UML Class Diagram

«interface» Serializable

DebtAccount *(abstract)*

- maximum: double

~ DebtAccount(double)

+ getMaximum(): double

~ transferIn(double): void
~ incurDebt(double): boolean
+ withdraw(double, Machine): boolean
+ deposit(Machine, Transaction): double

Account *(abstract)*

~ accountNum: String
~ creationDate: Date
- balance: double
- transactions: ArrayList<Transaction>
- isJoint: boolean = false

+ CREDIT: String = 1
+ LOCREDIT: String = 2
+ CHEQUING: String = 3
+ SAVING: String = 4
+ TIMEDEPOSIT: String = 5
+ STOCK: String = 6
- outgoing: File
- deposit: File

~ Account()

+ isJoint(): boolean
+ setJoint(): void
+ getBalance(): void
+ setBalance(double): void
+ getAccountNum(): String
+ addTransaction(Transaction): void
+ getTransactions: ArrayList<Transaction>

~ billsOut(double): void
+ deposit(Machine, Transaction): double

~ *getAccountTypo(): String*
~ *transferIn(double): void*
~ *withdraw(double, Machine): boolean*
+ *toString(): String*

AssetAccount *(abstract)*

- LowestBalance: double

~ AssetAccount(double)

+ getLowestBalance: double
~ transferOut(Account, double): boolean
~ transferIn(double): void
+ deposit(Machine, Transaction): double
~ payBill(double): void

Chequing

- num: int
- LOWLIMIT: double = -100
- ACCOUNT_TYPE: String =

"chequing account"

+ Chequing()
+ withdraw(double, Machine): boolean
+ toString(): String
+ getAccountType(): String

+ type(): String

Savings

- num: int
- SAVING_INTEREST: double = 0.001
- ACCOUNT_TYPE: String =
"savings account"

+ Savings()
+ withdraw(double, Machine): boolean
+ addInterest(): void
+ toString(): String
+ getAccountType(): String

+ type(): String

CreditCard

- num: int
- ACCOUNT_TYPE: String =

"credit card account"

+ CreditCard(double)
+ getAccountType(): String
+ toString(): String

+ type(): String

LineOfCredit

- num: int
- ACCOUNT_TYPE: String =

"line of credit account"

+ LineOfCredit(double)
~ payBill(double): boolean
+ toString(): String
+ getAccountType(): String

+ type(): String

TimeDeposit

- termLength: int
- remainingTerm: int

- num: int
- TIMEDEPOSIT_INTEREST: double = 0.01
- ACCOUNT_TYPE: String =

"time deposit_account"

+ TimeDeposit (int termLength)
+ withdraw (double, Machine): boolean
+ addInterest(): void
+ toString(): String
+ getAccountType(): String

+ type(): String