CNIT 38000 – Advanced Systems Analysis & Design

Assignment #5 – Use Case Narratives (UCN)

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Account Management Subsystem

Author (s): Group 2 **Date:** 2024-09-26

Version: 1.00

USE CASE NAME:	Submit Account Application	**USE CASE TYPE & LEVEL** **Business:** ☐ System: Requirements ☐ **Analysis** ☐ **Design** ☑
USE CASE ID:	AMS-UC001	
PRIORITY:	High	
SOURCE:	Requirements document	
PRIMARY BUSINESS ACTOR	Potential customer	
PRIMARY SYSTEM ACTOR	Bank Manager	
OTHER PARTICIPATING ACTORS:	None	
OTHER INTERESTED STAKEHOLDERS:	Banking Institution, Regulatory Authority	
DESCRIPTION:	This use case describes the process of a potential customer submitting an account application to the bank. The bank manager reviews the application for errors or omissions. If the information is correct, the system sends a request to the credit bureau for a credit report. Based on the credit report, the manager either approves or denies the account. If approved, the system generates an account number, stores the account information, and creates an account identification card. If denied, the system generates a rejection letter and sends it to the potential customer.	
PRE-CONDITION:	The potential customer has completed the application form correctly	
TRIGGER:	The potential customer submits the application to the bank manager.	

TYPICAL COURSE OF EVENTS:	Actor Action	System Response
	Step 1: The potential customer submits an account application form.	
	Step 2: The bank manager checks the application for any errors or omissions.	
	Step 3: The bank manager confirms that the application is correct and has no errors or omissions	
	Step 4: The bank manager logs into the system	**Step 6:** The system prompts the manager for new account information (name, address, DOB, phone number, SSN, etc.).
	Step 7: The bank manager enters in information for the new account (Name, Address, DOB, Phone, SSN, etc.)	**Step 8:** The system verifies the information in terms of data and format checking
		Step 9: The information is correct and the system sends a request to the credit bureau for a report and credit score
		Step 10: The system displays the report and score and prompts the bank manager to approve or deny the application
	Step 11: The bank manager reviews the report	
	Step 12: The bank manager approves the account application	**Step 13:** The system generates the account number
		Step 14: The system stores the account information and generates an account identification card

ALTERNATE COURSES:	**Alt-Step 3:** The bank manager finds errors or omissions and requests the potential customer to resolve and resubmit the application **(Go back to Step 1)**
	Alt Step 4: The bank manager is already logged into the system
	Alt-Step 9: The information is incorrect and the system prompts the manager to correct information **(Go back to Step 8)**
	Alt-Step 12: The bank manager denies the account application and notifies the potential customer that their application has been denied
	Alt-Step 13: The system stores the application as rejected
	Alt-Step 14: The system generates a letter stating the reasons to why the application was rejected
	Alt-Step 15: The letter is then sent to the potential customer
CONCLUSION:	The potential customer either receives an account or is informed of their application denial along with reasons.
POST-CONDITION:	A new bank account is created if approved; otherwise, the application is stored as rejected.
BUSINESS RULES	• Applications must be completed accurately to proceed. • Creditworthiness must be verified before account approval.
IMPLEMENTATION CONTRAINTS AND SPECIFICATIONS	• The system must comply with banking regulations for data handling.
ASSUMPTIONS:	• The bank manager has the necessary permissions to open accounts. • The potential customer has provided accurate information.
OPEN ISSUES:	• What specific criteria are used for creditworthiness evaluation?

Account Management Subsystem

Author (s): Group 2 **Date:** 2024-09-26

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USE CASE NAME:	Credit Report Request	**USE CASE TYPE & LEVEL**	
USE CASE ID:	AMS-UC001.05	**Business:** ☐	
PRIORITY:	High	System: Requirements ☐	
SOURCE:	Requirements document	**Analysis** ☐	
		Design ☑	
PRIMARY BUSINESS ACTOR	Bank System		
PRIMARY SYSTEM ACTOR	Credit Bureau		
OTHER PARTICIPATING ACTORS:	None		
OTHER INTERESTED STAKEHOLDERS:	Banking Institutions, Potential Customers		
DESCRIPTION:	This use case describes the process through which the credit bureau receives a request for a credit report from a bank and returns the necessary credit information for the bank manager to determine the creditworthiness of the potential customer before accepting or denying the account application.		
PRE-CONDITION:	A request for a credit report has been made by the bank system.		
TRIGGER:	The bank manager submits a request for a credit report based on the potential customer's application.		
TYPICAL COURSE	Actor Action	System Response	

OF EVENTS:	**Step 1:** The bank system sends a request for a credit report to the credit bureau	**Step 2:** The credit bureau processes the request using the given information **(Name, Address, DOB, Phone, SSN, etc.)**
		Step 3: The credit bureau retrieves the credit report and credit score
		Step 4: The credit bureau sends the credit report and credit score back to the bank system
	Step 5: The bank system displays the credit report information to the bank manager	
ALTERNATE COURSES:	**Alt-Step 3:** If the provided information is insufficient to retrieve a report, the credit bureau request additional information from the bank. **(Go back to Step 2)**	
CONCLUSION:	The bank manager receives the credit report necessary for the application process.	
POST-CONDITION:	The credit report is successfully delivered to the bank's system for evaluation.	
BUSINESS RULES	• Credit reports must be delivered securely and within a defined timeframe. • Only authorized requests from financial institutions are processed.	
IMPLEMENTATION CONTRAINTS AND SPECIFICATIONS	• Compliance with privacy laws regarding the handling of sensitive information.	
ASSUMPTIONS:	• The credit bureau maintains accurate and up-to-date credit information.	
OPEN ISSUES:	• How are credit freezes handled?	

Bank System

Author (s): Group 2 **Date:** 2024-09-26

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USE CASE NAME:	Generate Previous Day Deposit and Withdrawal Report	**USE CASE TYPE & LEVEL**	
USE CASE ID:	BS-UC005.00	**Business:** ☐	
PRIORITY:	High	System: Requirements ☐	
SOURCE:	Requirements document	**Analysis** ☐	
		Design ☑	
PRIMARY BUSINESS ACTOR	Bank Manager		
PRIMARY SYSTEM ACTOR	Bank System		
OTHER PARTICIPATING ACTORS:	None		
OTHER INTERESTED STAKEHOLDERS:	Banking Institution		
DESCRIPTION:	This use case describes the process by which the system generates a report detailing deposits and withdrawals from customer accounts for a specified previous day.		
PRE-CONDITION:	The system is configured to track all deposits and withdrawals and the bank manager is logged into the system with proper permissions.		
TRIGGER:	The bank manager requests a daily report of deposits and withdrawals for the previous business day.		
TYPICAL COURSE	Actor Action	System Response	

OF EVENTS:	**Step 1:** The bank manager logs into the bank system.	
	Step 2: The bank manager selects the option to generate the previous day's deposit and withdrawal report.	**Step 3:** The system processes the request and retrieves deposit and withdrawal data for the specified day from the database.
		Step 4: The system generates the report, listing detailed transactions (account number, type of transaction, amount, time, etc.).
		Step 5: The system displays the report to the bank manager for review
	Step 6: Bank manager reviews report	
ALTERNATE COURSES:	**Alt-Step 5:** If there is an issue generating the report, the system displays an error message	
CONCLUSION:	The bank manager successfully generates and reviews a daily report of deposits and withdrawals.	
POST-CONDITION:	The report is available for printing or downloading, and the system logs the generation event.	
BUSINESS RULES	• Reports must be accurate and generated for completed business days only. • Only authorized users can generate transaction reports.	
IMPLEMENTATION CONTRAINTS AND SPECIFICATIONS	• The system must handle large amounts of transaction data efficiently.	
ASSUMPTIONS:	• The system has access to up-to-date transaction data. • The bank manager has the necessary permissions to request reports.	
OPEN ISSUES:	• How long should reports remain accessible in the system?	

Bank System

Author (s): Group 2 **Date:** 2024-09-26

Version: 1.00

USE CASE NAME:	Generate Previous Day Account Activity Report	**USE CASE TYPE & LEVEL** **Business:** ☐ System: Requirements ☐ **Analysis** ☐ **Design** ☑
USE CASE ID:	BS-UC005.05	
PRIORITY:	High	
SOURCE:	Requirements document	
PRIMARY BUSINESS ACTOR	Bank Manager	
PRIMARY SYSTEM ACTOR	Bank System	
OTHER PARTICIPATING ACTORS:	None	
OTHER INTERESTED STAKEHOLDERS:	Banking Institution	
DESCRIPTION:	This use case describes the process by which the system generates a report summarizing account activity for all customer accounts for the previous business day.	
PRE-CONDITION:	The system has recorded all transactions (deposits, withdrawals, account transfers, etc.) for the previous day, and the bank manager is logged into the system.	
TRIGGER:	The bank manager requests a daily account activity report for the previous business day.	
TYPICAL COURSE	Actor Action	System Response

OF EVENTS:	**Step 1:** The bank manager logs into the bank system.	
	Step 2: The bank manager selects the option to generate the previous day's account activity report.	**Step 3:** The system processes the request, retrieving account activity data (deposits, withdrawals, transfers, fees, etc.) for all customer accounts.
		Step 4: The system compiles the account activity data into a report, organized by account number and type of transaction.
		Step 5: The system displays the report for review
	Step 6: Bank manager reviews report	
ALTERNATE COURSES:	**Alt-Step 5:** If there is an issue generating the report, the system displays an error message.	
CONCLUSION:	The bank manager successfully generates and reviews a report summarizing account activity for the previous day.	
POST-CONDITION:	The report is available for printing or downloading, and the system logs the generation event.	
BUSINESS RULES	• Reports must accurately reflect all account activity for the specified business day. • Only authorized users can generate account activity reports.	

IMPLEMENTATION CONTRAINTS AND SPECIFICATIONS	• The system must handle large datasets efficiently and produce reports within a reasonable timeframe.
ASSUMPTIONS:	• The system has access to accurate and up-to-date transaction data. • The bank manager has the necessary permissions to generate reports.
OPEN ISSUES:	• How long should reports remain accessible in the system?

Checking Account Subsystem

Author (s): **Group 2** **Date:** **2024-09-26**

Version: **1.00**

USE CASE NAME:	Checking Account Actions	**USE CASE TYPE & LEVEL** **Business:** ☐ System: Requirements ☐ **Analysis** ☐ **Design** ☑
USE CASE ID:	CAS-UC001.00	
PRIORITY:	High	
SOURCE:	Requirements document	
PRIMARY BUSINESS ACTOR	Customer with Checking Account	
PRIMARY SYSTEM ACTOR	Bank System	
OTHER PARTICIPATING ACTORS:	Teller (optional for in-branch transactions)	

OTHER INTERESTED STAKEHOLDERS:	Banking Institution	
DESCRIPTION:	This use case describes the various actions a customer with a checking account can perform, including checking account inquiries, fund deposits, withdrawals, fund transfers, statement requests, and check deposits.	
PRE-CONDITION:	The customer must have an active checking account, and the bank system must be operational and connected to the database.	
TRIGGER:	The customer initiates an inquiry or transaction related to their checking account.	
TYPICAL COURSE OF EVENTS:	Actor Action	System Response
	Step 1: The customer logs into their online banking portal	**Step 2:** The system displays actions that can be performed in the checking account
	Step 3A: The customer selects "Account Inquiry" from the available options.	**Step 4A**: The system displays the account information to the customer.
	Step 3B: The customer selects “Fund Deposit” from the available options specifies the amount and source of funds.	**Step 4B:** The system confirms the deposit and updates transaction history
	Step 3C: The customer selects "Fund Withdrawal" and specifies the amount to withdraw.	**Step 4C**: The system verifies the withdrawal request and ensures

		sufficient funds are available.
	Step 3D: The customer selects "Fund Transfer" and specifies the recipient account and amount to transfer.	**Step 4D**: The system verifies the recipient account, checks available funds, and processes the transfer.
	Step 3E: The customer selects "Statement Request" for a specific date range.	**Step 4E**: The system retrieves the transaction history for the requested period and generates a statement.
	Step 3F: The customer selects "Check Deposit" and submits a photo of the check	**Step 4F**: The system verifies the check information and processes the deposit and then confirms the deposit and updates the account balance
ALTERNATE COURSES:	**Alt-Step 4**: If any issues arise (e.g., insufficient funds, incorrect account information), the system notifies the customer of the error and prompts for correction.	
CONCLUSION:	The customer successfully completes the selected checking account action.	
POST-CONDITION:	The checking account balance and transaction history are updated based on the performed action.	
BUSINESS RULES	• Deposits and withdrawals are subject to bank policies and limits. • Fund transfers must verify the recipient account before processing.	
IMPLEMENTATION CONTRAINTS	• The system must ensure data accuracy and handle multiple transactions simultaneously.	

AND SPECIFICATIONS	
ASSUMPTIONS:	• The customer's account is active and the system has access to up-to-date information.
OPEN ISSUES:	• How will the system handle transactions during system downtimes?

Savings Account Subsystem

Author (s): **Group 2** **Date:** **2024-09-26**

Version: **1.00**

USE CASE NAME:	Savings Account Actions	**USE CASE TYPE & LEVEL**
USE CASE ID:	SAS-UC001.00	**Business:** ☐
PRIORITY:	High	System: Requirements ☐
SOURCE:	Requirements document	**Analysis** ☐
		Design ☑
PRIMARY BUSINESS ACTOR	Customer with Savings Account	
PRIMARY SYSTEM ACTOR	Bank System	
OTHER PARTICIPATING ACTORS:	Teller (optional for in-branch transactions)	
OTHER INTERESTED STAKEHOLDERS:	Banking Institution	

DESCRIPTION:	This use case describes the various actions a customer with a savings account can perform, including savings account inquiries, fund deposits, withdrawals, fund transfers, statement requests, and check deposits.	
PRE-CONDITION:	The customer must have an active savings account, and the bank system must be operational and connected to the database.	
TRIGGER:	The customer initiates an inquiry or transaction related to their savings account.	
TYPICAL COURSE OF EVENTS:	Actor Action	System Response
	Step 1: The customer logs into their online banking portal	**Step 2:** The system displays actions that can be performed in the savings account
	Step 3A: The customer selects "Account Inquiry" from the available options.	**Step 4A**: The system displays the account information to the customer.
	Step 3B: The customer selects “Fund Deposit” from the available options specifies the amount and source of funds.	**Step 4B:** The system confirms the deposit and updates transaction history
	Step 3C: The customer selects "Fund Withdrawal" and specifies the amount to withdraw.	**Step 4C**: The system verifies the withdrawal request and ensures sufficient funds are available.
	Step 3D: The customer selects "Fund Transfer" and specifies the recipient account and amount to transfer.	**Step 4D**: The system verifies the recipient account, checks available funds, and processes the transfer.
	Step 3E: The customer selects "Statement Request" for a specific date range.	**Step 4E**: The system retrieves the transaction history for the requested period and generates a statement.
	Step 3F: The customer selects "Check Deposit" and submits a photo of the check	**Step 4F**: The system verifies the check information and processes the deposit and then confirms the deposit and updates the account balance
ALTERNATE COURSES:	**Alt-Step 4**: If any issues arise (e.g., insufficient funds, incorrect account information), the system notifies the customer of the error and prompts for correction.	
CONCLUSION:	The customer successfully completes the selected savings account action.	

POST-CONDITION:	The savings account balance and transaction history are updated based on the performed action.
BUSINESS RULES	• Deposits and withdrawals are subject to bank policies and limits. • Fund transfers must verify the recipient account before processing.
IMPLEMENTATION CONTRAINTS AND SPECIFICATIONS	• The system must ensure data accuracy and handle multiple transactions simultaneously.
ASSUMPTIONS:	• The customer's account is active and the system has access to up-to-date information.
OPEN ISSUES:	• How will the system handle transactions during system downtimes?