

Automated Teller Machine (ATM)

Specification

Date: 2025.05.17T13:58:08Z+0000

Project-ID: 2e5b82ff-f742-4949-afad-ba428b7e0fcc



Table of Contents

Personas

1: Misc

- Account Holder (Visually Impaired)
- Alien Customer
- Manager of Local Branch
- Operations Manager
- Account Holder

User Stories

1: Misc

- Account Holder Wants to Know the Balance of the Account
- Check Status of ATM
- Customer Withdraws Cash
- Check Amount of Cash in Stock at ATM

BDD Scenarios

1: Misc

- Account Has Sufficient Funds
- Account Has Insufficient Funds
- Cash Withdrawal with Daily and Monthly Limits Not Exceeded
- Cash Withdrawal Exceeding Daily or Monthly Limits
- Show Balance of Account(s)
- Customer Uses Invalid Card
- Get Amount of Money Currently Stored in ATM
- Get List of ATMs
- Get Status Overview of the ATMs

Personas

1: Misc Category

Account Holder (Visually Impaired) Persona: PSA-005

Victor Mendes, 53

Married to Joanna.

In an accident, when he was 7, Victor lost his eye sight for about 95%. Since then he can only see coloured areas and distinguish between bright and dark.

Victor is working as an accountant for one of the major employers in town.

One of the reasons for being a customer of "ABC Bank Ltd." is that there is an ATM just around the corner of his workplace.

Luckily there is a bus stop just opposite of his work and another one a few steps from their flat. This enables Victor to commute without any further assistance.

Alien Customer Persona

Liam Taylor, 54

Liam is sales representative and drives a lot across the south-west of the country.

Usually when pulling in for gas he uses an ATM at the gas station to get some cash.

Manager of Local Branch Persona

Adam Smith, 57

Married, father to a daughter of 19, owns a golden retriever named Jessie.

Manages the local branch of ABC Bank Ltd. and is responsible for 5 ATMs within the borders of the town. So he is responsible that there is always enough cash stored in the ATMs. The cash is provided with strongboxes into the ATM by his security staff.

Operations Manager Persona

Olivia Williams, 37

Olivia started working for ABC Bank Ltd. as a maintenance executive. After two years she was promoted operations manager responsible for all 107 ATMs of ABC Bank being installed and maintained in a save and solid manner.

This includes among other tasks planning the shifts of the maintenance executives, coordinating software releases, procurement of replacement parts and new ATMs.

For Olivia it is important to quickly get an overview about the status of "her babies" - as she calls the ATMs - and to be notified in timely manner or even up-front about irregularities.

Account Holder Persona

Emma Jones, 42

Married, two children of age 9 and 11.

Works part time as a teacher at an elementary school at the capital of the district.

Since 2003 she is a loyal customer of "ABC Bank Ltd." and has two savings accounts plus - together with her husband Mark - a mortgage at this bank.

Besides the online banking to pay the bills, Emma regularly collects some money at the ATM outside the local branch of ABC Bank between dropping off her younger daughter at school and picking up the older one from dance lessons.

User Stories

1: Misc Category

Account Holder Wants to Know the Balance of the Account User Story

As a / an

account holder or visually impaired account holder

I want to

know the actual balance of my account

so that

I can plan my further spendings in a better way.

Check Status of ATM User Story

As a / an

operations manager

I want to

know the status of the ATMs

so that

I can plan the shifts of my staff accordingly.

Customer Withdraws Cash User Story

As a / an account holder or alien customer

I want to

withdraw cash from an ATM

so that

I can get money even when the bank is closed.

Check Amount of Cash in Stock at ATM User Story

As a / an

manager of local branch

I want to

check the amount of money that is in stock at the ATMs I am responsible for

so that

I can make sure there is always enough cash disposable.

BDD Scenarios

1: Misc Category

Account Has Sufficient Funds BDD Scenario

Given

- I have an account with ABC Bank
- the card is valid
- the balance of my account is high enough
- I have not exceeded the daily or monthly limit/remainder yet
- the ATM contains enough money

when

I request a certain amount of money

then

- the balance of my account is reduced by the amount
- the remainders of the daily and monthly limits are reduced accordingly
- the card is returned
and finally cash is dispensed.

Account Has Insufficient Funds BDD Scenario

Given

- I have an account with ABC Bank
- the card is valid
- I have not exceeded the daily or monthly limit/remainder yet
- the ATM contains enough money
but the balance of my account is not high enough

when

I request a certain amount of money

then

the ATM should say there are insufficient funds and the card should be returned.

Cash Withdrawal with Daily and Monthly Limits Not Exceeded BDD Scenario

Given

- I have not an account with ABC Bank
- the card is valid
- I have not exceeded the daily or monthly limit/remainder yet
- the ATM contains enough money

when

I request a certain amount of money

then

- the issuer of the card will be notified about the withdrawal (cust-ID, amount, time-stamp)
 - the remainders of the daily and monthly limits are reduced accordingly
 - the card is returned
- and finally cash is dispensed.

Cash Withdrawal Exceeding Daily or Monthly Limits BDD Scenario

Given

- I have not an account with ABC Bank
 - the card is valid
 - the ATM contains enough money
- but I have exceeded the daily or monthly limit/remainder

when

I request a certain amount of money

then

the ATM should say that the daily or monthly limit has been exceeded and the card should be returned.

Show Balance of Account(s) BDD Scenario

Given

- I have one or more accounts with ABC Bank
- the card is valid

when

I press the button to show the balance of my account(s)

then

for each account the balances are listed together with the remaining monthly limits for cash withdrawal.

Customer Uses Invalid Card BDD Scenario

Given

I have a card that is no longer valid

when

I insert this card into an ATM

then

- the ATM should tell me that the card is invalid
- the issuer of the card will be notified about the usage (cust-ID, time-stamp)
- the ATM should retain the card to be sent back to the issuer and the ATM should return to initial state.

Get Amount of Money Currently Stored in ATM BDD Scenario

Given

I am logged in with the interface to manage ATMs

when

I select an ATM that is shown to me

then

the amount of money currently disposable at this ATM is shown together with other key indicators like 'health status', 'transactions today', 'amount disposed today' etc.

Get List of ATMs BDD Scenario

Given

I have the necessary access rights

when

I log into the interface to manage ATMs with my credentials

then

I get a list of all ATMs I am configured to get access.

Get Status Overview of the ATMs BDD Scenario

Given

I am logged in with the interface to manage ATMs

when

the dashboard is loaded

then

the overview of the ATMs shows the number of ATMs that are currently online or offline.

If there are any ATMs in a critical state, then additionally the most important indicators are listed for them i.e. temperatur, status of case, number of transactions today, time since last transaction, errors, and the remaining amount of cash.