Phase #4

Relational Schema

Customer(<u>CustomerID</u>, Name, BirthDate, Address, PhoneNumber, Email, AccountNumber, SSN, Salary, EmploymentStatus)

CreditBroker(<u>BrokerID</u>, Name, PhoneNumber, Email)

PostProcessingClerk(<u>ClerkID</u>, Name, Email, Is_Supervisor)

Manager(<u>ManagerID</u>, Name, PhoneNumber, Email)

InternalRatingApplication(<u>Rating_ID</u>, Risk_Level, Profitability_Check, AssignedManager)

Product(<u>ProductID</u>, Name, Price, InterestRate, ProductType)

LoanApplication(<u>ApplicationID</u>, LoanAmount, Status, Credit_Worthiness, CustomerID, CreditBrokerID, ClerkID, ManagerID, RatingID)

Bundle(<u>BundleID</u>, BundleName, Description, ComputedPrice, CreatedBy)

ProductsInBundles(<u>BundleID</u>, <u>ProductID</u>)

LoanContract(<u>ContractID</u>, StartDate, ExpirationDate, SignatureDate, AmountApproved, InstallmentAmount, InterestRate, RepaymentSchedule, LoanTerm, CustomerID, ManagerID, LoanApplicationID, ChosenBundle)

Customer

Customer(<u>CustomerID</u>, Name, BirthDate, Address, PhoneNumber, Email, AccountNumber, SSN, Salary, EmploymentStatus)

<u>Functional Dependencies:</u>

- CustomerID→ *All attributes*
- SSN→ *All attributes*
- AccountNumber→ *All attributes*

<u>Highest Normal Form:</u>

BCNF

Credit Broker

CreditBroker(<u>BrokerID</u>, Name, PhoneNumber, Email)

<u>Functional Dependencies:</u>

BrokerID→ *All attributes*

<u>Highest Normal Form:</u>

BCNF

PostProcessingClerk

PostProcessingClerk(<u>ClerkID</u>, Name, Email, Is_Supervisor)

<u>Functional Dependencies:</u>

ClerkID→ *All attributes*

<u>Highest Normal Form:</u>

BCNF

Manager

Manager(<u>ManagerID</u>, Name, PhoneNumber, Email)

<u>Functional Dependencies:</u>

ManagerID→ *All attributes*

Highest Normal Form:

BCNF

Internal Rating Application

InternalRatingApplication(<u>Rating_ID</u>, Risk_Level, Profitability_Check, AssignedManager)

Functional Dependencies:

BrokerID→ *All attributes*

Highest Normal Form:

BCNF

Product
Product(<u>ProductID</u>, Name, Price, InterestRate, ProductType)

Functional Dependencies:

ProductID→ *All attributes*

Highest Normal Form:

BCNF

Loan Application

LoanApplication(<u>ApplicationID</u>, LoanAmount, Status, Credit_Worthiness, CustomerID, CreditBrokerID, ClerkID, ManagerID, RatingID)

Functional Dependencies:

ApplicationID→ *All attributes*

Highest Normal Form:

BCNF

Bundle

Bundle(<u>BundleID</u>, BundleName, Description, ComputedPrice, CreatedBy)

<u>Functional Dependencies:</u>

ProductID→ *All attributes*

<u>Highest Normal Form:</u>

BCNF

Products In Bundles

ProductsInBundles(<u>BundleID</u>, <u>ProductID</u>)

<u>Functional Dependencies:</u>

(BundleID,ProductID)→ *All attributes*

<u>Highest Normal Form:</u>

BCNF

Loan Contract

LoanContract(<u>ContractID</u>, StartDate, ExpirationDate, SignatureDate, AmountApproved, InstallmentAmount, InterestRate, RepaymentSchedule, LoanTerm, CustomerID, ManagerID, LoanApplicationID, ChosenBundle)

<u>Functional Dependencies:</u>

ContractID→ *All attributes*
ApplicationID→ *All attributes*

<u>Highest Normal Form:</u>

BCNF