

Exercises: JSON Generation

Use the org.json JSON-generation utilities for all of these problems. The very first thing you should do is to open my json-generation project, go to WebContent/WEB-INF/lib, and copy the one JAR file there to WebContent/WEB-INF/lib of your new project.

- 1.** Make a servlet that returns the richest customer in JSON format. On the browser, make a pushbutton that, when pressed, results in a bulleted list of the id, first name, last name, and balance of that richest customer. Remember that my CustomerUtils class already has a method that returns the richest customer.
- 2.** Make a servlet that returns an array of the two richest customers in JSON format. On the browser, make a pushbutton that, when pressed, results in two bulleted lists of the id, first name, last name, and balance of those two richest customers. Remember that my CustomerUtils class already has a method that returns the two richest customers.
- 3.** Make a form with a textfield and a pushbutton. The user should enter a customer ID and press the button, and should see (in the same page) a bulleted list of the id, first name, last name, and balance. I have a method in CustomerUtils called getCustomerOrDefault that will simplify the customer info for unknown ids.
- 4.** Make the previous problem a bit fancier. Make a form with a textfield and a pushbutton. The user should enter a customer ID and press the button, and should see (in the same page) either:
 - A bulleted list of the id, first name, last name, and balance
 - An error message for an unknown/missing idDisplay the balance in one color (e.g., blue) if it is positive and in another color (e.g., red) if it is negative.
- 5.** Make a form that contains a textarea to collect an arbitrary number of customer IDs. When the user presses the pushbutton, you should display a table of the customers, where the first column is the id and the next columns are the first name, last name, and balance. If there is no customer for a given ID, display it in the table with “Unknown” as the name and 0 as the balance. I have a method in CustomerUtils called getCustomerOrDefault that will simplify the customer info for unknown ids. Again, display the balances in one color (e.g., black) if they are positive and in another color (e.g., red) if they are negative. Again, use the org.json JSON-generation utilities.