

## Exercise

We're going to build a spreadsheet application like Excel or Numbers.

Classes in the **flyweight** package show our current implementation of **Cell** and **SpreadSheet** concepts.

If you run the code in the **Demo** class, you'll see a 3x3 spreadsheet printed on the console. Note that the font of the first cell is different from the font of other cells. So, a user can set various formatting attributes such as font name, font size, bold, etc for each cell individually.

The problem with the current implementation is that each cell is storing its font family, font size and bold characteristics. What if many cells share the same formatting attributes? Storing these attributes for every cell would be a waste of memory. While this is not a big deal in a small spreadsheet, it may cause our application to crash if we have a spreadsheet with 100,000+ rows of data.

Use the flyweight pattern to solve this problem.