



RHODES UNIVERSITY
Where leaders learn

Computer Science 301

Web Technologies & Security

Practical 1: Week beginning 26 August 2024 [100 Marks]

Task 0

To access the practical files, each student needs to open up a file explorer (on windows) and open up the following link \\CS3-DEV\\Practicals\\{STUDENTNUMBER} and then find your own student number on the list. Alternatively, open your File Browser (on Windows), Click on **This PC**, then select on **Map network drive** and click on map network drive. You will then copy and paste the following link on the folder option and click finish:\\CS3-DEV\\Practicals\\{STUDENTNUMBER}.

The authentication for this is all handled via the domain. This is seamless if you are in the Hamilton labs. If you are outside Hamilton or using a private device you will need to use your domain credentials to access the share. So, follow the same process but when it comes to connecting to the server, un-tick **Reconnect at sign in** and tick on Connect using different Credentials. This will be done each time you want to access the web server that we are using for this course. When connecting outside Hamilton building, you will also need to add **ICT\\student_no** as username in order to access the server and use your ross or ruconnected password. **You cannot access the server if you are not using Eduroam or on Rhodes network.**

Please be aware that the Practicals & <foldername> are both case sensitive. Each student is limited to access only their folder which is labeled by student number and the group folder name. Inside your folder you find a file labeled **index.html**. This will be the file that you will be working with for this practical. To run the file just double click the file and it will show you its contents. To edit the file, right click and use your preferred text editor to make changes to the file.

Task 1

By now you should have decided what kind of website you and your team want to build. If you are in the same team you can share your files but make sure that each in the team has defined roles on this project you are about to embark on. Note that this will be one of the 5 practicals that are built together to come up with one complete, secure and functional Website. In your planning ahead, consider how your choice of website is going to accommodate CSS, JavaScript and MySQL Database. But for this week our main focus is HTML.

You are expected to perform the following tasks (not arranged in any order) in HTML:

1. Add a header and a footer to your index.html file. Your header should suggest or give an idea of what your project is about. Your footer should at the very least contain copy rights and the authors contact details.
2. Your website is expected to have tabs (e.g Home, About, Contact etc.). In the About us tab, add a photo of each member followed by a brief description of that member and their set of skills to "your organisation". In your paragraphing style make use of the
 tags. Your home pages should explain what your organisation is about.
3. Make sure that your tabs are fixed and that when you click on About us for example, only the contents of the page should change without affecting the main menu. In other words, make sure you use the navigation attribute to link your home page to the rest of the tabs.
4. In your web page, integrate Absolute and Relative URLs
5. There are at least 80 HTML Tags, make sure that your website has at least 10 different HTML Tags that work coherently. **You will by default use some already so do not sweat too much if they are not enough. Just make sure they are coherent.**
6. There are at least 100 HTML attributes, make sure that your website has at least 10 different HTML attributes that work coherently. **You will by default use some already so do not sweat too much if they are not enough.**
7. Your website should have HTML forms (at least 2), HTML Lists (ordered, unordered and description lists), HTML Tables (at least 2) and File paths (at least 3). What you put in these Tables and file paths is up to you. Do consider that you will add a database to this website in your prac 4. Chances are these tables will become your database tables.
8. In your styling of your page make sure that at least five colours are accommodated. This should be done in HTML. It should also accommodate at least four different styles. For instance, there should be colour, text alignment, different font sizes etc. HTML Styles offer a lot on this.
9. Your website should have HTML Plug-ins, Video, a link to social media or YouTube.
10. At this point do not worry too much about how your website is looking as long as you have the features in place you are fine. Remember that you will make more changes to your website using CSS (mostly for styling) and JavaScript. You are working as a team, make sure that you split on the roles.
11. Add a login form or page where users can get registered and log in.
12. Every site has a place where users/customers can give feedback regarding the product offered. Add your own review section or page. At the moment it is just a placeholder.
13. <https://www.w3schools.com/html/> - This link plus many others have nice explanations on how to do most if not all of the things that you are expected to do in this practical. Make use of it.
14. You will submit your index.html file on reconnected so that your tutors can mark it. If you have used more than one file, make sure to zip them before submission.
15. In your Prac 2, I will walk over to see your work and you will demonstrate how you have implemented your ideas to come up with a coherent website.
16. **Additional points will be allocated for creativity and use of functions or attributes not directly stated. In essence, if you follow all of this your best mark will be 80%. 20% has been left for grabs for initiative (read creativity). Make sure you comment this clearly in your file so that your tutors can see it and award you the marks. Inform them of your additional features**