**Astronomy Equipment Sales Website**

**Iteration One - Initial Prototype Specification**

**Second Semester Project**

**Computing year 2  
Group 2B2**

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# Design and Development Methodology

Due to how this project is organised we found it was ideally suited to using Agile methodologies for design and development of the website. As a Scrum team, Agile allowed us to break the tasks for this iteration into three one week periods for the duration of the time allowed.

At the beginning of week one of this iteration we were able to implement the basic template for how the website is to look and carried out our first Sprint planning meeting in which we met on Microsoft Teams and decided between ourselves the organisation of the work to be done. The most critical functionality was carried out in the first Sprint and then the next meeting we reviewed our Sprint and our backlog and planned for the next Sprint.

For this iteration we focused more on having the core functionality like user accounts, online shop with card and ensuring that order history was fully functional, while the final user interface design is not decided on yet. During the next iterations, adding new functionality we will modify and improve the look and feel of the website prototype.

# Iteration One Functionality

For the project as a whole and consequently for iteration one, our team set out ambitious goals for the quantity of functions we wished to create and we believe we achieved these goals.

## Pages/Basic Design

The first step was creating the home page including a basic design, a background and a navigation bar with the pages app.

## Add/Update/Delete

One of the fundamental requirements of iteration one, we successfully implemented add/update/delete functionality and tested.

## User Accounts

New users have the ability to create user accounts. Returning customers have the ability to sign in, sign out and view their order history.

## Database (Category/Product)

The foundation of the shop app is the database and we deemed it important to have a small database of categories and products allowing us to test the functionality of the shop and build on other core apps such as cart, order, voucher. We added a small amount of basic styling which will be elaborated on further along.

## Shop

For this functionality we have the categories and products which are added through the admin page.

From the shop the user will see all our products and categories and can further the purchase process by adding items to cart.

## Cart

The cart app allows customers to review the items that they have already added to cart, and they can add or remove the quantity of items. Cart also allows customers to apply voucher codes at checkout for a discount and finally they can go through the payment by entering their card details for the checkout.

## Order

The order app is the functionality that allows the registered customer to view their past purchases.

## Voucher

As mentioned in the cart section, we implemented a voucher feature allowing the entering of voucher codes at checkout to receive a discount. This app was also tested for bugs and errors.

# Issues or Problems Encountered

We had a small issue at the beginning of the project, where we created superuser accounts first and after that we created a Custom User model. That resulted in a database problem, we had to delete from the database our admin accounts, migrate the database to use a new model and recreate admin accounts. Besides a few typos we didn’t encounter any other problems.

# Testing

We performed a number of tests using Selenium IDE alongside manual tests carried out when new functionality was implemented or when an existing functionality or user interface modified.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test Case Matrix** | | | | | |
| **Test Case No** | **Test Case Name** | **Input** | **Expected Outcome** | **Actual Outcome** | **Result (Pass/Fail)** |
| 1 | Sign up | Username: Test01  Email: test01@gmail.com  Password: T123456t  Confirm Password: T123456t | Your account has been successfully created | Your account has been successfully created | Pass |
| 2 | Login | Username: Test01  Password: T123456t | Login to the home page. WELCOME, TEST01 | Login to the home page. WELCOME, TEST01 | Pass |
| 3 | Wrong password | Username: Test01  Password: t234234 | Please enter a correct username and password. Note that both fields may be case-sensitive. | Please enter a correct username and password. Note that both fields may be case-sensitive. | Pass |
| 4 | Add Product (Telescope) to cart | Add test\_scope to cart | Test\_scope added to shopping cart | Test\_scope added to shopping cart | Pass |
| 5 | Remove product from cart | Remove test\_scope from shopping cart | Your shopping cart is empty | Your shopping cart is empty | Pass |
| 6 | Apply voucher | Code: k123456m | Applied "k123456m" voucher (10% off) | Applied "k123456m" voucher (10% off) | pass |
| 7 | Order | Email: [x00167381@mytudublin.ie](mailto:x00167381@mytudublin.ie)  Card Number: 4242424242424242  Expired date: 04/2024  CVC: 424 | Thanks for placing your order.  You order number is: 5 | Thanks for placing your order.  You order number is: 5 | Pass |
| 8 | Order History | Go to Order History page | Order Number: 5  Order Date: 02 Mar 2021  Total Amount: 1500  Status: Complete  Action: View order | Order Number: 5  Order Date: 02 Mar 2021  Total Amount: 1500  Status: Complete  Action: View order | Pass |
| 9 | Out Of Stock | Buy all the items from any product that we have in the shop. | Show us in the shop this product Out Of Stock | Show us in the shop this product Out Of Stock | Pass |