

# Programming Exercise 10.8

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## 10.8 Making Excel Spreadsheets

**Purpose.** Write a program that outputs an Excel spreadsheet XLS file.

Modify Exercise 7.3's `ChangeDue4.java`, replacing its console output with XLS file output. Name the new program `ExcelXls.java`.

**Requirements:** same as 7.3's Making Change, v.4.0, with these changes

1. Output to a text file named `change.xls`, in addition to console output.
2. Do *not* include a replay-loop – just gather one set of input values, calculate, and send output to the console and to the XLS file.

**Program I/O.** Input: 2 whole numbers from the console keyboard, first for the “cash payment” and then for the amount “tendered”. Output: To the console screen, the “change due” and the numbers of each specified denomination to be “paid out”, skipping zeros. To the `change.xls` file, a header row for two columns: “denomination” and “total”, and a row for each non-zero denomination’s total.

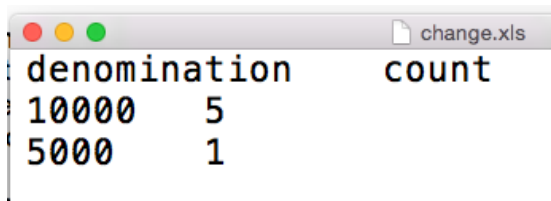
**Supplemental.** Read about XLS file output in [www.rdb3.com/java/exercises/xls.supplemental.pdf](http://www.rdb3.com/java/exercises/xls.supplemental.pdf).

**Example.** Here's what the output should look like:

```
Cash payment amount: 45000
Tendered amount: 100000
Change due: 55000
```

```
Change paid out in:
  this many ten thousand dollar bills: 5
  this many five thousand dollar bills: 1
```

...and here's what the `change.xls` file should look like when viewed in a text editor:



```
change.xls
denomination    count
10000          5
5000           1
```

...and here's what the `change.xls` file should look like when opened in Excel:

	A	B
1	denominatio	count
2	10000	5
3	5000	1