubseteq\ \forall$ hasPermanentOrder PermanentOrder

hasSexValue

$\top \sqsubseteq\ \leq 1$ hasSexValue Thing
$\exists$ hasSexValue Thing $\sqsubseteq$ Client
$\top \sqsubseteq\ \forall$ hasSexValue SexValue

hasStatementIssuanceFrequency

$\top \sqsubseteq\ \leq 1$ hasStatementIssuanceFrequency Thing

∃ hasStatementIssuanceFrequency Thing ⊑ Account
⊤ ⊑ ∀ hasStatementIssuanceFrequency StatementIssuanceFrequencyValue

isCreditCardOf

hasCreditCard ≡ isCreditCardOf⁻
⊤ ⊑ ≤ 1 isCreditCardOf Thing
∃ isCreditCardOf Thing ⊑ CreditCard
⊤ ⊑ ∀ isCreditCardOf Client

isOwnerOf

hasOwner ≡ isOwnerOf⁻
⊤ ⊑ ≤ 1 isOwnerOf⁻ Thing
∃ isOwnerOf Thing ⊑ Client
⊤ ⊑ ∀ isOwnerOf Account

isPermanentOrderFor

⊤ ⊑ ≤ 1 isPermanentOrderFor Thing
∃ isPermanentOrderFor Thing ⊑ PermanentOrder
⊤ ⊑ ∀ isPermanentOrderFor Payment

isTransactionFrom

⊤ ⊑ ≤ 1 isTransactionFrom Thing
∃ isTransactionFrom Thing ⊑ Transaction
⊤ ⊑ ∀ isTransactionFrom Account

isUserOf

∃ isUserOf Thing ⊑ Client
⊤ ⊑ ∀ isUserOf Account

isWithdrawalFor

⊤ ⊑ ≤ 1 isWithdrawalFor Thing
∃ isWithdrawalFor Thing ⊑ Withdrawal
⊤ ⊑ ∀ isWithdrawalFor Payment

livesIn

⊤ ⊑ ≤ 1 livesIn Thing
∃ livesIn Thing ⊑ Client
⊤ ⊑ ∀ livesIn Region

Data properties

Individuals

Datatypes