

This homework will give you practice creating, populating, searching, modifying, and printing arrays, and writing and calling methods.

Write a complete Java program to process several transactions for a bank account. First, read the following sets of account numbers and their corresponding balances from an input file named “**initialBank.txt**” into a set of parallel arrays (we will not be adding any accounts into the bank so you can initialize your arrays to the exact size of 15):

ACCTS	BALANCES
123456	1000.00
098765	500.00
246813	1500.00
135792	2000.00
987654	3000.00
029384	2500.00
567890	4000.00
789012	10000.00
456789	8000.00
321654	600.00
741852	3500.00
369258	4500.00
582349	700.00
493785	1200.00
876512	900.00

Then, prompt the user to enter their account number. If the account number does not exist (hint: we need to search for the account!) the program should print out an error.

If the account exists, your program should allow the user to choose from a menu that gives options to (1) withdraw, (2) deposit, (3) check balance, or (4) exit. Your program should allow the user to have continued transactions until exit is chosen, then your program should go back to the start where it prompts for an account number and should repeat the process UNTIL a specific entry is entered as an account number, this can be up to you! (ex. Try to think of something that would never be an account number)

In addition to the main method, you should write the following SIX methods:

1. A method called `findAccount` that accepts the account number and the `accountNumber` array. The method should then search through the array to find the account number. If the account number is found, then the method should return the index where it is found. If the account number is NOT found, the method should return -1.

**`public static int findAccount(int accountNumber, int [] accts)`**

2. A method that takes the keyboard scanner from the main method, and displays a menu on the screen, reads the user's choice, and returns the choice entered.

**`public static int menu(Scanner sc)`**

4. A method called `withdraw` that accepts the account number, the two arrays, and the `Scanner` object. The method prompts the user for the amount to withdraw. If the amount is less than the balance, the method subtracts the amount and updates the `balances` array with the new balance. Otherwise it prints out an error.

**`public static void withdraw (int accountNumber, int [] accts, double [] balances, Scanner sc)`**

5. A method called `deposit` that accepts the account number, the two arrays, and the `Scanner` object. The method prompts the user for the amount to deposit. The method adds the amount to the balance and updates the `balances` array with the new balance.

**`public static void deposit (int accountNumber, int [] accts, double [] balances, Scanner sc)`**

6. A method that accepts the account number and the two arrays and prints the corresponding balance.

**`public static void checkBalance(int accountNumber, int [] accts, double [] balances)`**

3. A method called `printAccounts` that accepts the two arrays and a `PrintWriter` object and prints them out in a two-column table format.

**`public static void printAccounts(int [] accts, double [] balances, PrintWriter pw)`**

Once all the transactions are done, call the `printAccounts` method to print the modified arrays to an output file named "**`modifiedBank.txt`**". Submit the Java program, the output `.txt` file, and a text file named "**`transactions.txt`**" with a copy of the input you used from the console to modify the arrays.