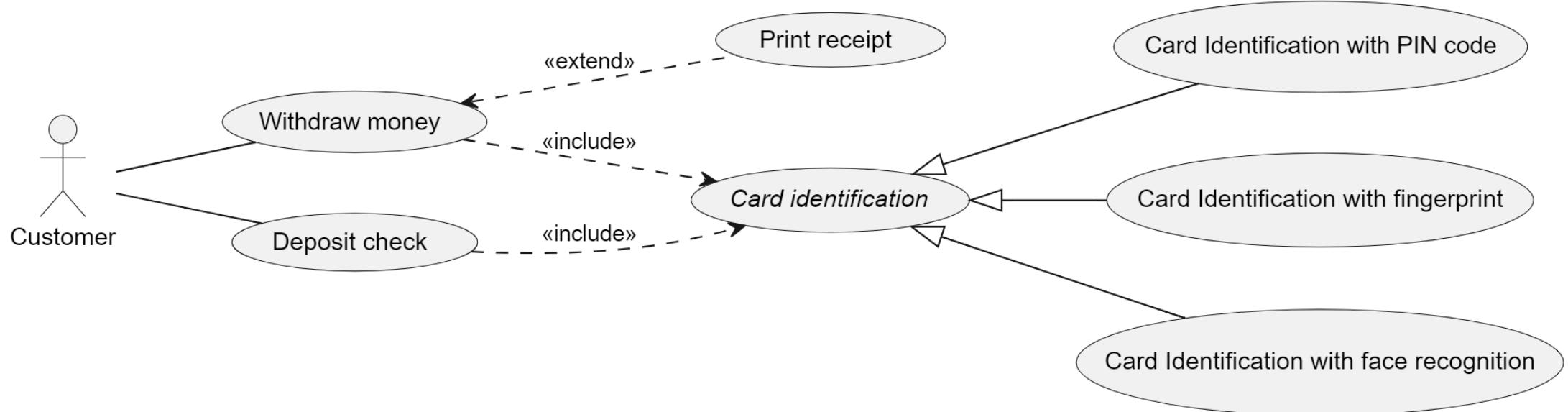


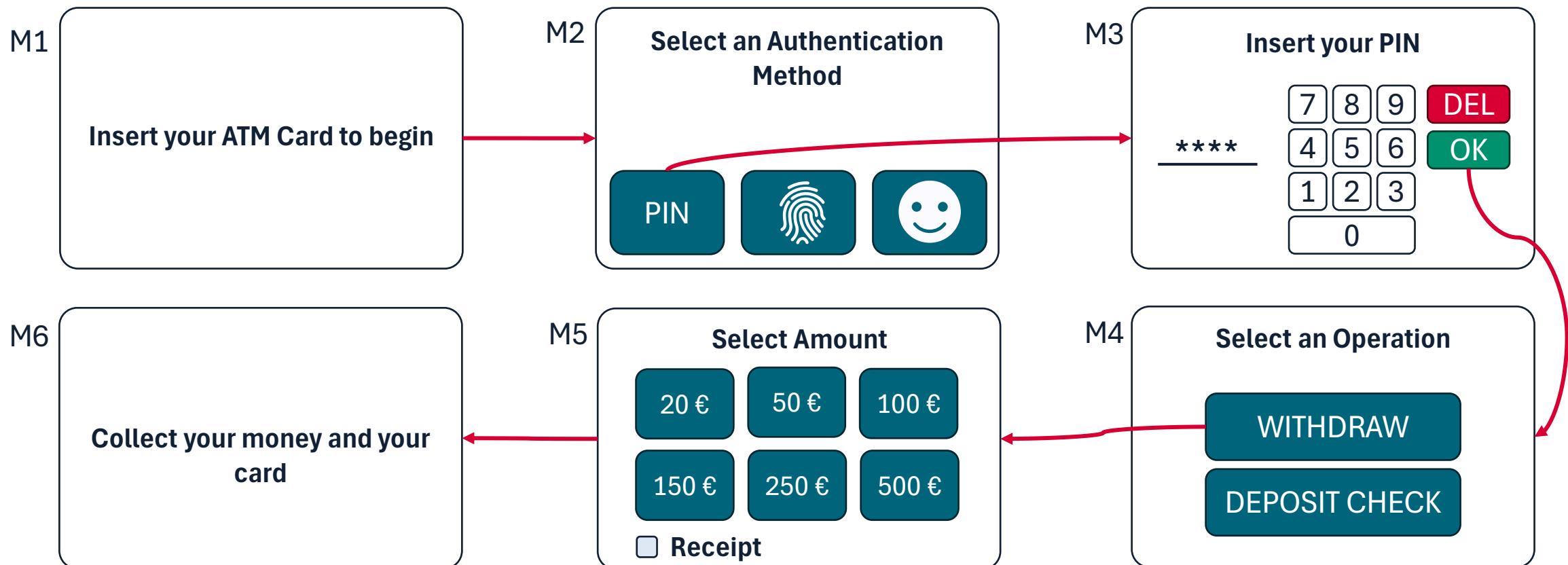
Example: ATM System



- Suppose we want to describe the **Withdraw money** use case, using a fully-dressed format

Example: Mockups

- It may be useful to design some mockups of the system



Example: Fully-dressed Use Case

USE CASE #1	Withdraw money		
Goal in Context	A customer wants to withdraw money from the ATM		
Preconditions	The customer has an account at the Bank and owns a bank card		
Success End Condition	The system keeps track of the withdrawal operation and erogates the requested money		
Failed End Condition	No transaction is made		
Primary Actor	Customer		
Trigger	Customer walks up to the system and touches the screen to activate it		
Main Scenario	Step n.	Customer	System
	1	Touches screen	
	2		Shows M1
	3	Inserts card	
	4		Shows M2

Example: Fully-dressed Use Case

USE CASE #1	Withdraw money		
Main Scenario	Step n.	Customer	System
	5	Touches «PIN» button	
	6		Shows M3
	7	Inserts PIN	
	8		Shows M4
	9	Touches «Withdraw» button	
	10		Shows M5
	11	Touches «50 €» button	
	12		Erogates money, Ejects card, Shows M6

Example: Extensions

- What can go wrong?
 - PIN might not be correct
 - Customer might not have enough money in their account
 - ATM might not have enough cash reserves to erogate the required money
 - Card might be flagged as stolen
 - Card might be unreadable
 - ...
- What could go differently?
 - Customers might authenticate themselves using their fingerprint or face recognition
 - Customers might opt-in to get the printed receipt

Example: Extensions

- Each of these scenarios should be detailed using extensions

Extension #1 (customer inserts an invalid PIN)	Step	Customer	System
	7a <wrong PIN is inserted>	Inserts PIN	
	8a		Shows M7 and terminates UC

M7

**Invalid PIN – Authentication
denied.
Recover your card from the
tray.**

Example: Extensions

Extension #2 (customer does not have enough money)	Step	Customer	System
	11b	Selects «500€» button	
	12b		Shows M8
	13b	Clicks ok	
	14b		Return to step 10 of the Main Scenario

M8

Your balance is smaller than the amount you are trying to withdraw. Select a smaller amount.

OK