ArrayList of < Association < K, V> >

Open Spells.java and Association.java in DrJava. Read carefully Spells.java before compiling it. Understand the numbered steps by reading the comments.

Step 0

a. Once you have a good grasp of the code, compile and run the client program.

Remember from previous labs you can type at the Interactions window like at a console

> run ClassName arg1 ...

which is the DrJava syntax for the Unix console

> java ClassName arg1

Run the program multiple times to output different spells.

b. Then try the following

- comment the line

    spell[9] = new Association<String, String>("Incendio", "Start a fire");

- uncomment the line below

    spell[9] = new Association<String, String>(null, "Start a fire");

- compile and run (with command line argument) the program

- observe the error

  - why is it happening? ________________________________________________________________________
  You need to look at the class Association

This week online reading includes notes about Assertions. In DrJava assertions are enable by default, so you don’t have to worry about using the command flag -ea. (A flag is a command line argument, which starts with a dash). Ask us if you are not sure.
1. Array to ArrayList

The goal now is to modify the code so that instead of using an array for storing the ten associations, i.e. the spells, you use a linear collection that dynamically expands: the ArrayList data structure.

- Open Lab8.java in DrJava
- Compile it and run it: it is similar to Spells.java
- Complete step 1 by following labels 1.a, 1.b, 1.c: try to test each subpart, by uncommenting/commenting out relevant part of code

Make sure you test the ArrayList object creation and initialization (adding the content of the init method).

2. addUnique

To help you start the next homework correct the addUnique method, so that only an association, whose key is not already in the ArrayList, is actually added to the collection.

- Complete step 2 by writing the addUnique method to only inserts unique key.
- Test your method implementation using the print method after some addUnique calls.

3. WordGen

- Read the homework description: underline, highlight or take rough notes. Do the thing that works for you. You should find that you have to read three times: circle that when you find it.
- Prepare a design document.
- Ask us questions: we are there to help you.