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□ → new change

InsufficientBalanceException

+InsufficientBalanceException(message: String)

MainBank

-Accounts: List<Account>

+MainBank()

+addAccount(account: Account)

+addAccount(account: Account)

+removeAccount(account: Account)

+getAccount(accountNumber: int)

+getTotalDeposits():

+getTotalWithdrawals()

UIManager

- menuOptions: String[]
- prompt: String
- scanner: Scanner
- in: InputStream
- out: OutputStream
-intErrorMessage: String
- doubleErrorMessage: String

+UIManager(in: InputStream, out: OutputStream, options: String[], prompt: String)

+ getIntErrorMessage(): String

+ setIntErrorMessage(msg: String)

+ getDoubleErrorMessage(): String

+ setDoubleErrorMessage(msg: String)

+ getMainOption(): int

+ readLine(msg: String): String

+ readToken(msg: String): String

+ readDouble(msg: String): double

+ readInt(msg: String): int

+ print(s: String, variables: Object[]): void

Bank

- exchangeRateLoaded: boolean

- ACCOUNT_FILE: String

- accounts: Map<Integer, Account>

+ getAccount(accountNumber: int)

+ loadFinished()

+ openCheckingAccount(firstName: String, lastName: String, ssn: String, overdraftLimit: double, currency: String): Account

+ openSavingAccount(firstName: String, lastName: String, ssn: String, currency:

+ lookup(accountNumber: int): Account throws NoSuchAccountException

+ makeDeposit(accountNumber: int, amount: double): void throws AccountClosedException, NoSuchAccountException

+ makeWithdrawal(accountNumber: int, amount: double): void throws InsufficientBalanceException, NoSuchAccountException

+ closeAccount(accountNumber: int): void throws NoSuchAccountException

+ getBalance(accountNumber: int): double throws NoSuchAccountException

+getCurrencyExchangeRate(exchangeRates: Map<String, Double>, sourceCurrencyCode: String, targetCurrencyCode: String): double

+ getAccountBalanceInUSD(account: Account, exchangeRates: Map<String, Double>, accountCurrency: String): double

+printAccountTransactions(accountNumber: int, out: OutputStream): void throws IOException, NoSuchAccountException

+ findAccount(accountNumber: int): Account

+ currencyConverter(amount: double, sourceCurrencyCode: String, targetCurrencyCode: String): double throws IOException

NoSuchAccountException

+NoSuchAccountException (String message)

CheckingAccount

- overdraftLimit: double

+ CheckingAccount(c: Customer, od: double, currency: String)

+ withdraw(amount: double): void

+ getOverdraftLimit(): double

+setOverdraftLimit(overdraftLimit: double): void

Customer

- firstName: String

- lastName: String

- ssn: String

+Customer()

+ Customer(fName: String, lName: String, ssn: String

+ Customer(p: Customer)

+ setFirstName(s: String): void

+ setLastName(s: String): void

+ setSSN(s: String): void

+ getFirstName(): String

+ getLastName(): String

+ getSSN(): String

+ toString(): String

+ equals(obj: Object): boolean

SavingAccount

- serialVersionUID: long

+SavingAccount(Customer,String)

+ withdraw(double): void

Accounts

- accountName: String

- accountHolder: Customer

- transactions: ArrayList

- currency: String

- balance: double

- ssn: String

- open: boolean

- accountNumber: int

- accounts: Map<Integer, Account>

- exchangeRates: Map<String, Double>

-exchangeRatesLoaded: boolean

+ Account(String)

Account(double)

+ setCurrency(String):void

+ setBalance(double): void

+ getAccountName(): String

+ getSSN(): String

+ getAccountHolder(): Customer

+ getBalance(): double

+ deposit(double): void

+ withdraw(double): void

+ close(): void

+ isOpen(): boolean

+ getAccountNumber(): int

+ toString(): String

+ printTransactions(OutputStream): void

+ getCurrency(): String

Transaction

- serialVersionUID: long

+ CREDIT: char

+ DEBIT: char

- txnID: int

- amount: double

- type: char

+ Transaction(type: char, amount: double)

+ getAmount(): double

+ getType(): char

+ toString(): String

AccountClosedException

+ AccountClosedException()

+ AccountClosedException(message: String)

+ AccountClosedException(cause: Throwable)

+ AccountClosedException(message: String, cause: Throwable)

+ AccountClosedException(message: String, cause: Throwable, enableSuppression: boolean, writableStackTrace: boolean)