SD1, week 10

Task 8A: Complete Club Class
(Also see exercises 4.40-4.42 in BlueJ Book/5th Ed.)

Download lab 7 material from vision and import it in eclipse into the "club" project in folder "SD1code/lab6", complete the following exercises.

1. Within Club define a field for an **ArrayList**, which holds the current memberships. Use an appropriate import statement and think carefully about the element type of the list. Don't forget to instantiate the field in the constructor.

2. Membership of the club is represented by an instance of the **Membership** object .(You shouldn't have to modify the existing membership class.) Complete the **join** method in in **Club**.

3. Write a **main** method, which adds two new members to the club and prints out the current size of the club.

Task 8B: Add methods to Club
(Also see exercises 4.54-4.55 in BlueJ Book/5th Ed.)

In this exercise, you have to 'translate' code documentation into code. First familiarize yourself with how to write documentation (read Chapter 5.10).

1. Add the **joinedInMonth** method to the Club class, which has the following description.

```
/**
  * Determine the number of members who joined in a
given month.
  * @param month The month we are interested in.
  * @ return The number of members who joined in that
month.
  */
public int joinedInMonth(int month)
```

2. Define a method in Club with the following description:

```
/**
 * Remove from the club's collection all members who
 * who joined in the given month, and return them
 * stored in a separate collection object.
 * @param month The month of the membership.
 * @param year The year of the membership.
 * @return The members who joined in the given month
 * and year.
 */
public ArrayList<Membership> purge(int month, int year)
```

Note that the purge method is slightly more challenging than the other methods in this class! Try using some of the Iteration methods we have discussed in the lecture.