

Personal task in second week:

Use case model

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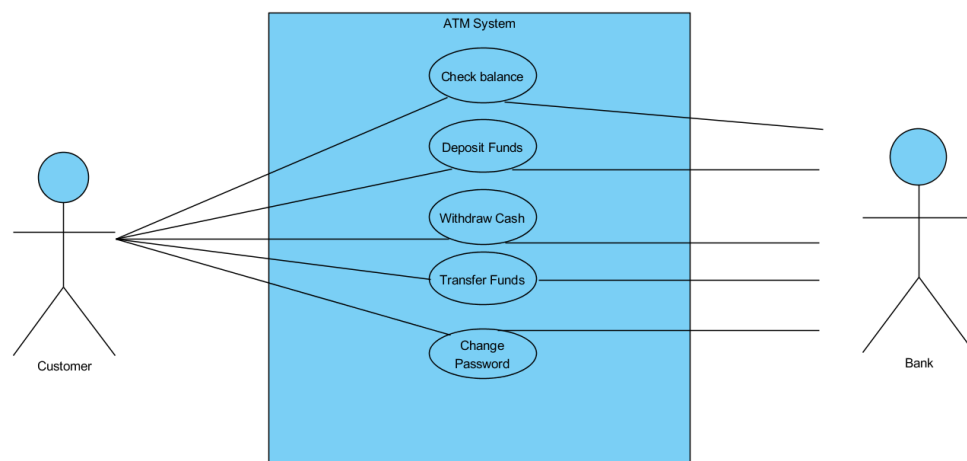
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GitHub Repository: <https://github.com/OOPClassTeamMing/OOPClassRepository.git>

Date: 2017/11/27

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1. ATM System Use Case Diagram



Use case include:

- (1) Check balance: Customer can check balance in ATM machine with his/her credit card.
- (2) Deposit Funds: Customer deposit funds to ATM machine with his/her credit card.
- (3) Withdraw Cash: Customer withdraw cash from ATM machine with his/her credit card.
- (4) Transfer Funds: Customer transfer funds by ATM machine with his/her credit card.
- (5) Change Password: Customer change password in ATM machine with his/her credit card.

2. System use case specification: Withdraw Cash

Use case name	Withdraw Cash
Description	Customer withdraw cash from ATM machine with his/her credit card.
Actor	Customer,bank
Precondition	None
Basic flow	<ol style="list-style-type: none"> 1. Customer insert credit card into ATM machine 2. ATM machine read the card number and the sign to check the Effectiveness of the card 3. Customer input password 4. ATM machine check the account and the password 5. ATM machine show the service function,customer select "Withdraw Cash" 6. Input the number of money he want withdraw(the number should be the multiple of 100) 7. ATM notify the bank host of the card number, password, account number and withdrawal amount, obtain the latest balance of withdrawals successful confirmation information. 8. ATM printing and spit slip. 9. ATM count and spit out cash, record successful withdrawal. 10. ATM ask customers whether to continue service. 11. the customer chooses no, ATM spits out the bank card, ends the use case, otherwise returns to step 5.(use case finish)
Alternative Flow	<p>3-7, 10a. customer cancels service: ATM record service cancellation, print the receipt, spit slip and bank card, [use case failed]</p> <p>3,6,11a. customers did not input more than 30 seconds: ATM swallow card, [use case failed]</p> <p>2a. Invalid card: ATM swallow card, [use case failed]</p> <p>2b. reader or card is damaged: ATM swallow card, [use case failed]</p> <p>4a. password error: <ol style="list-style-type: none"> 4a1. The client re entered the password <ol style="list-style-type: none"> a. cumulative password error 3 times: ATM swallow card, [use case failed] 4b. does not have this account: ATM swallow card, [use case failed] </p> <p>5a. ATM cashless: ATM does not show "withdrawals", and clients can</p>

	<p>choose other services, [use cases failed]</p> <p>6a. amount is over ATM cash balance: ATM requires the customer to re-enter the amount of withdrawal.</p> <p>7a. account insufficient balance: ATM requires the customer to re-enter the amount of withdrawal.</p> <p>7b. amount exceeds the maximum limit on the same day: ATM requires the customer to re-enter the amount of withdrawal.</p> <p>7c.network or banking host failure, communication timeout: ATM record service cancellation, print the receipt, spit slip and bank card, [use case failed]</p> <p>8a. failed to print receipt, run out of paper or cardboard: 8a1. ATM tells the bank host to cancel withdrawals 8a2. ATM record service cancelled, spit out bank card, [use case failed]</p> <p>9A. spits cash failure: 9a1. ATM tells the bank host to cancel withdrawals 9a2. ATM record service cancelled, spit out bank card, [use case failed]</p> <p>11a. customers did not take the card in time: ATM swallow card, [use case failed]</p>
Extension point	[pending]
Non-functional requirements	ATM responds to customer time no more than 15 seconds
Business rules	<p>7b withdrawals in a single day shall not exceed 5000 yuan</p> <p>6c cannot withdraw more than 2000 yuan each time</p>