

Exercises, SDJ1

Exercise: Create an HTML file with a table for class GradeList

Pretend that you have the following grade's stored in a GradeList and you want the output shown in a table in HTML:

```
GradeList list = new GradeList(10);
list.addGrade(new Grade(12, "SDJ"));
list.addGrade(new Grade(-3, "RWD"));
list.addGrade(new Grade(7, "SEP"));
```

Grade List

This is a grade list example.

Course	Grade
SDJ	12
RWD	-3
SEP	7

The below shown file represents a template for an HTML file containing a table with data for a grade list.

The file contains the following placeholders:

- **\$title**: the title for the web page
 - **\$header**: the header title in the body
 - **\$paragraph1**: a text/paragraph in the body
 - **\$tableHeader1**, **\$tableHeader2**: header titles for each of the two columns in the table
 - **\$tableData1**, **\$tableData2**: data (course and grade) for one of the Grade objects in the grade list.
- Note that this line have to be repeated for each of the Grade objects in the grade list.

```
<html>
<head>
<title>$title</title>
<style>
    table,th,td{
        border:1px solid black;
    }
    table{
        border-collapse:collapse;
        width:30%;
    }
    td{
        height:40px;
        text-align:center;
    }
    th{
        background-color:grey;
        color:black;
    }
</style>
</head>
<body>
<h1>$header</h1>
<p>$paragraph1<p>
<table>
    <tr><th>$tableHeader1</th><th>$tableHeader2</th></tr>
    <tr><td>$tableData1</td><td>$tableData2</td></tr>
</table>
</body>
</html>
```

Create a program doing the following

1. Create a GradeList with a few grades (e.g. the statements shown in the example above)
2. Read the HTML file given above (as a text file). This file represents a template for an HTML file with data for a grade list. Store the file content locally in an ArrayList<String> (one String for each line)
 - a) When you read one of the placeholders **\$title**, **\$header**, **\$paragraph1**, **\$tableHeader1** and **\$tableHeader2**, replace the placeholder with the proper values. Hint: use String method replace:
`line = line.replace("$tableHeader1", "Course");`
 - b) When you read the line with the placeholders **\$tableData1** and **\$tableData2**, repeat inserting a line for each of the elements in the GradeList with the data instead of the placeholders.
3. After reading and replacing, your ArrayList now contains HTML data for the GradeList you created. Write the data from your ArrayList to a text file (with extension .html)