

Problem: We need a system that can handle deposits, withdrawals, and balance inquiries as well. This system is meant to help ensure that customers can withdraw any amount they would like as long as they have that amount in their account. They should be able to deposit whatever amount they would like and also be able to ask anytime about the amount of money they have in their account.

Algorithm:

- In the class:

Step 1: we will first create a bank class that has a String name variable and a static double balance variable

Step 2: we will make these variables private so that the user can not edit them (only when they withdraw and deposit from the account)

Step 3: We will then create a getBalance method that asks for the account as a parameter and then retrieves the balance for that account and the amount of money that is in it and we will have it printed.

Step 4: We will then create a depositMoney method that asks the user for the account and the amount that they would wish to deposit into the account. It will add the amount to the value balance and print "Deposit successful"

Step 5: We will then create a withdrawMoney method that asks the user in the parameters to input what account they would like to withdraw from and the amount of money that they would like to withdraw. This method first checks the account using the getBalance method to see how much money is in the account. It then compares the amount to the value retrieved from the getBalance method to see if the user has enough money to make the withdrawal. If the user does not have enough money then a message that says "Sorry, but you have insufficient funds to withdraw this amount". But if they do have the amount, then the method will print "Withdrawal has been made"

Step 6: We will then create a create account method that allows the user to make an account and add a name as a parameter but then have a preset balance of 0 dollars

Step 7: We will create an array to store all the accounts which will have a maximum of 5

Step 7: We will then import Scanner and create a new Scanner that will receive the responses of the person

-Main Method:

Step 7: We will ask the user for the name of the account that they would like to create

Step 8: We will then use that data to create an account for the person and then add it to an array of accounts(the array will be in the bank class but will have a limit of 5 accounts which we will say in the text after the person makes an account)

Step 9: We will then create a while loop that thanks the user and ask them what they would like to do

Step 10: We will have them type either 1 (which means they want to deposit) 2(which means they want to withdraw) 3(which means they want to know the amount they have in their account) and 4(Which means they want to create an account)

Step 11: This next step depends on what the user selects, if they select 1 then we will ask them for the amount they would like to deposit and call the depositMoney method, if they say 2 then we will ask how much and then call the withdraw method, if they call 3 then we will do the

getBalance method, and if they say 4 then we will do the create account method but first check if the array of accounts is full before we do create the account and then respond depending on if there is space for another account or not.