Unit 3: Website Technologies

# Assignment 4: PHP, MySQL & Security

Crystal Mason

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| Date issued: | 14/05/18 | To be completed by : | 28/05/18 |

# Context of the assignment

Fasthosts is the UK’s foremost web hosting company. They have delivered market-leading online services to the home office and SME markets since 1999 and have a successful track record in providing high value, award winning products.

Innovation drives their business: they have been designing new ways to give their customers complete control of the Internet since their inception in 1999. They employ over 200 staff now in the UK and continue to grow and innovate. © Fasthosts.

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| Grading criteria: | **P9** | Use server-side scripting elements to add dynamic content to a selected website. |
|  | **P10** | Create and use a bespoke server-side scripted function to solve a set task. |
|  | **P11** | Use server-side scripting to query data in a relational database system. |
|  | **P12** | Use server-side scripting to manipulate data in a relational database system. |
|  | **P13** | Identify four common client-side threats. |
|  | **P14** | Identify four common server-side threats. |
|  | **M8** | Enhance a simple website by adding server-side validation and processing to its form-based content. |
|  | **M9** | Create and use a bespoke server-side scripted class to solve a set task. |
|  | **M10** | Apply suitable measures to protect against a client-side threat in a selected website solution. |
|  | **M11** | Apply suitable measures to protect against a server-side threat in a selected website solution. |
|  | **D4** | Interpret threat analysis data and justify which attack vectors pose the most vital threat to website integrity and data security. |

# Scenario

Fasthosts launches new TLDs (Top Level Domains) on a regular basis and you are working for them as a Junior Developer.

As part of your role you are required to design, create and deploy a standalone website that displays the schedule of new TLD releases and can collect information from potential new customers so that they can be informed when the TLDs they are interested in become available.

This assignment will require you to allow users to search for individual TLDs by keyword and allow users to see the status of TLDs they have requested.

# Tasks - All tasks must be undertaken

Task 1

*This task will provide evidence for P9, P10, P11, M9*

Using PHP, you are to alter the TLDs page of your website to display a list of TLDs gathered from a relational database created using MySQL, see design documentation in Appendix B. Your page(s) must include the following:

* Search functionality
* A TLD class

Task 2

*This task will provide evidence for P12, M8*

Using PHP, you are to alter the registration page to allow users to request TLDs and then allow them to search at a later date to see the status of their requests. Your page must include the following:

* Server-side validation and processing of the request form
* Storage of a user’s request to a database
* Allow a user to edit a request

*A user doesn’t have to log in to edit a request; this feature will be added by Fasthosts upon implementation.*

Task 3

*This task will provide evidence for P13, M10*

In your report you must identify four common client-side threats.

You must then select a threat and apply measures to protect against it on the Fasthosts TLD website.

You will demonstrate the client-side threat that you have protected against and what measures you put into place.

Task 4

*This task will provide evidence for P14, M11*

In your report you must also identify four common server-side threats.

You must then select a threat and apply measures to protect against it on the Fasthosts TLD website.

You will demonstrate the server-side threat that you have protected against and what measures you put into place.

Task 5

*This task will provide evidence for D4*

Add to your report an interpretation of threat analysis data and justify what types of attacks are the most vital threat to website integrity and data security. You must provide evidence of where you found your data.

# Reminder

Proof read your work to ensure you’ve met the requirements of each criterion.

You must submit your code and report to Canvas.

Your functionality will be assessed in a demo.

# Submission sheet

Learner name: Patryk Tomaszewski

Actual submission date: 04/06/2018

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| Evidence checklist | | File name/page number |
| Task 1 & 2 | An archive containing the previously created website with the addition of the commented PHP files. | Code |
| Task 3, 4 &  5 | A report containing annotated screenshots and referenced research analysis. | Assignment. |

# Learner Authentication

I confirm that the work and/or the evidence I have submitted for this assignment is my own. I have referenced any sources in my evidence (such as websites, text books). I understand that if I don’t do this, it will be considered as a deliberate deception and action will be taken.

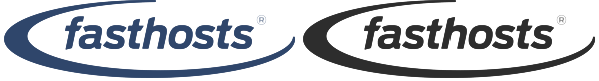
Learner signature: Tomaszewski Date: 04/06/2018

# Appendices

Appendix A

*Fasthosts Design Guidelines*

*Logo*



*Brand colours*

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| #FFFFFF | #EEEEEE | #0099FF | #0062A0 | #2F466B | #2D2D2D |

*Fonts*

Arial, Helvetica, sans-serif

*Linking structure*

Home

Top Level Domains

Register Your

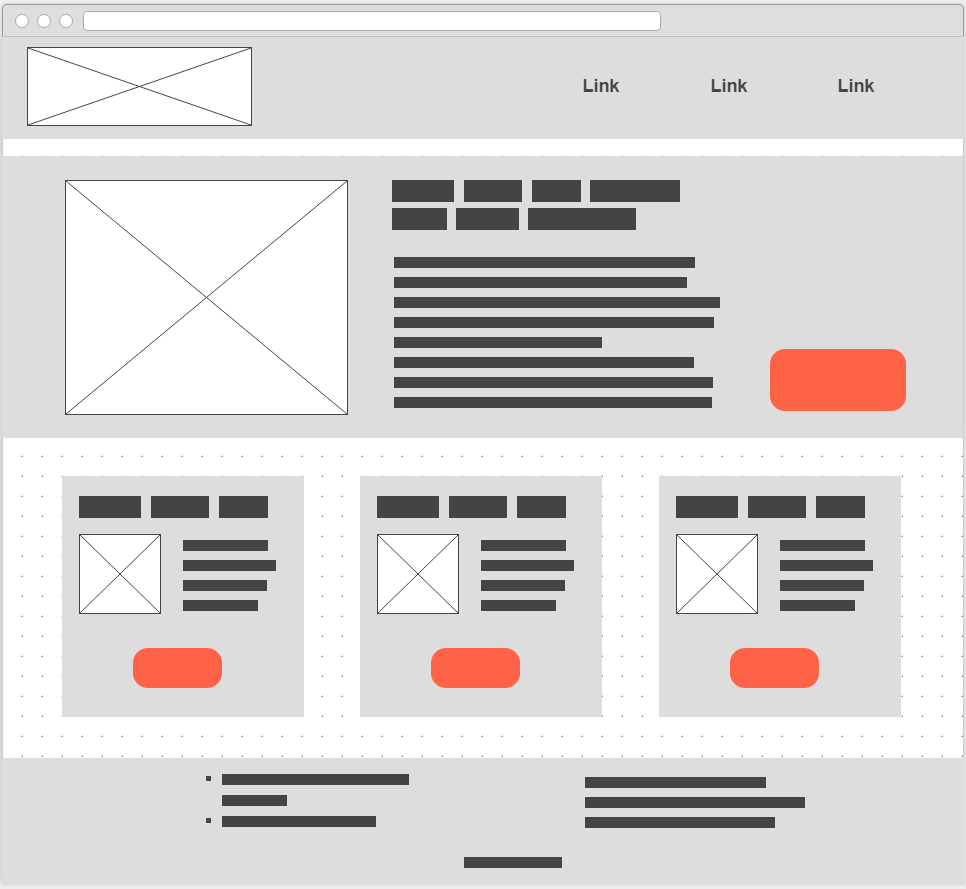
Interest

About Fasthosts

Site Map

What is a top level domain?

*Wireframe*



Logo

The header is to remain consistent across each page

The main content section

- should be changed appropriately for each page. This is a sample layout for the homepage.

The footer is to remain consistent across each page and contain quick links to each page, contact details and copyright information.

Appendix B

*Fasthosts Database ERD*

## requests

email\_address *VARCHAR(128)* telephone *VARCHAR(13)* first\_name *VARCHAR(50)* last\_name *VARCHAR(50)* request\_date *DATE*

domain\_id *INT*

## domains

suffix *VARCHAR(20)* status *VARCHAR(50)* price *DECIMAL(5,2)*