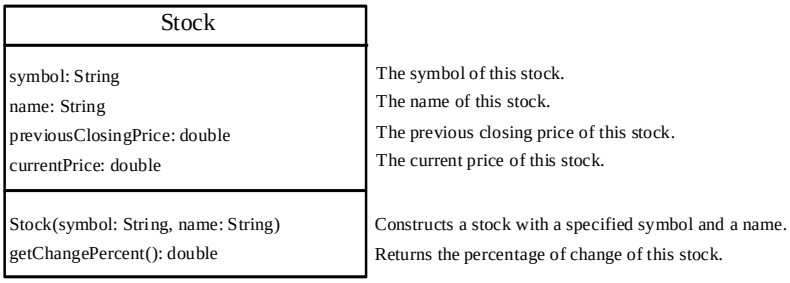
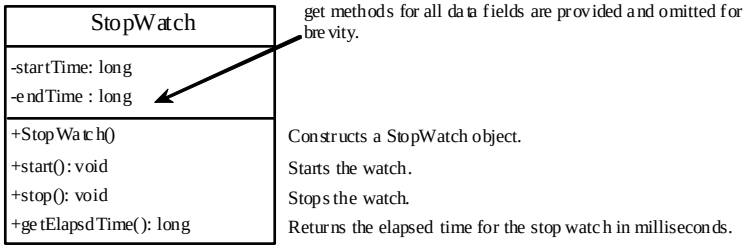
Solutions for UML Class Diagrams

Chapter 9

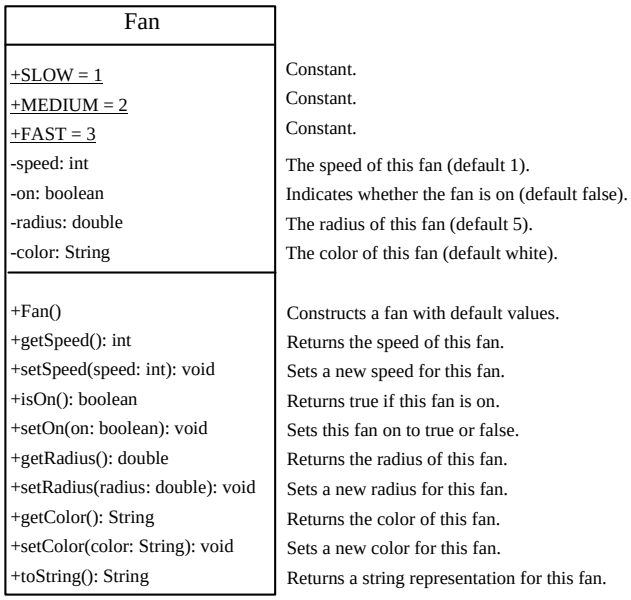
Exercise 9.2: Stock



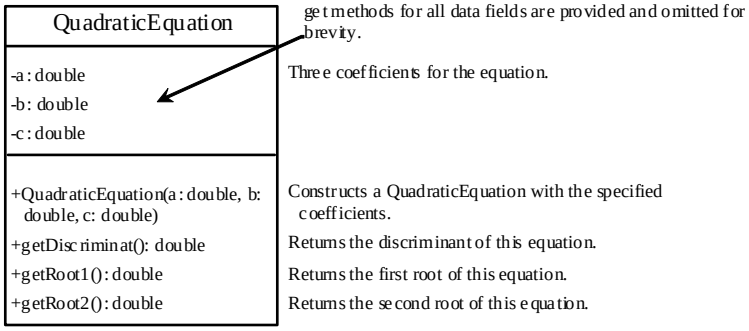
Exercise 9.6: StopWatch



Exercise 9.8: Fan



Exercise 9.10: QuadraticEquation



Chapter 10

Exercise 10.4: MyPoint

MyPoint	
-x: double	x-coordinate of this point.
-y: double	y-coordinate of this point.
+MyPoint()	Constructs a Point object at (0, 0).
+MyPoint(x: double, y: double)	Constructs an object with specified x and y values.
+getX(): double	Returns x value in this object.
+getY(): double	Returns y value in this object.
+distance(secondPoint: MyPoint): double	Returns the distance from this point to another point.
+distance(p1: Point, p2: MyPoint): double	Returns the distance between two points.

Exercise 10.8: Tax

Tax
-filingStatus: int
-brackets: int[][]
-rates: double[]
-taxableIncome: double
+Tax()
+Tax(filingStatus: int, brackets: int[], rates: double[], taxableIncome: double)
+getFilingStatus(): int
+setFilingStatus(filingStatus: int): void
+getBrackets(): int[][]
+setBrackets(brackets: int[][]): void
+getRates(): double[]
+setRates(rates: double[]): void
+getTaxableIncom(): double
+setTaxableIncome(taxableIncome: double): void
+getTax(): double

Exercise 10.12: MyRectangle2D

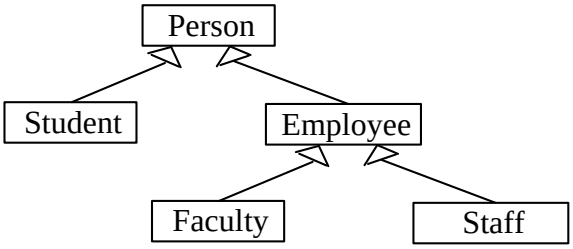
MyRectangle2D
-x: double -y: double -width: double -height: double
+MyRectangle2D() +MyRectangle2D(x: double, y: double, width: double, height: double) +getX(): double +setX(x: double): void +getY():double +setY(y: double): void +getWidth(): double +setWidth(width: double): void +getHeight(): double +setHeight(height: double): void +getRadius(): double +getPerimeter(): double +getArea(): double +contains(x: double, y: double): boolean +contains(r: Rectangle2D): boolean +overlaps(r: Rectangle2D): boolean

Exercise 10.14: MyDate

MyDate	
-year: int	The year for the date.
-month: int	The month for the date.
-day: int	The day for the date.
+MyDate()	Constructs MyDate for the current date.
+MyDate(elapsedTime: long)	Constructs MyDate with a specified elapse time in milliseconds.
+getYear(): int	Returns the year for the date.
+getMonth(): int	Returns the month for the date.
+getDay(): int	Returns the day for the date.
+setDate(elapsedTime: long): void	Sets a new date using the elapsed time.

Chapter 11

Exercise 11.2: Person, Student, Staff, Employee

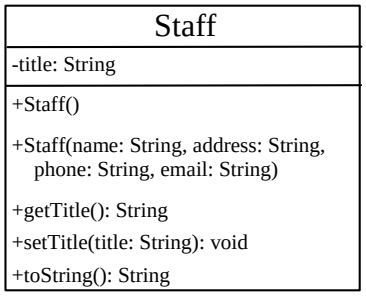


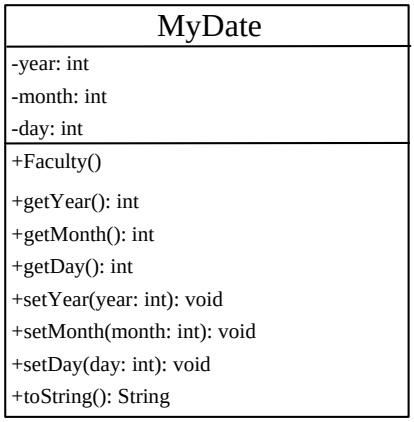
Person
-name: String -address: String -phone: String -email: String
+Person() +Person(name: String, address: String, phone: String, email: String) +getName(): String +getAddress(): String +getPhone(): String +getEmail(): String +setName(name: String): void +setAddress(address: String): void +setPhone(phonee: String): void +setEmail(email: String): void +toString(): String

Student
-status: String
+Student() +Student(name: String, address: String, phone: String, email: String) +getStatus(): String +setStatus(status: String): void +toString(): String

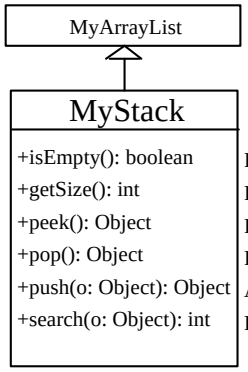
Employee
-office: String -salary: int -dateHired: java.util.Date
+Employee() +Employee(name: String, address: String, phone: String, email: String) +getOffice(): String +getSalary(): int +getDateHired(): Date +setOffice(office: String): void +setSalary(salary: int): void +setDateHired(dataHired: Date): void +toString(): String

Faculty
-officeHour: String -rank: String
+Faculty() +Faculty(name: String, address: String, phone: String, email: String) +getOfficeHour(): String +setOfficeHour(officeHour: String): void +getRank(): String +setRank(rank: String): void +toString(): String


Staff
-title: String
+Staff()
+Staff(name: String, address: String, phone: String, email: String)
+getTitle(): String
+setTitle(title: String): void
+toString(): String


MyDate
-year: int
-month: int
-day: int
+Faculty()
+getYear(): int
+getMonth(): int
+getDay(): int
+setYear(year: int): void
+setMonth(month: int): void
+setDay(day: int): void
+toString(): String

Exercise 11.10: MyStack



Returns true if this stack is empty.

Returns the number of elements in this stack.

Returns the top element in this stack.

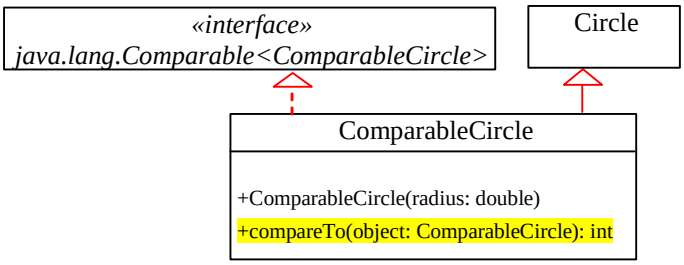
Returns and removes the top element in this stack.

Adds a new element to the top of this stack.

Returns the position of the first element in the stack from the top that matches the specified element.

Chapter 13

Exercise 13.6: ComparableCircle



Exercise 13.10: Rectangle