

159.272 Programming Paradigms

Tutorial 4

Test Cases as Specification

Objectives

1. implement an interface
2. use test cases as specification

Instructions

Your task is to implement a simple data structure, a list of strings, according to a specification that consists of an interface and a set of tests.

1. download tutorial 4 template.zip from Stream
2. this file contains an Eclipse project, import this as follows into Eclipse:
File > Import > General > Existing Projects Into Workspace > Select Archive File
3. after importing, rename the project:
select project > Refactor > Rename , the new name should be Tutorial 4 - <your student id>
4. then rename the package nz.ac.massey.cs.pp.tutorial4.idyourid,
replace "yourid" by your student id:
select package > Refactor > Rename
5. this package contains a class MySimpleList with 4 methods. You task is to implement these 4 methods until all the tests in MySimpleListTests succeed.
6. You must not:
 - 1 change anything in MySimpleListTests or any class or interface in the nz.ac.massey.cs.pp.tutorial4 package
 - 2 modify the definition of the sole instance variable in MySimpleList, or add other instance variables
7. You can run MySimpleListTests as follows:
select MySimpleListTests > Run As > JUnit Test
the actual tests are defined as methods in SimpleListTests, the superclass of MySimpleListTests

Initially, most tests will fail. Your task is to program the methods in MySimpleList until all tests succeed.

Hints

- 1 when comparing objects, think careful whether to use equals or == (identity)
- 2 use the strategy used in `java.util.ArrayList` when the internal array is full (see lecture notes for details)