

COSC 304: Introduction to Databases
Final Lab
WildFire Solutions - BCWS Tool Shed



Instructor: Dr. Ramon Lawrence

Group members:

Blake Ablitt

Tanner Dyck

Mackenzie Kudrenecky

Logan Gilroy

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Mission Statement

Streamlining the delivery of wildfire equipment.

Executive Summary

At Wildfire Solutions we believe in everyone's right to protect their home, belongings, and family against unpredictable and ruthless wildfires. With that being said, wildfire crews on the front lines need the proper equipment to successfully keep our communities safe. Welcome to Wildfire Solutions website, a resource for wildfire fighters across British Columbia to order all desired supplies under one umbrella. Users will have an opportunity to select products from 8 different categories and place orders to their desired address for shipping purposes. Product examples from these categories include, but are not limited to a Fire Rake or Shovel within our hand tools selection; as well as Baby Wipes and Jack's New England Clam Chowder within our essentials selection. Users of the website will need to login or create an account upon opening the homepage. To create an account, the user will need to supply their personal contact information as well as their address and finish off by creating a user ID and password in which they can log in during future sessions. Creation of an account will provide access to additional pages within the website that non users are unable to access, along with simplifying the checkout process in which users will not need to re enter their login information.

System Features

| Final Overall System Features | Category | Possible Points | completed | Comments / Code Files |
|---|----------|-----------------|-----------|--|
| Documentation (10 total points) | | | | |
| Executive Summary (up to 1 page) | Core | 2 | ✓ | |
| System Features (2 pages) | Core | 2 | ✓ | |
| Walkthrough with screenshots (up to 15 pages) | Core | 6 | ✓ | |
| Hosting (10 total points) | | | | |
| Running on cloud server | Advanced | 10 | | |
| Main/Home Page (up to 14 total points) | | | | |
| Search for a product by name | Core | 1 | ✓ | listprod.jsp |
| Browse products by category | Core | 1 | ✓ | listprod.jsp |
| List products (by search/browse) | Core | 1 | ✓ | listprod.jsp |
| List products with image | Core | 1 | ✓ | product.jsp |
| Page header with menu | Basic | 1 | ✓ | index.jsp |
| Page header shows current logged in user | Basic | 1 | ✓ | |
| Dynamic products on page based on sales | Basic | 2 | ✓ | index.jsp |
| Improved UI (user-friendly, images, etc.) | Basic | 2 | ✓ | Added background |
| Product recommendation based on user | Advanced | 4 | | |
| Shopping Cart (up to 8 total points) | | | | |
| Add to shopping cart | Core | 1 | ✓ | listprod.jsp, product.jsp |
| View shopping cart | Core | 1 | ✓ | listprod.jsp, product.jsp (add to cart takes to viewcart) |
| Update quantity (with data validation) | Basic | 1 | | |
| Remove item from shopping cart | Basic | 1 | | |
| Improved formatting/UI (e.g. in header bar) | Basic | 1 | | |
| Cart stored in database between sessions | Basic | 3 | | |
| Checkout (up to 9 total points) | | | | |

| | | | | |
|---|----------|---|---|---------------------------|
| Checkout with customer id | Core | 1 | ✓ | |
| Checkout with payment/shipment info | Basic | 2 | | |
| Checkout with data validation | Basic | 2 | | |
| Multiple shipments per order supported | Advanced | 2 | | Note: Requires DB change. |
| Calculate taxes/shipping (by items/state) | Advanced | 2 | | Note: Requires DB change. |
| Product Detail Page (up to 2 total points) | | | | |
| Product detail page and item description | Core | 1 | ✓ | product.jsp |
| Product detail has an image from database | Core | 1 | ✓ | product.jsp |
| User Accounts/Login (up to 12 total points) | | | | |
| Create user account page | Basic | 2 | ✓ | createuser.jsp |
| Create account with data validation | Basic | 2 | ✓ | createuser.jsp |
| Edit user account info (address, password) | Basic | 2 | | |
| Login/logout | Core | 1 | ✓ | |
| Register user/Forgot password email | Advanced | 4 | | |
| Page listing all orders for user | Core | 1 | ✓ | customer.jsp |
| Product Reviews (up to 5 total points) | | | | |
| Ability to enter a review on a product | Basic | 2 | ✓ | product.jsp |
| Display product review on product detail page | Basic | 1 | ✓ | product.jsp |
| Restrict to one review per user on item purchased | Advanced | 2 | ✓ | product.jsp |
| Warehouses/Inventory (up to 5 total points) | | | | |
| Display item inventory by store/warehouse | Basic | 2 | ✓ | admin.jsp |
| Edit item inventory by store/warehouse | Advanced | 3 | | |
| Administrator Portal (up to 19 total points) | | | | |
| Secured by login | Core | 1 | ✓ | |
| List all customers | Core | 1 | ✓ | admin.jsp |
| List report showing total sales/orders | Core | 1 | ✓ | admin.jsp |

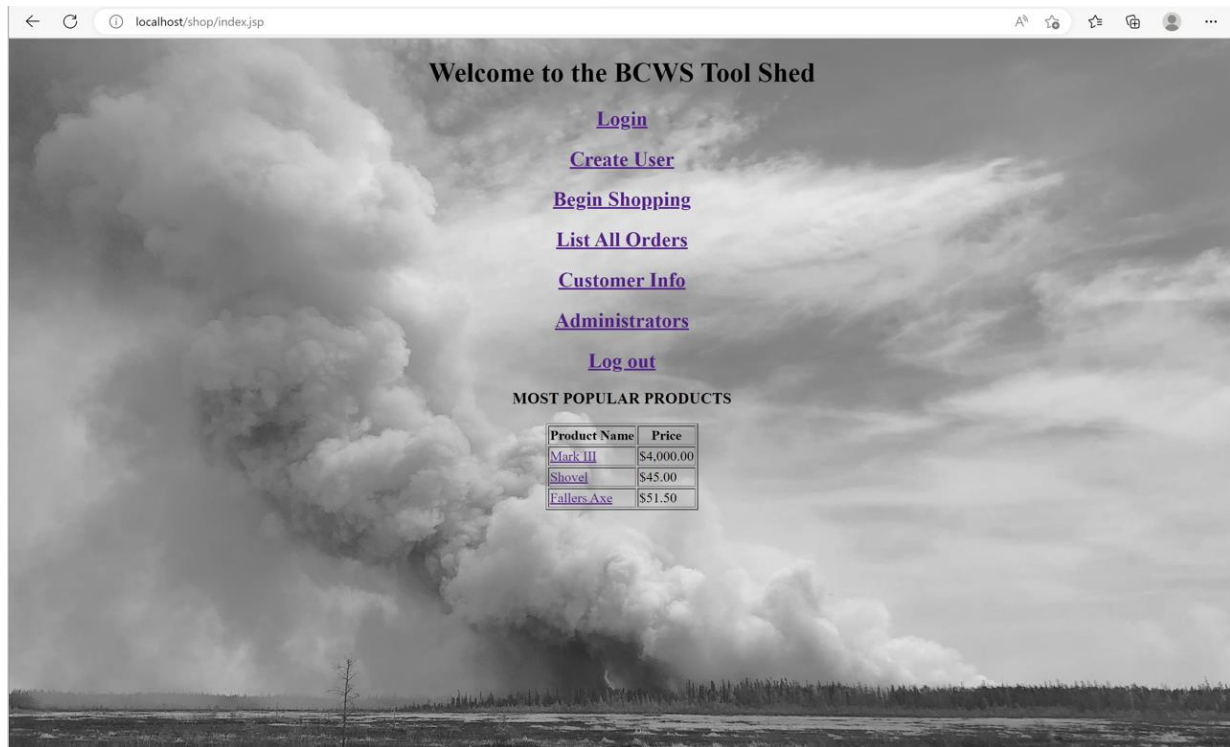
| | | | | |
|--|----------|---------|---|--|
| Report with a graph | Advanced | 3 | | |
| Add new product | Basic | 2 | ✓ | admin.jsp |
| Update/delete product | Basic | 2 | | |
| Change order status/ship order | Basic | 1 | | |
| Upload a photo to file system for product | Advanced | 2 | | |
| OR: Upload a photo to database for product | Advanced | 4 | | |
| Database restore with SQL script | Basic | 2 | ✓ | |
| Add/update warehouse, customer | Basic | 2 | | |
| Database System/General | | | | |
| Implement some validation using triggers | Advanced | 2 | | |
| Use AJAX for some pages | Advanced | 4 | | |
| User interface and navigation/usability | | Up to 5 | 1 | All files include background and main interaction screens have navigation back to home |
| <i>Others (your suggestions)</i> | | Up to 5 | | |
| Total: (out of 50 with maximum of 10 bonus marks. i.e. 60 points out of 50 is max.) | | | | |

Users: mac, tanner, blake, logan, ramon

Cid: 1, 2, 3, 4, 5,

Passwords: mac, tanner, blake, logan, ramon

System Walkthrough



Opening page

Please Login to System

Username:

Password:

From the opening page a user can choose to login here the user would enter their credentials

localhost/shop/index.jsp

Welcome to the BCWS Tool Shed

[Login](#)
[Create User](#)
[Begin Shopping](#)
[List All Orders](#)
[Customer Info](#)
[Administrators](#)
[Log out](#)

Signed in as: mac

MOST POPULAR PRODUCTS

| Product Name | Price |
|-----------------------------|------------|
| Mark III | \$4,000.00 |
| Shovel | \$45.00 |
| Fallers Axe | \$51.50 |

The user is returned to the main page with their name appearing below logout

Signed in as: mac

Create User

First Name:

Last Name:

Email:

Phone Number:

Address:

City:

State:

Country:

Postal Code:

User ID:

Password:

Please fill in all fields!

A new user can also be added by selecting the given link and entering details

Customer List

| Customer ID | Customer Name |
|-------------|----------------------|
| mac | Mackenzie Kudrenecky |
| tanner | Tanner Dyck |
| blake | Blake Ablitt |
| logan | Logan Gilroy |
| ramon | Ramon Lawrence |
| new | new user |
| hello | new1 last |
| mac | mac mac |
| m | mac mac |
| new | New User |

After adding the new user they are added to the list of users visible in the admin page

localhost/shop/listprod.jsp

BCWS Tool Shed

Signed in as: mac

Browse Products By Category and Search by Product Name:

All

All Products

| | Product Name | Category | Price |
|-------------|----------------|-------------|------------|
| Add to Cart | Pulaski | Hand Tools | \$65.00 |
| Add to Cart | Shovel | Hand Tools | \$45.00 |
| Add to Cart | Fallers Axe | Hand Tools | \$51.50 |
| Add to Cart | Fire rake | Hand Tools | \$80.00 |
| Add to Cart | Mark III | Pumps | \$4,000.00 |
| Add to Cart | Striker | Pumps | \$2,500.00 |
| Add to Cart | Floto | Pumps | \$3,345.95 |
| Add to Cart | Husqvarna 365 | Power Tools | \$1,200.00 |
| Add to Cart | 20L Jerry | Fuel | \$33.33 |
| Add to Cart | 10L Jerry | Fuel | \$15.15 |
| Add to Cart | Jet A | Fuel | \$430.00 |
| Add to Cart | Hard Hat | PPE | \$21.20 |
| Add to Cart | Safety Glasses | PPE | \$8.50 |

The general shopping page is shown once the begin shipping page link is selected

Dashboard x csc_304/3 x csc_304/3 x csc_304/3 x csc_304/3 x BCWS Tool x COSC304 - L x beige backg x Beige Backg x

localhost/shop/listprod.jsp?categoryName=All&productName=hard

BCWS Tool Shed

Signed in as: mac

Browse Products By Category and Search by Product Name:

All

Products containing 'hard'

| | Product Name | Category | Price |
|-------------|--------------|----------|---------|
| Add to Cart | Hard Hat | PPE | \$21.20 |

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Users can choose to search for products by partial name is "hard"

Dashboard x cosc_304/3/ x cosc_304/3/ x cosc_304/3/ x cosc_304/3/ x BCWS Tool x COSC304 - L x beige backg x Beige Backg x

localhost/shop/listprod.jsp?categoryName=Pumps&productName=

BCWS Tool Shed

Signed in as: mac

Browse Products By Category and Search by Product Name:

Pumps

Products in category: 'Pumps'

| | Product Name | Category | Price |
|-----------------------------|--------------|----------|------------|
| Add to Cart | Mark III | Pumps | \$4,000.00 |
| Add to Cart | Striker | Pumps | \$2,500.00 |
| Add to Cart | Floto | Pumps | \$3,345.95 |
| Add to Cart | jeans | Pumps | \$33.00 |
| Add to Cart | jeans | Pumps | \$33.00 |
| Add to Cart | tshirt | Pumps | \$12.12 |


Users can also choose to search by product category ie “pumps”

Dashboard x cosc_304/3/ x cosc_304/3/ x cosc_304/3/ x cosc_304/3/ x BCWS Tool x COSC304 - L x beige backg x Beige Backg x

localhost/shop/product.jsp?id=1

Signed in as: mac

Pulaski



Id 1
Price \$65.00
Description Good for diggin

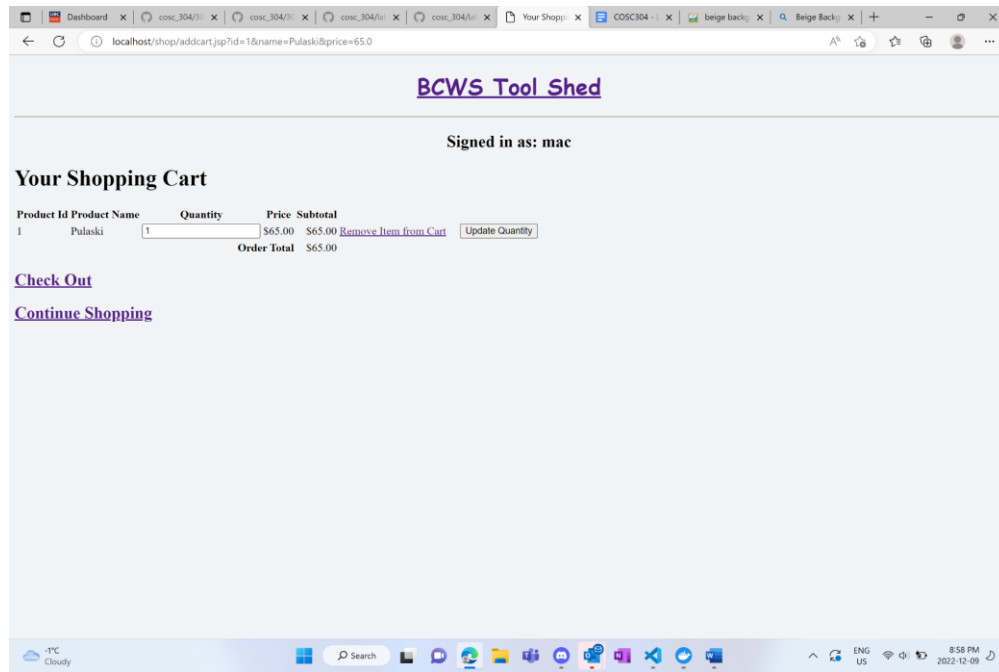
[Add to Cart](#)
[Continue Shopping](#)

Reviews

| Review Rating (* / 5) | Date | Customer Id | Comments |
|-----------------------|-----------------------|-------------|---|
| 5 | 2022-12-08 12:00:00.0 | 1 | this thing goes hard |
| 4 | 2022-12-03 11:00:00.0 | 1 | I use this everyday, never lets me down |

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After finding a product the user wants they can select it to see more information



Once the user decides they want the product they select add to cart which allows them to pick a quantity.

Id: 2
Price: \$45.00
Description: Good for leanin

[Add to Cart](#)
[Continue Shopping](#)

Reviews

| Review Rating (*5) | Date | Customer Id | Comments |
|--------------------|-----------------------|-------------|----------|
| 1 | 1900-01-01 00:00:00.0 | 1 | dull |

Leave a Review:

Rating (*5):

Date:

Customer Id:

Comments:

Product ID: Current Product Id: 2

Please fill in all fields!

Before adding to cart a user can leave a review on a product

Leave a Review:

Rating (*5):

Date:

Customer Id:

Comments:

Product ID: Current Product Id: 2

Limit One Review per Item per Customer!

The site will limit the users to a single review per product

BCWS Tool Shed

Signed in as: mac

Your Shopping Cart

| Product Id | Product Name | Quantity | Price | Subtotal | |
|-------------|--------------|--------------------------------|---------|----------|--|
| 1 | Pulaski | <input type="text" value="1"/> | \$65.00 | \$65.00 | Remove Item from Cart <input type="button" value="Update Quantity"/> |
| Order Total | | | \$65.00 | | |

[Check Out](#)

[Continue Shopping](#)

After adding to cart a user selects quantity and checkout

Enter your customer id and password to complete the transaction:

Customer ID:

Password:

User enters credentials to checkouts

Your Order Summary

| Product Id | Product Name | Quantity | Price | Subtotal |
|-------------|--------------|----------|---------|----------|
| 1 | Pulaski | 1 | \$65.00 | \$65.00 |
| Order Total | | | \$65.00 | |

Order completed. Will be shipped soon...

Your order reference number is: 12

Shipping to customer: 1 Name: Mackenzie Kudrenecky

[Return to shopping](#)

The user is then given an order summary and order number

Dashboard x cosc_304/30 x cosc_304/30 x cosc_304/30 x cosc_304/30 x BCWS Tool x COSC304 - l x beige backg x Beige Backg x + -

localhost/shop/listorder.jsp

BCWS Tool Shed

Order List

| Order Id | Order Date | Customer Id | Customer Name | Total Amount | | | | | | | | | | | | | | | | | | |
|------------|-------------------------|-------------|--|--------------|----------|-------|---|---|---------|----|---|---------|----|---|---------|----|---|---------|----|---|---------|--|
| 1 | 2019-10-15 10:25:55.0 | 1 | Mackenzie Kudrenecky | \$91.70 | | | | | | | | | | | | | | | | | | |
| | | | <table border="1"> <thead> <tr> <th>Product Id</th> <th>Quantity</th> <th>Price</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>1</td> <td>\$18.00</td> </tr> <tr> <td>5</td> <td>2</td> <td>\$21.35</td> </tr> <tr> <td>10</td> <td>1</td> <td>\$31.00</td> </tr> </tbody> </table> | Product Id | Quantity | Price | 1 | 1 | \$18.00 | 5 | 2 | \$21.35 | 10 | 1 | \$31.00 | | | | | | | |
| Product Id | Quantity | Price | | | | | | | | | | | | | | | | | | | | |
| 1 | 1 | \$18.00 | | | | | | | | | | | | | | | | | | | | |
| 5 | 2 | \$21.35 | | | | | | | | | | | | | | | | | | | | |
| 10 | 1 | \$31.00 | | | | | | | | | | | | | | | | | | | | |
| 2 | 2019-10-16 18:00:00.0 | 2 | Tanner Dyck | \$106.75 | | | | | | | | | | | | | | | | | | |
| | | | <table border="1"> <thead> <tr> <th>Product Id</th> <th>Quantity</th> <th>Price</th> </tr> </thead> <tbody> <tr> <td>5</td> <td>5</td> <td>\$21.35</td> </tr> </tbody> </table> | Product Id | Quantity | Price | 5 | 5 | \$21.35 | | | | | | | | | | | | | |
| Product Id | Quantity | Price | | | | | | | | | | | | | | | | | | | | |
| 5 | 5 | \$21.35 | | | | | | | | | | | | | | | | | | | | |
| 3 | 2019-10-15 03:30:22.0 | 3 | Blake Ablitt | \$140.00 | | | | | | | | | | | | | | | | | | |
| | | | <table border="1"> <thead> <tr> <th>Product Id</th> <th>Quantity</th> <th>Price</th> </tr> </thead> <tbody> <tr> <td>6</td> <td>2</td> <td>\$25.00</td> </tr> <tr> <td>7</td> <td>3</td> <td>\$30.00</td> </tr> </tbody> </table> | Product Id | Quantity | Price | 6 | 2 | \$25.00 | 7 | 3 | \$30.00 | | | | | | | | | | |
| Product Id | Quantity | Price | | | | | | | | | | | | | | | | | | | | |
| 6 | 2 | \$25.00 | | | | | | | | | | | | | | | | | | | | |
| 7 | 3 | \$30.00 | | | | | | | | | | | | | | | | | | | | |
| 4 | 2019-10-17 05:45:11.0 | 2 | Tanner Dyck | \$327.85 | | | | | | | | | | | | | | | | | | |
| | | | <table border="1"> <thead> <tr> <th>Product Id</th> <th>Quantity</th> <th>Price</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>4</td> <td>\$10.00</td> </tr> <tr> <td>8</td> <td>3</td> <td>\$40.00</td> </tr> <tr> <td>13</td> <td>3</td> <td>\$23.25</td> </tr> <tr> <td>28</td> <td>2</td> <td>\$21.05</td> </tr> <tr> <td>29</td> <td>4</td> <td>\$14.00</td> </tr> </tbody> </table> | Product Id | Quantity | Price | 3 | 4 | \$10.00 | 8 | 3 | \$40.00 | 13 | 3 | \$23.25 | 28 | 2 | \$21.05 | 29 | 4 | \$14.00 | |
| Product Id | Quantity | Price | | | | | | | | | | | | | | | | | | | | |
| 3 | 4 | \$10.00 | | | | | | | | | | | | | | | | | | | | |
| 8 | 3 | \$40.00 | | | | | | | | | | | | | | | | | | | | |
| 13 | 3 | \$23.25 | | | | | | | | | | | | | | | | | | | | |
| 28 | 2 | \$21.05 | | | | | | | | | | | | | | | | | | | | |
| 29 | 4 | \$14.00 | | | | | | | | | | | | | | | | | | | | |
| 5 | 2019-10-15 10:25:55.0 | 5 | Ramon Lawrence | \$277.40 | | | | | | | | | | | | | | | | | | |
| | | | <table border="1"> <thead> <tr> <th>Product Id</th> <th>Quantity</th> <th>Price</th> </tr> </thead> <tbody> <tr> <td>5</td> <td>4</td> <td>\$21.35</td> </tr> <tr> <td>19</td> <td>2</td> <td>\$81.00</td> </tr> <tr> <td>20</td> <td>3</td> <td>\$10.00</td> </tr> </tbody> </table> | Product Id | Quantity | Price | 5 | 4 | \$21.35 | 19 | 2 | \$81.00 | 20 | 3 | \$10.00 | | | | | | | |
| Product Id | Quantity | Price | | | | | | | | | | | | | | | | | | | | |
| 5 | 4 | \$21.35 | | | | | | | | | | | | | | | | | | | | |
| 19 | 2 | \$81.00 | | | | | | | | | | | | | | | | | | | | |
| 20 | 3 | \$10.00 | | | | | | | | | | | | | | | | | | | | |
| 6 | 2022-12-09 19:47:07.867 | 1 | Mackenzie Kudrenecky | \$65.00 | | | | | | | | | | | | | | | | | | |

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After an order is placed it can be seen by admin under the order list

Please Login to System

You have not been authorized to access the URL <http://localhost/shop/admin.jsp>

Username:

Password:

To access the admin page select admin from the main page which will bring you to the page above

Dashboard x cosc_304/30 x cosc_304/30 x cosc_304/30 x cosc_304/30 x Administrat: x COSC304 - l x beige backg x Beige Backg x + -

localhost/shop/admin.jsp

BCWS Tool Shed

Administrator Sales Report by Day

| Order Date | Total Order Amount |
|------------|--------------------|
| 2019-10-15 | \$509.10 |
| 2019-10-16 | \$106.75 |
| 2019-10-17 | \$327.85 |
| 2022-12-9 | \$200.00 |
| 2022-12-10 | \$130.00 |

Customer List

| Customer ID | Customer Name |
|-------------|----------------------|
| mac | Mackenzie Kudrenecky |
| tanner | Tanner Dyck |
| blake | Blake Ablitt |
| logan | Logan Gilroy |
| ramon | Ramon Lawrence |
| new | new user |
| hello | new1 last |
| mac | mac mac |
| m | mac mac |
| new | New User |

Warehouse Inventory

| Product Name | Product ID | Inventory Quantity |
|--------------|------------|--------------------|
| Pulaski | 1 | 5 |
| Shovel | 2 | 10 |
| Fallers Axe | 3 | 3 |
| Fire rake | 4 | 2 |
| Mark III | 5 | 6 |
| Striker | 6 | 3 |

-1°C Cloudy Search ENG US 9:00 PM 2022-12-09

After entering the admin portal there are a variety of things to be viewed

Warehouse Inventory

| Product Name | Product ID | Inventory Quantity |
|---------------|------------|--------------------|
| Pulaski | 1 | 5 |
| Shovel | 2 | 10 |
| Fallers Axe | 3 | 3 |
| Fire rake | 4 | 2 |
| Mark III | 5 | 6 |
| Striker | 6 | 3 |
| Floto | 7 | 1 |
| Husqvarna 365 | 8 | 0 |
| 20L Jerry | 9 | 2 |
| 10L Jerry | 10 | 3 |

Add New Product:

Product Name

Category ID

Product Description

Product Price

Please fill in all fields!

At the bottom of the admin page an admin can choose to add a new product

| | | | |
|-------------|---------|------------|----------|
| Add to Cart | jacket | Hand Tools | \$200.00 |
| Add to Cart | jeans | Pumps | \$33.00 |
| Add to Cart | jeans | Pumps | \$33.00 |
| Add to Cart | shorts | Fuel | \$33.40 |
| Add to Cart | tshirt | Pumps | \$12.12 |
| Add to Cart | Hosebag | Pumps | \$23.75 |

After a new product is added it appears under the available items in the shopping page



Welcome to the BCWS Tool Shed

[Login](#)

[Create User](#)

[Begin Shopping](#)

[List All Orders](#)

[Customer Info](#)

[Administrators](#)

[Log out](#)

Signed in as: mac

MOST POPULAR PRODUCTS

| Product Name | Price |
|--------------------------|------------|
| Floto | \$3,345.95 |
| Mark III | \$4,000.00 |
| Pulaski | \$65.00 |

After users have used the site and orders have been placed the popular items page updates to display the top 3 products