Faculty of Science, Engineering and Technology

COS30045 Data Visualisation

Task 0.0 Technology Fundamentals - Set up Mercury Server

ILO	Create web-based interactive visualisations using real-world data sets.
Aim:	To view and test your web pages, you need a web server. Mercury (mercury.swin.edu.au) is a server provided by Swinburne that runs the Apache web server. Mercury is the web server we will be using to host all our web pages for your labs and assignments in this unit. In this task, you are going to setup your user account and then create and test our first web page on Mercury.
Resources:	All students in COS300045 have access to a mercury account. If you have trouble accessing your account ring Ext 5000.
To be marked as Complete your submission must:	Set up your user account on 'Mercury' - the University's Apache webserver Host a website on the server
Submission	No submission

Tip: If you have done COS10005 Web Development or COS10011 Creating Web Applications, you should already know how to do this. These notes are based on COS10005 Web Development LAB 01.

Overview

In this unit you will learn to use D3 to create web-based visualisations. D3 is a JavaScripting library that is used in conjunction with HTML and CSS. Therefore, before starting with D3 you will need to review the basics of HTML and CSS coding and setting up a server to run your web pages on. This Resource page is based on Lab 1 COS10005 Web Development to assist you to set up a web server to host the pages you develop for this unit.

Set up and test your user account on mercury

Step 1 : Log onto the Mercury web server and set up your account.

A web account is needed to load, test and run your web pages (HTML, CSS, JS). For this purpose, every student is assigned an account on the Mercury web server.

Note: Note: If you are using a MAC or Linux machine, you do not need putty, just open a terminal and use the built in ssh client like this:

```
ssh <username>@mercury.swin.edu.au
```

1.1 Use '**PuTTY**', a SSH (Secure Shell) client, (available on most lab computers under Start>Programs>Network), to log in to the Mercury web server. Its host name is mercury.swin.edu.au, as presented in Figure 1.

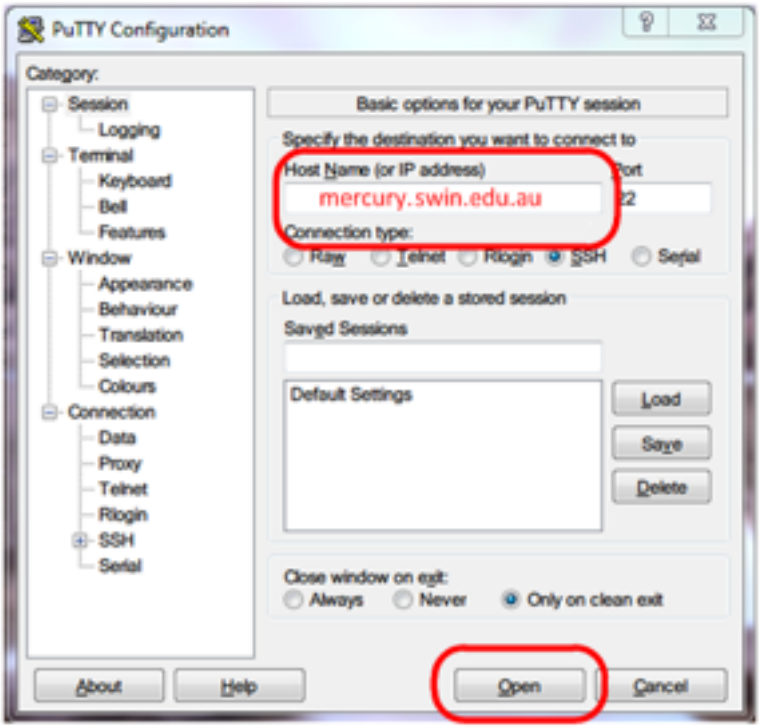


Figure 1. Accessing the Mercury Web Server

1.2 If the dialog presented in Figure 2 pops up, click on Yes.

Figure 2. PuTTY Security Alert

1.3 Now enter your Mercury username: `s<your Swinburne ID>`, (for example, s1234567) and your SIMS password, as presented in Figure 3. In PuTTY, the password you type would not be visible.

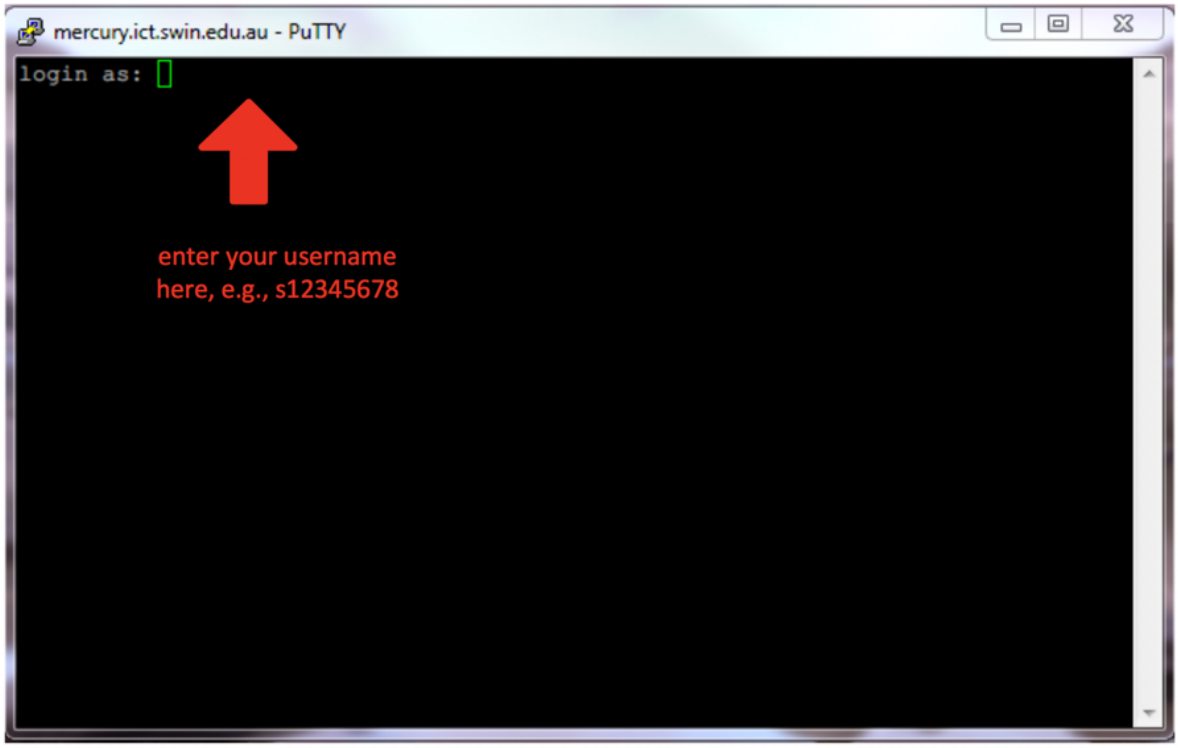


Figure 3. Entering Username

Step 2: Create a web page for testing.

Use a text editor on your local computer (e.g. NotePad++ for Windows users, Atom and Sublime Text for Mac users), create a file named "`myhtml.html`" and encode the following (alternatively you could use the code from Task 1.1):

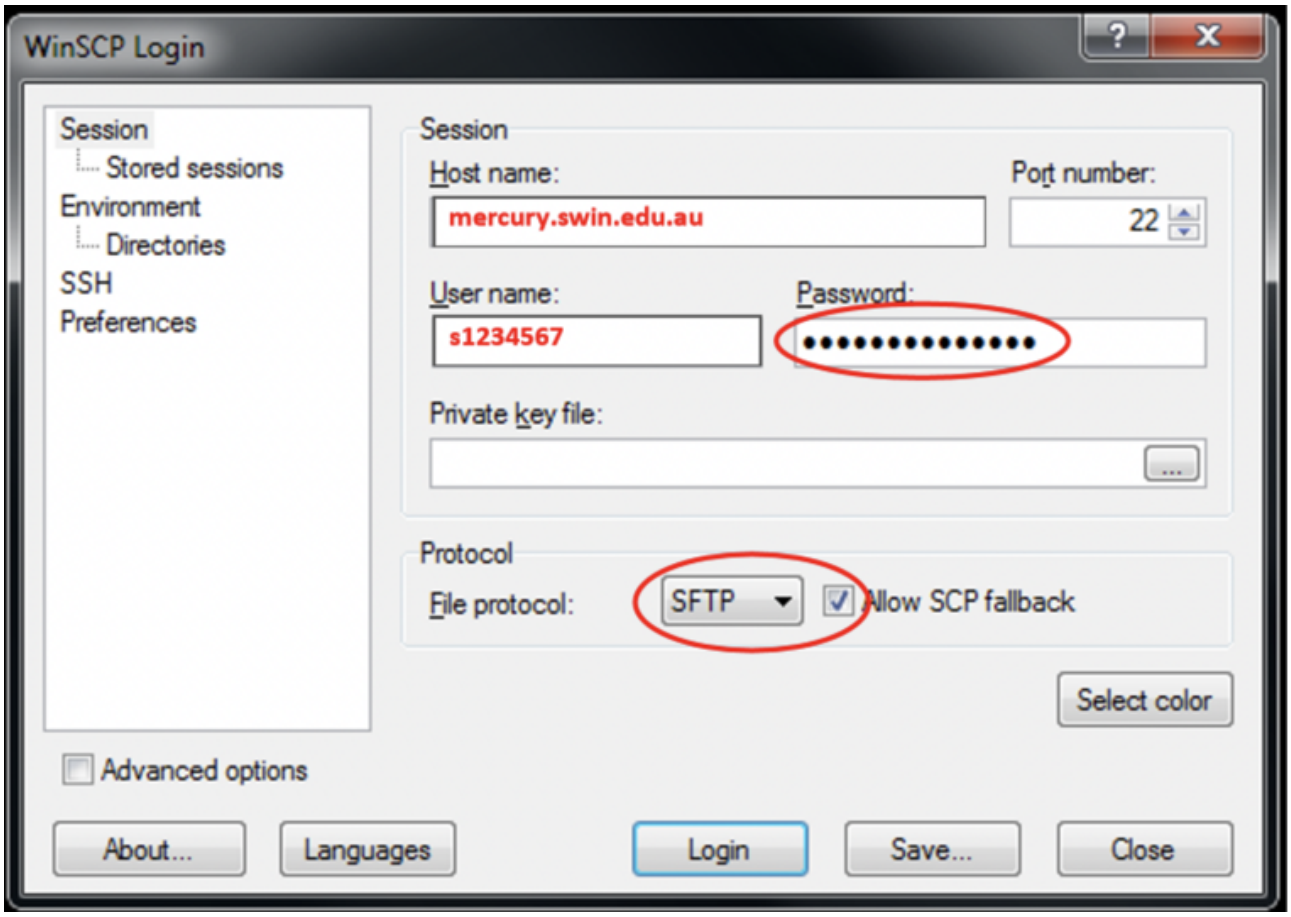
```
<!DOCTYPE html>
<html lang="en">
<head>
<title>My First HTML 5 webpage</title>
    <meta charset="utf-8">
    <meta name="description" content="Web development">
    <meta name="keywords"      content="HTML, CSS, JavaScript">
    <meta name="author"      content="your name">
</head>
<body>
    <!-- First HTML5 Example -->
    <h1>Web Development Lab01</h1>
    <h2>THIS IS MY FIRST WEB PAGE!</h2>
<h2>I DID IT!</h2>
<h2>I DID IT!</h2>
    <p>Wait. Can I use .htm instead of .html as my file extension?</p>
    <p><em>Give it a shot!</em></p>
</body>
</html>
```

Step 3: Access Mercury using WinSCP (or FileZilla for Mac users).

Note: Note: Mac uses can use Filezilla instead of WinSCP, available at https://filezilla-project.org/

To view and test a web page, you need to place it on Mercury properly.

Use 'WinSCP', a SCP (Secure Copy and Paste) file copy/transfer client, (available on most lab PCs under `Start>Programs>Network)`, to log in to Mercury, with the host name "`mercury.swin.edu.au`", user name `s<your Swinburne ID>` and your new Mercury password.



After a successful log in, you will the folder system of your local computer on the left the folder system of the Mercury server on the right. On the right, you will be able to see the unit folder "cos30045".

Step 4: Create a folder (directory) to contain your web page files.

It is strongly recommended that you create a folder for each lab and assignment.

Use WinSCP to access Mercury, create a folder/directory named "lab01" under `~/<your unit code>/www/htdocs` folder on Mercury.

> **Note**: Apache web servers are case sensitive. It is recommended that when naming files or folders you always use lower case and avoid non-alphanumeric characters, such as a space.

Step 5: Transfer your web pages to the web server.

To view and test your web pages, you must place the web page files into `~/cos30045/www/htdocs` folder on mercury or any of its subfolders.

Using WinSCP, drag and drop (or copy and paste) your file '`myhtml.html`' from your local computer to the `~/<your unit code>/www/htdocs/lab01` folder on the server.

Step 6: Test and view web pages through a browser.

To view your web page, use any web browser and type in the following address,

`http://mercury.swin.edu.au/<your unit code>/s<your Swinburne ID> /<folder>/<filename>`

Folder on Mercury Web Server	URL
`~/cos30045/www/htdocs`	http://mercury.swin.edu.au/cos30045/s1234567
`~/cos30045/www/htdocs/index.html`	http://mercury.swin.edu.au/cos30045/s1234567/index.html/index.html
`~/cos30045/www/htdocs/lab01/myhtml.html`	http://mercury.swin.edu.au/cos30045/s1234567/lab01/myhtml.html/

[IMPORTANT] When the browser authorization request dialog pops up, use your **SIMS username** and password to confirm access, **NOT** your mercury username and password.

Note:

- Step 1 is only done once. This is to setup your Mercury account and password.
- Steps 2 and 3 are performed every time you start a HTML/CSS/JavaScript development session.
- Steps 4 to 6 are performed repeatedly in sequence when creating, testing and debugging your HTML/CSS/JavaScript codes.