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The University of Melbourne

School of Computing and Information Systems

## **COMP90041 Programming and Software Development**

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Semester 1, 2020, Week 5

Workshop Instructions

### **Writing Java Class**

1. Write a class named `Appointment` that contains instance variables `startTime`, `endTime`, and a date which consists of a `day`, `month` (valid values are January through December) and `year`. All times should be in military (24 hours) format, therefore it is appropriate to use integers to represent the time. Write accessor and mutator methods, and helper methods for setting and displaying an appointment.
2. Add two constructors to the `Appointment` class, including a default constructor and a constructor to initialise an `Appointment` to suitable arguments.
3. Write a driver program that tests your `Appointment` class.
4. Rewrite the mutator method for setting the `day` in the `Appointment` class in a way that it has to use the `this` keyword.
5. Modify mutator methods for setting `day`, `month` and `year` so that only valid values for those instance variables are accepted. Then test the class again (using your driver class) and make sure that it still works and accepts valid values only.
6. Write a precondition for the `endTime` mutator method that ensures validity of `endTime`.
7. Draw a UML class diagram for the classes used in the exercises above.