

## CPRG352 - Web Application Programming

### Servlet Lab 1

#### Topic: Simple Servlets

#### Problem 1: A First Simple Servlet (to get started)

Create a Java web application called **MyFirstServlet**. Add a servlet to the project called **AboutMe** (in a package called **aboutme**). Edit the standard output produced by this servlet so that instead of the standard message it outputs the following:

My name is Adam  
I am a student in CPRG 352  
This is the first Java web application and servlet that I have created!

Customize the name shown to be your own name.

By default when run the project will show the output of the **index.html** page created with the project. Change the project settings to instead show the output of the servlet when the project is executed. The user should **not** have to edit the URL in the browser to see the servlet output.

## **Problem 2: Output a formatted HTML table**

Create a Java web application called **ShowTable**. Add a servlet called **ShowTable** (package name **showtable**) to the project. When run this servlet should output the following in the browser:

Table of numbers between 1 and 10	
Number	
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

The list of numbers in the table **must** be output using a loop, i.e. this is not just a hard-coded HTML table, it is generated by running Java code in the servlet.

Again, make the servlet the default object in the application, so its output is shown by default when the application is executed.

**Hint:** to determine the table cell background colour to use (light or dark), use the number being output...<sup>1</sup>

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<sup>1</sup> Odd or even?

### **Problem 3: Input to Servlet**

Create a Java web application called **AgeNextBirthday**, with a servlet called **CalcAge** (package **calcage**). When executed this application should show the following HTML form:

## Age next birthday

Enter your current age:

If the user clicks on the "**Age next birthday**" button without filling in a value in the text box then the user should see the message "***You must give your current age***" below this form, e.g.

## Age next birthday

Enter your current age:

You must give your current age

Note that the form output by **CalcAge** should also submit its data back to **CalcAge**, i.e. **CalcAge** is both showing the UI for this application, and processing the submitted data (if any).

If the user does fill in a value, e.g. **20**, and submits then the application should show the following:

## Age next birthday

Enter your current age:

Your age next birthday will be 21

Again, make sure **CalcAge** is the default object in the application.