

# JSF2 Exercises:

## Looping and ui:repeat

Remember the advice from the exercises on the expression language: you can create a managed bean, then test it out in a standalone JSF page. In this case, you would just make a managed bean that has a property (i.e., getter method) that returns an array or List. You don't need a form, action controller, or results page. Also, don't forget that you must define the ui: namespace (in the <html...> start tag) in pages that use ui:repeat. Finally, note the somewhat odd rules in the spec: if you say <ui:repeat val="whatever" value="#{someBean.someProp}"> and the bean named someBean is not found, it does not give an error message. Instead, it just outputs an empty string. So, if you are not getting any output and your getSomeProp method is not being called, verify that your managed bean is defined and spelled correctly.

- 1.** Make a bean with a getColors method that returns a small String[] (or List<String>). Build a <ul> list that displays all of those color values.
- 2.** Make another bean (or add a new method to the previous bean). This time, make a getFriends method that returns a Name[] or List<Name>. The Name class should have getFirstName and getLastName methods, but not a getFullName method. Build a <ul> list that displays the full names of the people.
- 3.** Return to the getColors method. But this time, instead of building a <ul> list of *all* the colors, build a <ul> list of all *except* the first and last entries.
- 4.** Define a QuarterlyGrades class that stores an array of exam grades. Make an array of QuarterlyGrades, and display the exam grades in a table. The point here is that each QuarterlyGrades object has a getGrades method that returns an array of numbers, and you then have an array of those QuarterlyGrades objects. Hints: assume that each QuarterlyGrades object contains the same number of grades (so the rows are balanced), but do not assume that you know ahead of time what that number is. That is, if you later change each QuarterlyGrades to store 5 numbers each instead of 4, your previous code should still work. Remember that you *cannot* loop down an int[] with ui:repeat, but you *can* loop down an Integer[]. If you feel extra-inspired, add a heading at the top of the table that says "Exam 1", "Exam 2", etc.