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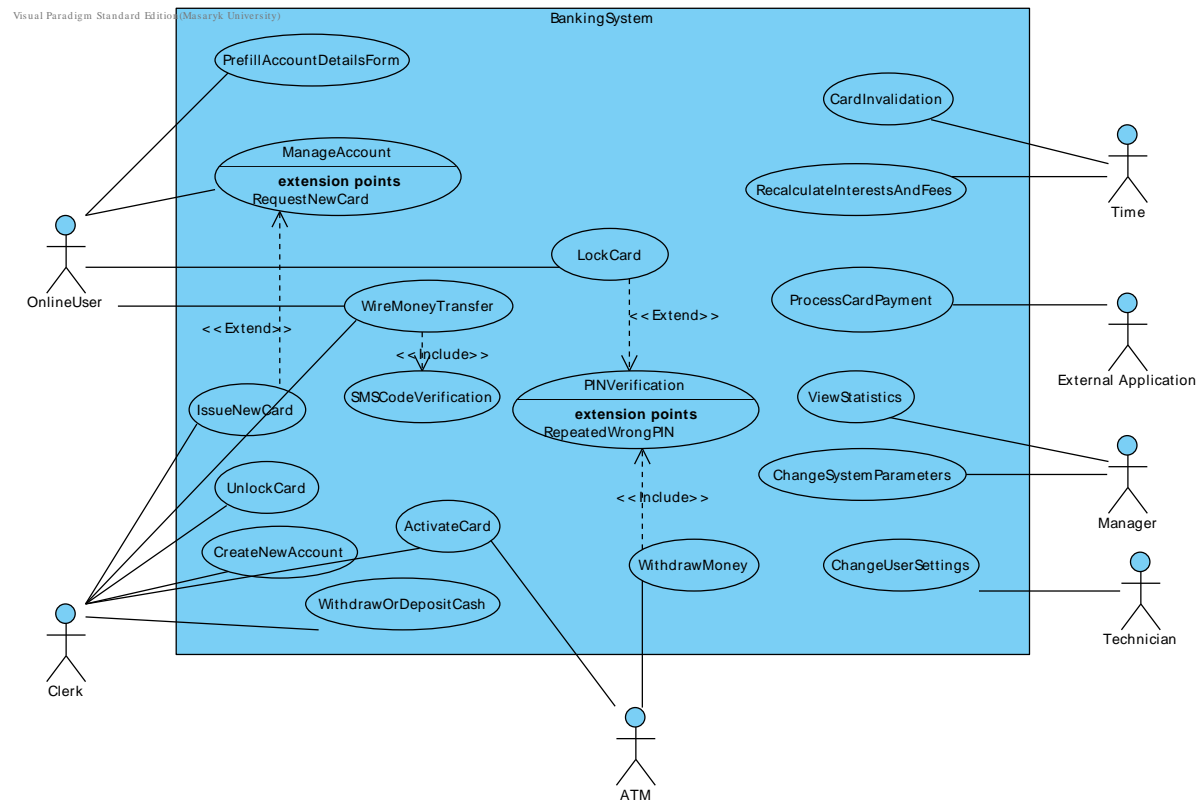
Stereotypes

UseCase		
Tagged Value Definitions	Level	
	Type	Enumeration
	Enumeration Values	Summary, User, Subfunction
	Complexity	
	Type	Enumeration
	Enumeration Values	Low, Medium, High
	Use Case Status	
	Type	Enumeration
	Enumeration Values	Name Only, Initial, Base, Complete, Deferred
	Implementation Status	
	Type	Enumeration
	Enumeration Values	Scheduled, Started, Partially Complete, Complete, Partially Deferred
	Preconditions	
	Type	Multi-line Text
	Post-conditions	
	Type	Multi-line Text
	Author	
	Type	Text
	Assumptions	
	Type	Multi-line Text

requirement		
Tagged Value Definitions	Text	
	Type	HTML
	ID	
	Type	Text
	source	
	Type	Text
	kind	
	Type	Enumeration
	Enumeration Values	Functional, Performance, Interface
	verifyMethod	
	Type	Enumeration
	Enumeration Values	Analysis, Demonstration, Inspection, Test
	risk	
	Type	Enumeration
	Enumeration Values	High, Medium, Low
	status	
	Type	Enumeration
	Enumeration Values	Proposed, Approved, Rejected, Deferred, Implemented, Mandatory, Obsolete
Include		
Extend		










Use Case Diagram

Banking System



Summary

Name	Documentation
OnlineUser	
Clerk	
ATM	
Time	
External Application	
Manager	
Technician	
UnlockCard	
LockCard	
PINVerification	
IssueNewCard	
CardInvalidation	
ActivateCard	
WithdrawMoney	
WithdrawOrDepositCash	
SMSCodeVerification	
ManageAccount	Includes transfer history and card requests

 WireMoneyTransfer	
 CreateNewAccount	
 PrefillAccountDetailsForm	
 ChangeUserSettings	
 ChangeSystemParameters	
 ViewStatistics	
 ProcessCardPayment	
 RecalculateInterestsAndFees	
 BankingSystem	

Documentation

Functional Requirements

- FR001 A clerk will be able to create an account for a customer using customer's ID.
- FR002 A customer will be able to pre-fill a registration form online and then, visiting a bank, a clerk will be able to finish the account creation using the form.
- FR003 Only when creating an account a customer will be able to choose a type of the account (current or saving account), account currency (CZK or EUR).
- FR004 A timer will be periodically (at the end of the month) computing fees and interests for the past month.
- FR005 A clerk will be able to set a money transfer after a customer's request.
- FR006 A customer can set a money transfer using a online interface (internet banking).
- FR007 Every online money transfer must be authorized by a code which will be sent to the user's cell phone via SMS
- FR008 Every transaction code is valid for 5 minutes
- FR009 Transaction is canceled if wrong code is submitted 3 times
- FR010 A client can view his/her transfer history using the internet banking.
- FR011 Card payments at shops or online will be processed by the external system.
- FR012 Money in cash can be deposited or withdrawn in person at the bank's cash desk, served by bank cashier.
- FR013 Money in cash can be withdrawn from an ATM using a card.
- FR014 Card can be delivered to a customer by post (including authorization PIN sent separately) or he/she can pick it up at the bank.
- FR015 The card can be only activated by a clerk or through an ATM.
- FR016 Card has a validity date. After the date the card will be invalidated.
- FR017 Card can be blocked by a customer through online banking.
- FR018 A clerk can unblock a card that is blocked.
- FR019 Bank managers can view system statistics.
- FR020 Bank managers can change system parameters.
- FR021 Technicians can maintain the system and change user settings.

Non-Functional Requirements

- NFR001 Every ATM has a working connection to the bank server.
- NFR002 SMS authorization code will be sent in less than 30s after request.
- NFR003 Card activation and lock/unlock has to take effect in less than a minute after request.
- NFR004 A transaction details must be available for up to 10 years after transaction.
- NFR005 There must be a redundant copy of every server and connection element.
- NFR006 In case of hardware failure, system must switch to the redundant copy in less than 30s.
- NFR007 Every bank employee is authenticated using a USB token and a password.
- NFR008 Creating a new account can take up to 24h.

- NFR009 All system preferences and user data changes has to be saved as separate revisions in case of rollback.
- NFR010 An internal money transfer has to be completed in less than a day. A money transfer to any other bank has to be completed in less than a week.

Details

 **OnlineUser**

 **Clerk**

 **ATM**

 **Time**

 **External Application**

 **Manager**

 **Technician**

 **UnlockCard**

 **LockCard**

 **PINVerification**

Extension Points

RepeatedWrongPIN

 **IssueNewCard**

 **CardInvalidation**

 **ActivateCard**

 **WithdrawMoney**

 **WithdrawOrDepositCash**

 **SMSCodeVerification**

 **ManageAccount**

Extension Points

RequestNewCard

- **WireMoneyTransfer**
- **CreateNewAccount**
- **PrefillAccountDetailsForm**
- **ChangeUserSettings**
- **ChangeSystemParameters**



















 **ViewStatistics**

 **ProcessCardPayment**

 **RecalculateInterestsAndFees**

 **BankingSystem**

Children

Name	Documentation
 RecalculateInterestsAndFees	
 ProcessCardPayment	
 ViewStatistics	
 ChangeSystemParameters	
 ChangeUserSettings	
 PrefillAccountDetailsForm	
 CreateNewAccount	
 WireMoneyTransfer	
 ManageAccount	Includes transfer history and card requests
 SMSCodeVerification	
 WithdrawOrDepositCash	
 WithdrawMoney	
 ActivateCard	
 CardInvalidation	
 IssueNewCard	
 PINVerification	
 LockCard	
 UnlockCard	