



## Account

### Deposit

- Take transaction as parameter and add to account balance

### Withdraw

- Take transaction as parameter and subtract from account balance

### +=

- Ask user for transfer amount
- If the transfer amount is greater than the balance, do not perform operation
- otherwise, withdraw money from source account and deposit into destination account
- return the destination account

### Accounts

#### Add

- Increase user-defined size by 1
- Insert account parameter into the “last” element of the dynamic array

#### findID

- Loop through all accounts to see if there is a matching id
- if so, return the account

#### at

- return the account at the index specified by the parameter

### AccountSystem

#### Add

- Prompt user for the account ID
- Check if ID already exists in accts and if so, do not make a new account
- Prompt user for information of account
- Create an account variable and store user information in it
- Add account to accts using add() method of Accounts
- Inform user account has been added

#### Deposit

- Check if accts size is > 0, if not end method
- prompt user for the account ID
- Loop through accts to find account
  - if found, ask user for deposit amount
  - Deposit money using at() method of Accounts and deposit() method of Account
  - inform user of deposit
- If not found, inform user account has not been found

#### Withdraw

- Check if accts size is > 0, if not end method
- prompt user for the account ID
- Loop through accts to find account
  - if found, ask user for deposit amount
  - Withdraw money using at() method of Accounts and withdraw() method of Account
  - inform user of withdrawal
- If not found, inform user account has not been found

#### Transfer

- Check if accts size is > 0, if not end method
- make two boolean variables to store matches of the two accounts and initialize as false

- Prompt user for the source account id and destination account id
- Loop through accts to find the accounts
  - if an account is found, turn the corresponding boolean variable to true
- if both the accounts were found, transfer money between accounts using += operation of Account
- If either account wasn't found, inform user account has not been found and end method

#### PrintAllAccounts

- Check if accts size is > 0, if not end method
- Loop through accts and print each account information in nice formatted way