### Exercise 11.1

## GeometricObject

-color: String -filled: Boolean

-dateCreated: java.util.Date

+GeometricObject()

+GeometricObject(color: String, filled: boolean)

+getColor(): String

+setColor(color: String): void

+isFilled(): boolean

+setFilled(filled: boolean): void +getDateCreated(): java.util.Date

+toSting(): String

# Triangle

-side1: double -side2: double -side3: double

+Triangle()

+Triangle(side1: double, side2: double, side3: double)

+getSide1(): double +getSide2(): double +getSide3(): double +getArea(): double +getPerimeter(): double +toString(): String

### Exercise 11.3

### Account

-id: int

-balance: double

-annualInterestRate: double

-dateCreated: Date

Account()

Account(id: int, balance: double)

+setId(id: int)

+setBalance(balance: double)

+setAnnualInterestRate(annualInterestRate: double)

+getId(): int

+getBalance(): double

+getAnnualInterestRate(): double

+getDateCreated(): String

+getMonthlyInterestRate(): double +getMonthlyInterest(): double +withdraw(amount: double) +deposit(amount: double)

+toString: String

# CheckingAccount

-overdraftLimit: double

+CheckingAccount()

+CheckingAccount(id: int, balance: double, overdraftLimit: double)

+setOverdraftLimit(overdraftLimit: double): void

+getOverdraftLimit(): double

+withdraw(amount: double): boolean

+toString(): String

# SavingsAccount +SavingsAccount() +SavingsAccount(id: int, balance: double): +withdraw(amount: double): void

# Exercise 11.5

## Course

-courseName: String

-students: ArrayList<String>

+Course(courseName: String)
+addStudent(student: String): void

+getStudents(): String[]

+getNumberOfStudents(): int +getCourseName(): String

+dropStudent(student: String): void