

ZEIT3119 Web Development and Security Project 1 – Front End Web Page

Group Members:

Database Architect and JavaScript Director: Robert Clappis – z5308172

HTML/ CSS Director: Harper Cahill – z5308054

Administrator/ Document Director: Tian Kingsbury – z5265513

Project Plan:

- 03 March 22 - Sorted Group/ Roles
- 23 March 22 – Group Meeting to facilitate the production of the website, roles and tasks were delegated.
- 05 April 22 – Research and Design completed in respective areas and development to have begun.
- 12 April 22 – Pages to have been created, database and tables to have been created.
- 26 April 22 – Style.css to have been completed and database populate. Report to have been 50% completed.
- 03 May 22 – Queries to be completed and report to be 75% done. Testing to commence.
- 06 May 22 – Testing to have been complete.
- 08 May Report to be completed.
- 09 May Project to be submitted.

Robert – Database Architect and JavaScript Director

Robert's focus was ensuring design, create and populate the database. Another focus was to write and execute queries to give the website functionality. The creation of the database had a flow on effect of ensuring Harper's job was more efficient. The creation of database was with JavaScript, this was used as it was described in the rubric.

Harper – HTML/ CSS Director

My focus has been on the development and refinement of the structure and the design of the web pages, this being the HTML and the CSS. Harper also focused on achieving dynamic effects, being reactionary buttons and divisions, either changing colour of the button, or adding a box-shadow to a division, creating a 3D effect. Additionally, Harper oversaw gathering and implementing the necessary images from the Facebook marketplace on which the website is based, and other images from online.

Tian - Administrator/ Document Director

My focus has been the creation of the group documentation, ensuring the layout is fit for submission. The coordination of the group report is completed, and the other two members have completed their respective roles before the due date. Also, to have a greater understanding of the website to detail it throughout the report.

Target Audience/ Purpose:

The website was developed to fill a large request from trainee officers (TOs) at the Australian Defence Force Academy to create an ecommerce website where TOs could buy or sell their preloved valuables. The current marketplace of a Facebook group was not being utilised and items were being lost in the abundance of posts. By creating a central location in the form of an ecommerce website it will reduce the issues associated with the Facebook group. The website has been highly attractive to the trainee body and has potential to be utilised with the proper means.

Methodology:

We used the waterfall development method; this method is rigid and allows a sequence to be followed. The sequence is determining the project requirements and scope, analyse those requirements, design, implement, test and deploy.

The methodology of this development has been through multiple steps. As a group we discussed a rough sketch of the website, the rough sketch detailed each page and the information required for it. This ultimately developed the navigation bar for the website and set aims to what we should have on each page. For example, the contact page has information about location, a map, contact information and working hours. Following the sequence this completed the project requirements and scope.

The next phase was analysing the requirements, we decided as a group to analyse the current platform and investigate a current ecommerce website that is efficient. We analysed as a group the issues associated with the Facebook group, we found that the congestion was too much, there was no organisation, no structure, and no overreaching body. Contrasting this with a current ecommerce website Adidas, we analysed that the website was more thorough and had multiple options for customers. The images on the website were more effective in showcasing the item for sale.

The design fell to Harper and Robert, they decided to mirror most ecommerce websites in the navigation bar. With the rough sketching completed earlier as a group, we already had a design model. This phase was relatively easy for the two members to work through, just gaining images from the current platform and forming the website. The implementation was mainly completed by Harper in executing all the code.

The testing phase was completed by myself and Robert, we added items to the cart and fault founded a few errors which were fixed. We then asked another TO to experience the website and ensure that it worked efficiently.

Description of Content/ Structure:**Home Page:**

The home page has a basic website structure, an eye-catching image located on the right. A simple blurb of website, for the user to understand the purpose of the website. The shop now button that directs the user to shop page. The five icons which indicate information about the store, free shipping, online order, save money, promotions and 24/7 support. Lower on the home page we have the featured section which shows the most popular items from the current page which draws the user in. The next section is items that are free for customers. Next is a section that links new arrivals to the academy shop and the information about them. The newsletter section which will notify the shopper of all offers and events for the store. The last section is the key information for the shop.

Shop:

The shop page has all the items on the website, it has each item posted and if a customer clicks on said item, it will open. For example, a Yamaha FZ6R – Lams Approved has the sub section of a vehicle, has the title of the item, the price, size, button to add to cart, product details with the blurb the seller have written. Further down, the customer will be able to see the featured items from the shop like the home page. The last section of the page is the same as the home with the option to sign up to the newsletter and the key information of the store.

About Us:

This page has key information the user might be interested in, with key questions and answers. With hyperlinks to various other sections of the website such as contact information and the shop section. The next section of the page has the author information with names, images, role, and contact information. With the exact same bottom section with newsletter and key information about the shop.

Contact:

Has the details of the store and the location of the store on a map for the customer. A section in which the user can leave a message for us, with the section being name, email, subject, and a section for the message. With a submit button for the message to be sent through to the development group. With the final section being the newsletter and key information about the shop.

Deals:

This page has key information about deals the user might be interested in, with key questions and answers. With hyperlinks to various other sections of the website such as promotions and section for compassionate reasons. The next section of the page has the author information with names, images, role, and contact information. With the exact same

bottom section with newsletter and key information about the shop. The layout and structure of the deals section is the exact same as the contact section.

Shopping Cart:

The final page is the cart where the customer can see what they have purchased. It comes up with a remove function, image, product, price, quantity, and subtotal. The next section is the coupon section with the apply function. The cart total that details the total cost of the purchase with a sub section on shipping. Finally, the key information of the shop.

Explanation of Code:

The first and arguably most important page of the website is homepage.html. This page is the first users see and also contains the code that implements the navbar.

```
13 <body>
14
15 <section id="header">
16 <a href="#"></a>
17
18 <div>
19 <ul id="navbar">
20 <li><a class="active" href="homePage.html">Home</a></li>
21 <li><a href="shop.html">Shop</a></li>
22 <li><a href="about.html">About</a></li>
23 <li><a href="contact.html">Contact</a></li>
24 <li><a href="promotions.html">Deals</a></li>
25 <li><a href="signUp.html">Sign Up</a></li>
26 <li><a href="cart.html"><i class="fa-solid fa-bag-shopping"></i></a></li>
27 </ul>
28 </div>
29 </section>
```

It also includes a function that display a scrollable user interface through different products.

```
<!--Potential to use a scrollable function to introduce arrow keys that will allow the user to click through the list rather than scroll-->
<section id="product1" class="section-p1">
  <h2>Featured Pre-Loved Products</h2>
  <p>The best of the Corps' second hand items</p>
  <div class="pro-container">
    <div class="pro">
      
      <div class="des">
        <span>Molly Esmonde</span>
        <h5>Brooks Glycerin 19</h5>
        <div class="rating">
          <i class="fas fa-star"></i>
          <i class="fas fa-star"></i>
          <i class="fas fa-star"></i>
          <i class="fas fa-star"></i>
          <i class="fas fa-star"></i>
        </div>
        <h4>$188</h4>
      </div>
      <a href="product1.html"><i class="fa-solid fa-cart-shopping"></i></a>
    </div>
  </div>
```

There are further html files for each page of the website. This includes about, cart, contact, shop, signUp, and several product html files. All aesthetic functionality is contained in the one style.css file.

This file is responsible for how the website looks to the user as well as how the user interacts with the website.

```

5   button.normal {                                116 #her MDN Reference
6       font-size: 20px;                            117 background-image: url("img/hero.png");
7       font-weight: 600;                            118 background-color: #E3E6F3;
8       padding: 15px 30px;                          119 height: 90vh;
9       color: #000;                                  120 width: 100%;
10      background-color: #fff;                       121 background-size: contain;
11      border-radius: 4px;                           122 background-repeat: no-repeat;
12      cursor: pointer;                              123 background-position: top 25% right 0;
13      border: none;                                  124 padding: 0 80px;
14      outline: none;                                 125 display: flex;
15      transition: 0.2s ease;                         126 flex-direction: column;
16  }                                                  127 align-items: flex-start;
17  }                                                  128 justify-content: center;
18  }                                                  129 }

```

```

188 #feature .fe-box:nth-child(1) h6 {
189     background-color: #438ec8;
190 }
191 #feature .fe-box:nth-child(2) h6 {
192     background-color: #a73120;
193 }
194 #feature .fe-box:nth-child(3) h6 {
195     background-color: #146b54;
196 }
197 #feature .fe-box:nth-child(4) h6 {
198     background-color: #8f211d;
199 }
200 #feature .fe-box:nth-child(5) h6 {
201     background-color: #0089fb;
202 }
203

```

```

--
-- Table structure for table `product`
--

DROP TABLE IF EXISTS `product`;
CREATE TABLE IF NOT EXISTS `product` (
  `prd_id` int(11) NOT NULL AUTO_INCREMENT,
  `prd_product_id` int(11) DEFAULT NULL,
  `prd_brand_id` int(11) DEFAULT NULL,
  `prd_status` varchar(100) DEFAULT NULL,
  PRIMARY KEY (`prd_id`),
  KEY `prd_product_id` (`prd_product_id`),
  KEY `prd_brand_id` (`prd_brand_id`)
) ENGINE=MyISAM DEFAULT CHARSET=latin1;

```

Next is the server.js file. This is responsible to how the user uses the website and its functionality. The server.js file establishes a connection to a database as well as executes queries such as add/removing to and from the shopping cart, creating a user account, and submitting reviews to the website.

```

1  const express = require('express');
2  const admin = require('firebase-admin');
3  const bcrypt = require('bcrypt');
4  const path = require('path');
5
6  var admin = require("firebase-admin");
7
8  let serviceAccount = require("ecom-project1-firebase-adminsdk-kbtby-c6c2811f15.json");
9  const { EnumValueDescriptorProto } = require('protobufjs/ext/descriptor');
10
11  admin.initializeApp({
12    credential: admin.credential.cert(serviceAccount)
13  });
14
15  let db = admin.firestore();
16
17  let staticPath = path.join(__dirname,);
18
19  const app = express();
20
21  app.use(express.static(staticPath));
22  app.use(express.json());
23
24  app.get("/", (req, res) => {
25    res.sendFile(path.join(staticPath, "homePage.html"));
26  });
27
28  app.get("/signUp", (req, res) => {
29    res.sendFile(path.join(staticPath, "signUp.html"));
30  });
31
32  app.post('signUp', (req, res) => {
33    console.log(req.body);
34
35    db.collection('users').doc(email).get()
36    .then(user => {
37      if(user.exists) {
38        return res.json({ 'alert': 'email already exists' });
39      } else {
40        bcrypt.genSalt(10, (err, salt) => {
41          bcrypt.hash(password, salt, (err, hash) => {
42            req.body.password = hash;
43            db.collection('users').doc(email).set(req.body)
44            .then(data => {
45              res.json({
46                name: req.body.name,
47                email: req.body.email,
48              });
49            });
50          });
51        });
52      }
53    });
54    res.json('data recieved');
55  });
56

```

```

56 })
57
58 app.get('/404', (req, res) => {
59   res.sendFile(path.join(static, "404.html"))
60 })
61
62 app.use((req, res) => {
63   res.redirect('/404');
64 })
65
66 app.listen(3000, () => {
67   console.log('listening on port 3000.....');
68 })

```

Other functionality includes the both the shop.js and homepage.js files. These files include such functions as the ability to submit star rating reviews on individual products in real time, as well as locked scrolling navbar and hover over blurred image collage feature.

```

1  let RatingStarInput = [...document.querySelectorAll('rating-star')];
2
3  RatingStarInput.compareDocumentPosition((star, index) => {
4    star.addEventListener('click', () => {
5      for(let i = 0; i < 5; i++){
6        if(i <= index){
7          ratingStarInput[i].src = 'img/fa-star.png'
8        }else{
9          ratingStarInput[i].src = 'img/no-fa-star.png'
10       }
11     }
12   })
13 })
14
15 window.addEventListener('scroll', () => {
16   if(scrollY >+ 180){
17     navbar.classList.add('bg');
18   }else{
19     navbar.classList.remove('bg');
20   }
21   console.log(scrollY);
22 })
23
24 const collageImages = [...document.querySelectorAll('.collage-img')]
25
26 collageImages.map((item, i) => {
27   item.addEventListener('mouseover', () =>{
28     collageImages.map((image, index) => {
29       if (index != i){
30         image.style.filter = 'blur(10px)';
31         item.style.zIndex = 2;
32       }
33     })
34   })
35   item.addEventListener('mouseleave', () => {
36     collageImages.map((image, index) => {
37       image.style = null;
38     })
39   })
40 })

```

Screenshots of Website:







