

## Story 1: ATM displays welcome message

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1

As a Customer

I want to see whether the ATM is ready for a transaction  
So that I won't waste time trying to use a machine that is  
not ready

*front*

## Scenario 1: Happy path

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2

Given that the ATM has finished its previous operation  
When the ATM is ready to accept input from a customer  
Then the six-line display reads:

- [1] Welcome to Banco Fantastico
- [2] (blank)
- [3] Insert card to begin
- [4] (blank)
- [5] (blank)
- [6] (blank)

*back*

## Scenario 1: Out of service

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2

Given that the ATM has a fault or cannot connect to the back-end system

When the ATM determines it cannot recover from the problem

Then the six-line display reads:

[1] Banco Fantastico

[2] (blank)

[3] Out of service

[4] (blank)

[5] We apologize for any inconvenience

[6] (blank)

*back*

## Story 2: Cash withdrawal

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2

As a Customer,  
I want to withdraw cash from the ATM  
So that I don't have to stand in line at the bank.

*front*

## Scenario 1: Happy path

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2

Given the card is valid  
And account contains \$2,500  
And dispenser contains \$250  
When customer requests \$250  
Then \$250 cash is dispensed  
And account is debited \$250  
And the transaction is logged  
And the ATM prompts for another transaction

*back*

## Scenario 2: Happy path

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2

Given the card is valid  
And account contains \$200  
And dispenser contains \$25,000  
When customer requests \$200  
Then \$200 cash is dispensed  
And account is debited \$200  
And the transaction is logged  
And the ATM prompts for another transaction

*back*

### Scenario 3: Dispenser low on cash

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2

Given the card is valid

And account contains \$2,500

And dispenser contains \$240

When customer requests \$250

Then "Insufficient cash available" message is displayed

And the transaction is logged

And the ATM displays the Out of Service message after 25 seconds

*back*

## Scenario 4: Insufficient funds

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2

Given the card is valid

And account contains \$240

And dispenser contains \$250

When customer requests \$250

Then "Insufficient funds in account" message is displayed

And the ATM prompts for another transaction after 25 seconds

*back*



### Story 3: Card validation

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3

As the Bank

I want to detect invalid cards

So that I won't lose money due to fraudulent transactions

*front*

## Scenario 1: Invalid card

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3

Given the card is invalid

When the customer inserts the card

Then the card information is logged

And the "Invalid card" message is displayed

And the card is returned

*back*

## Scenario 2: Valid card

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3

Given the card is valid

When the customer inserts the card

Then the card is validated successfully

And the ATM prompts for a transaction

*back*

## Story 4: Balance inquiry

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4

As a Customer

I want to check my account balance at the ATM

So that I don't have to wait for monthly statements

*front*

## Scenario 1: Happy path

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4

Given the card is valid

And the ATM can access the account system

And the account contains \$2,500

When the customer makes a balance inquiry

The ATM displays "\$2,500"

And prompts for another transaction

*back*

## Scenario 2: System unavailable

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4

Given the card is valid

And the ATM cannot access the account system

The ATM displays "System is unavailable" message

And the card is returned

*back*

## Story 5: Customer receipt

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5

As a Customer

I may want a receipt

So that I will have a record of the business I transacted  
at the ATM

*front*

## Scenario 1: Prompt for receipt

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5

Given the ATM printer is ready  
And the ATM prompts the customer for a transaction  
When the customer selects "No"  
Then the ATM displays "Do you want a receipt?"

*back*



## Scenario 2: Printer not ready

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5

Given the ATM printer is not ready  
And the ATM prompts the customer for a transaction  
When the customer selects "No"  
Then the ATM displays "Out of paper - cannot print receipt"  
And the card is returned

*back*

### Scenario 3: Customer declines receipt

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5

Given the ATM printer is ready  
And the ATM prompts the customer for a transaction  
When the customer selects "No"  
Then the ATM displays "Thank you"  
And the card is returned

*back*

## Scenario 4: Customer requests receipt

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5

Given the ATM printer is ready  
And the ATM prompts the customer for a transaction  
When the customer selects "Yes"  
Then the ATM prints the receipt  
And the card is returned

*back*

## Story 6: ATM service call

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6

As the Bank

I want the ATM to be highly available

So that I can provide uninterrupted service to customers

*front*

## Scenario 1: Low cash

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6

Given the ATM dispenser refill level is \$400

And the ATM dispenser contains \$410

When a customer withdraws \$20

Then the ATM signals the back-end that the ATM needs a refill

*back*

## Scenario 2: Printer low on paper or ink

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6

Given the ATM printer is ready

When the ATM prints a receipt that reduces paper or ink below the refill level

Then the ATM marks the printer as "not ready"

And the ATM signals the back-end that the ATM needs printer service

*back*

### Scenario 3: Printer jam

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6

Given the ATM printer is ready

When the ATM prints a receipt

And the printer jams while attempting to print the receipt

Then the ATM marks the printer as "not ready"

And the ATM signals the back-end that the ATM needs printer service

*back*

## Scenario 4: Hardware fault

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6

Given the ATM detects a hardware fault

Then the ATM signals the back-end that the ATM needs technical service

*back*



## Scenario 5: Software crashes or locks up

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6

Given that the ATM software crashes or locks up  
When the watchdog timer detects the problem  
Then the watchdog timer triggers a reboot

*back*

## Scenario 6: Repeated software crashes or lock-ups

6

Given that the ATM software crashes or locks up 3 times within a 24-hour period

Then the ATM signals the back-end that the ATM needs technical service

*back*

## Story 7: Overdraft protection

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7

As a Customer

I want overdraft protection

So that I won't be penalized when I inadvertently  
withdraw more money than is present in my account at the  
moment

*front*

## Scenario 1: Overdrawn within limit

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7

Given that the card is valid  
And the account contains \$300  
And the overdraft limit is \$500  
And the dispenser contains \$10,000  
When the customer withdraws \$600  
Then \$600 cash is dispensed  
And account is debited \$250  
And the ATM prompts for another transaction

*back*

## Scenario 2: Overdrawn beyond limit

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7

Given that the card is valid

And the account contains \$50

And the overdraft limit is \$500

And the dispenser contains \$10,000

When the customer withdraws \$600

Then "Insufficient funds in account" message is displayed

And the ATM prompts for another transaction

*back*

### Scenario 3: Overdrawn exactly at the limit

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7

Given that the card is valid  
And the account contains \$100  
And the overdraft limit is \$500  
And the dispenser contains \$10,000  
When the customer withdraws \$600  
Then \$600 cash is dispensed  
And account is debited \$250  
And the ATM prompts for another transaction

*back*

## Story 8: Retry mode operation

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8

As the Bank

I want the ATM to try and stay connected with the back-end automatically

So that reconnection issues may be resolved without human intervention

*front*

## Scenario 1: Reconnection attempt fails

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8

Given that the ATM is in "retry" mode

And 60 seconds have elapsed since entering "retry" mode or since the last reconnection attempt

And the back-end system is unavailable

When the ATM attempts to reconnect

Then the ATM resets the reconnection timer to 60 seconds

*back*



## Scenario 2: Reconnection attempt succeeds

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8

Given that the ATM is in "retry" mode

And 60 seconds have elapsed since entering "retry" mode or since the last reconnection attempt

And the back-end system is available

When the ATM attempts to reconnect

Then the connection with the back-end is established

And the ATM is placed into "normal" mode

*back*