Lecture/Workshop (Week 6)

**public class MoneyCard**

**{**

**private String cardNumber;**

**private String customerName;**

**private String currency;**

**private double balance;**

**public MoneyCard(String cardNo, String custName,**

**String currType)**

**{**

**cardNumber = cardNo;**

**customerName = custName;**

**currency = currType;**

**balance = 0;**

**}**

**public double getBalance()**

**{**

**return balance;**

**}**

**public void addFunds(double amount)**

**{**

**if (amount <= 0)**

**{**

**System.out.println(amount +**

**" is not a valid amount to add!");**

**}**

**else**

**{**

**balance = balance + amount;**

**}**

**}**

**public void makePurchase(double amount)**

**{**

**if (amount <= 0)**

**{**

**System.out.println("Not a valid amount");**

**}**

**else if (amount > balance)**

**{**

**System.out.println("Not enough funds");**

**}**

**else**

**{**

**balance -= amount;**

**}**

**}**

**public void displayMoneyCard()**

**{**

**System.out.println("MoneyCard details: "**

**+ "\n\tcardNumber: " + cardNumber**

**+ "\n\tcustomerName: " + customerName**

**+ "\n\tcurrency: " + currency**

**+ "\n\tbalance: " + balance);**

**}**

**public String toString()**

**{**

**String description = "MoneyCard["**

**+ " cardNumber: " + cardNumber**

**+ " customerName: " + customerName**

**+ " currency: " + currency**

**+ " balance: " + balance + "]";**

**return description;**

**}**

**}**

**public class MoneyCardTester**

**{**

**public static void main(String[] args)**

**{**

// Test 1 - create a money card and display it

**MoneyCard a1 = new MoneyCard("C10", "Smith", "EUR");**

**System.out.println(a1.toString());**

// Test 2 . add funds and display the money card

**a1.addFunds(200);**

**System.out.println(a1);**

// Test 3 . try to add an invalid amount and see

**// how the object handles it**

**a1.addFunds(-100);**

**System.out.println(a1);**

// Test 4 - make a purchase

**a1.makePurchase(100);**

**System.out.println(a1);**

// Test 5 - make an invalid purchase request

**a1.makePurchase(0);**

**System.out.println(a1);**

// Test 6 - make a purchase request that is too large

**a1.makePurchase(300);**

**System.out.println(a1);**

// Test 7 - get the balance

**double balance = a1.getBalance();**

**System.out.println("balance: " + balance);**

// Test 8 . display the money card details

**a1.displayMoneyCard();**

**}**

**}**

**Lecture/Workshop (Week 7) – MoneyCardTester output**

**MoneyCard[ cardNumber: C10 customerName: Smith currency: EUR balance: 0.0]**

**MoneyCard[ cardNumber: C10 customerName: Smith currency: EUR balance: 200.0]**

**-100.0 is not a valid amount to add!**

**MoneyCard[ cardNumber: C10 customerName: Smith currency: EUR balance: 200.0]**

**MoneyCard[ cardNumber: C10 customerName: Smith currency: EUR balance: 100.0]**

**Not a valid amount**

**MoneyCard[ cardNumber: C10 customerName: Smith currency: EUR balance: 100.0]**

**Not enough funds**

**MoneyCard[ cardNumber: C10 customerName: Smith currency: EUR balance: 100.0]**

**balance: 100.0**

**MoneyCard details:**

**cardNumber: C10**

**customerName: Smith**

**currency: EUR**

**balance: 100.0**