# Programming Exercises - SDJ - Session 03

**Exercise 3.01**   The Person class

Create a class called Person representing a person with 2 fields: A name (String) and a birthday (String).

  a)  First draw a UML class diagram of the class (use astah).
  b)  Then implement the class Person in Java.
  c)  Add get and set methods for the fields.
  d)  Implement a test class with a main method for your class Person, where you create at least two Person objects, use the set methods to assign values to the fields, and then finally print out the values by using the get methods.

**Exercise 3.02**   The MyDate class

Create a class called MyDate that includes three pieces of information as fields: A day (int), a month (int), and a year (int).

  a)  First draw a UML class diagram of the class, and then implement it in Java.
  b)  Add set and get methods for each field.
  c)  Add a method displayDate that returns the day, month, and year separated by forward slashes (e.g. 31/8/2015).
  d)  Write a test program named MyDateTest that demonstrates class MyDate's capabilities, by creating at least two MyDate objects, setting the fields, and then printing out the dates by calling their displayDate methods.

**Exercise 3.03**   The Payroll class

  a)  Design and implement a Payroll class that has fields for an employee's name, hourly pay rate, and number of hours worked.
  b)  Write the appropriate accessor and mutator methods to get and set the fields.
  c)  The class should also have a method that returns the employee's gross pay (hourly pay rate multiplied with the number of hours worked).
  d)  Write a PayrollTest class that demonstrates class Payroll's capabilities. Use the Scanner class to let a user enter the employee's information on their keyboards.

**Exercise 3.04**      [Gaddis] Programming Challenge 1, p. 166