

COMP20030 - Web Design - Project

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Introduction

For my Web Design project I decided to build an online store for selling second hand bikes called “**BuyMyBike**”. I built the site using the PHP framework Laravel. I also utilised the CSS/JavaScript framework Bootstrap to make the site mobile friendly. I also wrote some custom JavaScript, CSS and HTML, beyond my own PHP changes to the Laravel framework.

Project Aims

As a hobbyist cyclists I felt that there was a lack of online resources to sell bikes online in Ireland. Outside of general online marketplaces such as eBay or DoneDeal I felt that a more bike focused one was needed.

I decided to make an online marketplace that users could use to purchase bikes. It is relatively simple due to time restrictions however it still includes some functionality. It has user accounts which allows logged in users to see all the products sold on the site (i.e. a site admin), a “checkout” system where the user is asked to fill out their credit card information and then buy the bike (NOTE: no card information is store on the site or in the databases).

Running The Source Code

Laravel requires some custom server settings for running it. Some common solutions are to run a virtual machine and then run **Laravel Homestead**, however for this project I have hosted the site online with **Heroku**, an online web hosting service to save time setting up a custom server to run the project.

Site: <http://buy-my-bike.herokuapp.com/>

All files edited and how to access them is described below. All the source code has been provided in the **Source Code** folder in the GitHub repo or in the zipped folder.

Using Laravel / Bootstrap

I work part time as a freelance Web Developer so I have a lot of experience working with web technologies such as HTML, CSS, JavaScript and PHP. My main language of focus is PHP and I’ve been working with the Laravel framework for about three years now. As I’m comfortable working with these technologies I felt that utilising them would make for a much better end project, both in terms of functionality and in appearance, then if I choose to build a website from scratch.

Laravel handles a lot of the repetitive parts of web development out of the box such as user accounts, routing and security. Laravel utilises the MVC method which stands for “*Model*

View Controller". The model handles most data driven tasks, the views handle the user interface and the controllers handle user input.

Important Files / Directories

routes/web.php handles all routing for the site

app/Http/Controllers stores most of the controllers for the application

database/migrations stores the files used to setup the database

resources/views stores all the view files which handle the user interface. *NOTE:* these files are labeled with a *blade* format, i.e. **view.blade.php** these are essentially normal PHP files with some shorthand syntax for easier conditional statements.

```
@foreach($sales as $sale)
    <h4>{{ $sale->name }}</h4>
    <h6>Amount: {{ $sale->amount }}</h6> <br>
@endforeach
```

A PHP foreach in blade syntax

Work Completed

In order to keep track of all the files I have either written or edited myself, I kept track of my progress with the project on my GitHub account. You can visit the repo

<https://github.com/ciaranpflanagan/buy-my-bike>. I have also compiled a list of the files changed or edited by myself for the project, this file is called **changes.txt** and can be found in the **docs** folder in the root directory of the git repo and the source code.

Frameworks Used

Laravel (PHP Framework): <https://github.com/laravel/laravel>

Bootstrap (CSS/JavaScript Framework): <https://github.com/twbs/bootstrap>

Source Code: <https://github.com/ciaranpflanagan/buy-my-bike>

Site: <http://buy-my-bike.herokuapp.com/>