

CS1IAD: Client-Server Communication Lab

Learning Objectives

After completing this worksheet, you should be able to:

- Send HTTP requests from a web client to a server and process the response
- Upload a web page onto a server

Part 1 – Making an API Request

- Create a basic HTML page with a text box, a search button, an empty div with id *results*, and a javascript file linked.

Utilise the lecture notes, W3Schools and additional reading to make a simple [XMLHttpRequest](#) to the universities API, adding whatever the user has entered into the text field to the end of the API URL:

<http://universities.hipolabs.com/search?name=>

- In the response function, set the innerHTML of your results div to the response and search for Birmingham. You should get a list of results
- Parse the response list into individual *<a>* tags using the university URL for the href property,
- Use the university name as the text inside the tag

Test that the hyperlinks work and make any adjustments necessary – use breakpoints or console.log to debug any problems

Using an XMLHttpRequest to access an API

[University of Birmingham, United Kingdom](#)

[University of Halifax, Birmingham Campus, United Kingdom](#)

[University of Alabama at Birmingham, United States](#)

[Birmingham City University, United Kingdom](#)

[Birmingham-Southern College, United States](#)

Part 2 - Deploying your code to a Server

In order to have our website hosted on the internet, we need to deploy our website to a server. You will have received an email containing some credentials, so search your email for:

webmin@cs2410-web01pvm.aston.ac.uk

It should contain the following credentials.

Administration URL:

<https://cs2410-web01pvm.aston.ac.uk:10000>

User login: **u-SUN_NUMBER**

User password: **XXXXXXXX**

MySQL phpMyAdmin URL:

<http://cs2410-web01pvm.aston.ac.uk/phpmyadmin>

MySQL database: **u_SUN_NUMBER_db**

User login: **u-SUN_NUMBER**

User password: **XXXXXXXX**

Your website address will be:

http://SUN_NUMBER.cs2410-web01pvm.aston.ac.uk/index.html

2.1 - Upload your files to the host server:

Choose one of the following options:

1. **Administration URL:** <https://cs2410-web01pvm.aston.ac.uk:10000>,
 - **File Manager** ->upload / download files, manage database(s) (alternative option to using phpMyAdmin)
2. **SSH** to cs2410-web01pvm.aston.ac.uk for CLI
3. **SFTP or SCP** (connect to cs2410-web01pvm.aston.ac.uk, port 22)
 - suggested software (for Windows): **WinSCP**

phpMyAdmin

- Manage existing DB: Webmin -> Servers -> MySQL Database Server
- Create new DB and manage existing DB: Virtualmin -> Edit Databases

You could look up the [Virtualmin Virtual Server Owners Guide](#)

Check your website works by visiting your website address

For any issues, use the Discussion Board forum "cs2410-web01pvm server" on Blackboard

- Check you can access your webpage using your server address.