

Meetings 5&6 Exercises

Q1: Write a Java class called `Date` which has:

- 3 instance variables `day`, `month` and `year`
- 2 constructors (a multi-argument constructor and a zero-argument one)
- getters and setters for the three instance variables
- `toString()` method

Q2: Write a Java class called `WashingMachine` which:

- is a subclass from `Machine` class (refer to Meetings 3&4 Exercises)
- has 2 new instance variables `productionDate` and `capacity`
- has 2 constructors (a multi-argument constructor and a zero-argument one)
- has getters and setters for the new instance variables
- has `toString()` method which calls the `toString()` of the super class
- has `equals()` method (check equality of all attributes except `power`)
- has `compareTo()` method to be used in sorting (according to `brandName` then `capacity`)

Q3: Write a Java class called `TestWashingMachines` which has a main method to test your code as follows:

- create a `WashingMachine` object called `wm` using the multi-arg constructor
- print the status of `wm`
- declare and create an `ArrayList` of washing machines
- fill the list with suitable data
- check if `wm` is in the list
- sort the list and print it after sorting

Q4: Draw a simple class diagram showing only relationships between the classes.