

Welcome to The End of The RAINBOW!!!

COVID got you feeling down about the state of the world? Come on by and spread some joy!

http://127.0.0.1/shop/index.jsp

Note: Please visit <u>http://127.0.0.1/shop/loaddata.jsp</u> first.

December 5, 2020 Corey Bond

1. Purpose

Mission Statement:

Our mission is to bring kindness and joy back into the world by providing people with a means to safely share thoughts, feelings, actions, and behaviours with those around them.

Executive Summary:

2020 has been a tough year for all of us – the pandemic has added a high degree of stress and financial hardship to many different people all over the world. Families and friends are separated, and feelings of isolation are becoming ubiquitous. **That's where we come in**: You won't find any negativity here, just optimism, good will, and bright colours!

The End of The Rainbow has 5 categories of products for sale:

- 1. **Thoughts** A way for you to let someone know you are thinking of them, and hopefully brighten their day! Send well wishes or insight to those that need it.
- 2. **Feelings** Do you miss someone? Send them some positive feelings to brighten their day and let them know that you are there for them! Spread joy and happiness, we could always use more.
- 3. Actions Looking for something more concrete than thoughts and feelings? Actions provide a tangible way for people to send goodwill to those they love. If you don't have anyone in mind, we have a "good deeds" option where a good deed will be performed for a stranger in need. Think of it as paying it forward.
- 4. Behaviours The behaviour we all wish we saw in those around us! It is in your power to foster those behaviours in others or in yourself. Feeling listless? Learn some leadership skills and feel better about your ability to guide others to success (whatever success may look like for you). Knowledge is our only item with a large price tag society places a large value on knowledge, so if you're looking to buy it, it will cost you. Won't it be better to go out and explore or learn about the world for free through curiosity and respect?
- 5. **Merchandise** This is our most practical and tangible category. Let's face it sometimes when you're feeling low you need a bit of shopping therapy! Purchase one of our mugs or t-shirts and show off your love of the rainbow!

Our goal is to be a beacon of light and positivity. The only way we can move forward in these trying times is to reach out to others and provide them with a source of hope and happiness. Be the first to reach out and see how it spreads. We all saw the movie, right? Positivity and good deeds have the ability to grow exponentially if we just try.

2. System Features

Final Overall System Features	Category	Possible Points	Points	Comments / Code Files	
Documentation					
Executive Summary (up to 1 page)	Core	2		Section 1	
System Features (2 pages)	Core	2		Section 2	
Walkthrough with screenshots (up to 10 pages)	Core	6		Section 3	
Main/Home Page					
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		listprod.jsp, product.jsp	
Page header with menu	Basic	1		header.jsp	
Page header shows current logged in user	Basic	1		header.jsp	
Dynamic products on page based on sales	Basic	2		listprod.jsp	
Improved UI (user-friendly, images, etc.)	Basic	2		index.jsp, listprod.jsp	

Shopping Cart

Add to shopping cart	Core	1	addcart.jsp, listprod.jsp, product.jsp
View shopping cart	Core	1	showcart.jsp
Update quantity (with data validation)	Basic	1	showcart.jsp
Remove item from shopping cart	Basic	1	showcart.jsp
Improved formatting/UI (e.g. in header	Basic	1	header.jsp, template.css,
bar)	Basic	1	showcart.jsp

Checkout

Checkout with customer id Core 1 <i>checkout.jsp</i>
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Product Detail Page

Product detail page and item description	Core	1	product.jsp
Product detail has an image from database	Core	1	<pre>product.jsp - productImageURL</pre>

System Features continued...

User Accounts/Login

		_	
Create user account page	Basic	2	createUser.jsp, customer.jsp
Create account with data validation	Basic	2	login.jsp, createUser.jsp, insertUser.jsp
Edit user account info (address, password)	Basic	2	customer.jsp, updateUser.jsp
Login/logout	Core	1	login.jsp, logout.jsp, validateLogin.jsp
Page listing all orders for user	Core	1	listorder.jsp (admin sees all orders)

Product Reviews

Ability to enter a review on a product	Basic	2	product.jsp, addReview.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, addReview.jsp

Warehouses/Inventory

Display item inventory by store/warehouse	Basic	2	admin.jsp – only admin can see
Edit item inventory by store/warehouse	Advanced	3	admin.jsp, inventoryUpdate.jsp

Administrator Portal

Secured by login	Core	1	admin.jsp, adminBool.jsp
List all customers	Core	1	admin.jsp
List report showing total sales/orders	Core	1	listorder.jsp, admin.jsp
Add new product	Basic	2	admin.jsp, addProduct.jsp
Update/delete product	Basic	2	admin.jsp, productUpdate.jsp, updateProduct.jsp, deleteProduct.jsp
Change order status/ship order	Basic	1	admin.jsp, ship.jsp
Database restore with SQL script	Basic	2	admin.jsp, loaddata.jsp
Add/update warehouse, customer	Basic	2	admin.jsp, warehouseUpdate.jsp, addWarehouse.jsp, createUser.jsp, customerUpdate.jsp, updateUser.jsp

Database System/General

User interface and navigation/usability	Up to 5	2 for navigation.
Total:	60	

2. System Walkthrough

Admin user:		
Corey Bond	Username: corey	Password: admin
Generic sample user:		
Arnold Anderson	Username: arnold	Password: test
Bobby Brown	Username: bobby	Password: bobby
Candace Cole	Username: candace	Password: password
Darren Doe	Username: darren	Password: pw
Elizabeth Elliott	Username: beth	Password: test

Home Page: index.jsp

Welcome to the website! This is our lovely home page, and it features three different views depending on whether a user is logged in, and whether a logged in user is an admin. Notice that each version boasts links relevant to the user's status.

Not logged in

Logged in



Header: header.jsp

Many of the pages of our website feature headers. There are again three different versions depending on the user, featuring navigation links that are relevant to the user.



Admin Tools: admin.jsp

The admin tools link is only available to users who are logged in as admins. It boasts a wide array of helpful tools for the admin to monitor and maintain the website and database. We'll go through it one by one.

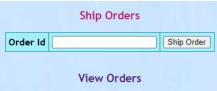
Administrator Sales Report by Day:

A brief overview of total sales per day, including a count of daily orders (notice how a mouse hovering over the row in the table highlights it – this is a feature throughout the website, for those of us with terrible eyesight!

Administrator Sales Report by Day						
Order Date	Total Order Amount	Total Daily Orders				
2019-10-15	\$186.29	3				
2019-10-16	\$37.50	1				
2019-10-17	\$241.00	1				
2020-12-6	\$19.00	1				

Ship Orders

An option for the admin to individually ship orders by number, or navigate through to the order listing page.



Simply input the order number, and if there is enough inventory it will be processed. If an item does not have enough inventory, it will not ship, and will list an error message for that item:



Product Details

A summary table of all products listed on the website and in the database, ordered by the product ID value, and including the image name associated with each item.

Product Dotails

	Product Details					
Product ID	Product Name	Price	Image URL	Description	Category Id	
1	Well Wishes	4.00	img/1.jpg	Send well wishes to a loved one	1	
2	Insight	15.00	img/2.jpg	Provides insight and direction	1	
3	Positivity	1.00	img/3.jpg	We could all use some positivity	1	
4	Kindness	0.50	img/4.jpg	Share some kindness with a stranger	1	
5	Enthusiasm	7.50	img/5.jpg	Experience enthusiasm	2	
6	Joy	10.01	img/6.jpg	Experience joy	2	
7	Excitement	12.34	img/7.jpg	Experience excitement	2	
8	Happiness	5.00	img/8.jpg	Don't you want to be happy?	2	
9	Good Deeds	2.75	img/9.jpg	Do a good deed for a stranger	3	
10	Help	1.25	img/10.jpg	Provide help to someone that needs it	3	
11	Celebration	45.00	img/11.jpg	Celebrate someone's acheivements	3	
12	Volunteer	0.01	img/12.jpg	Volunteer your time	3	
13	Leadership	38.00	img/13.jpg	Increase your leadership skills	4	
14	Honesty	24 42	ima/14 ina	Provide a dose of honesty	4	

Update Product Information

Admins are able to type in a product id, and they will be taken to a page populated with the product details, where they will be able to make changes. The field will only allow the user to type in positive integers. If the field is empty, or if the product number does not exist in the system, the screen will display an error message telling the admin what was wrong:

		EXPLORE THE END OF THE RAINBOW
Input field	Empty value	Non-existent Id
Update Product Information	Product Id must contain a value, please go back and try again	Product Id does not exist, please go back and try again
Product Id View Product	Back	Back

In addition to being prepopulated with the existing product details, the product page will only allow relevant data types, and the product id is read only. Note that the user will be redirected back to the admin page upon successful update of the data fields.

Produ	ct Information
Product Id	28
Product Name	End of The Rainbow T-Shirt ·
Price	18.00
Image URL	img/25.jpg
Description	100% Cotton, size large
Category Id	5
Upda	te changed fields

Delete Product

The user is able to remove products from the system, the input field only allows positive integers, and if the item does not exist, it will simply not be deleted. If the field is left empty, it will advise the user of the issue. Successful deletion will redirect the user back to the admin page.



Add Product

Admins are able to add products to the system by filling in the details. The product name is required, and has a trigger suggesting so. If the user opts to leave it as "Required", that's what the product will be called. The price and category id are also prepopulated with default values. This allows the system to not throw an error if they are forgotten. Successful addition of a product to the database will redirect back to the admin page.

Ac	ld Product
Product Name	Required
Price	00.00
Image URL	
Description	
Category Id	1
	Add Product

Customer Details

A summary table of all registered users and some basic associated information. Note that whether a user is an admin or not is included:

		Cust	Unier Deta	1115	
Customer ID	User Id	First Name	Last Name	Country	Admin Privileges?
1	corey	Corey	Bond	Canada	yes
2	arnold	Arnold	Anderson	Canada	no
3	bobby	Bobby	Brown	United States	no
4	candace	Candace	Cole	United States	no
5	darren	Darren	Doe	Canada	no
6	beth	Elizabeth	Elliott	United States	no

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Update Customer Information

Admins are able to type in a customer id, and they will be taken to a page populated with the full customer details, where they will be able to make changes. The field will only allow the user to type in positive integers. If the field is empty, or if the customer number does not exist in the system, the screen will display an error message telling the admin what was wrong:

Input field	Empty value	Non-existent Id
Update Customer Information	Customer Id must contain a value, please go back and try again	Customer Id does not exist, please go back and try again
Customer Id View Customer	Back	Back

In addition to being prepopulated with the existing customer detail pages, the customer page will only allow relevant data types, and the customer id and username are read only. Note that the user will be redirected back to the admin page upon successful update of the data fields.

Customer Information		
Id	6	
First Name	Elizabeth	
Last Name	Elliott	
Email	engel@uiowa.edu	
Phone	555-666-7777	
Address	555 Everwood Street	
City	Iowa City	
State	IA	
Postal Code	52241	
Country	United States	
User Id	beth	
Password		
Upo	late changed fields	

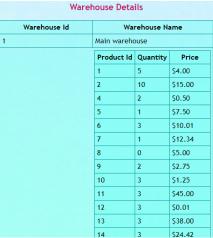
Add Customer

The admin is able to add a customer to the system – if they opt to leave fields blank, the system will simply create a user where all of the fields are blank. Notice that the "Admin" field is prepopulated with no in the dropdown in order to avoid accidentally giving users admin privileges. If they should be an admin, it is simple to change it to yes.

Username:	
First Name:	
Last Name:	
Password:	
Email Address:	
Phone Number:	
Street Address:	
City:	
State:	
Postal Code:	
Country:	
Admin:	no 🗸

Warehouse Details

This is a summary table that includes the warehouse Id as well as the warehouse name, and all of the products and associated inventory associated with each warehouse.



Notice how the background colour has changed as we scroll down - isn't that lovely?!

Add Warehouse

Similar to customers and products, admins can also add warehouses. However, in this case they simply need to type in a warehouse name, and it will be added. Empty fields will be entered without a name. Once the warehouse is added, the user will be redirected to the admin page.



Update Warehouse Name

If an admin needs to change the name of a warehouse that they just added with an empty name field, they simply need to fill in the existing warehouse id and the new name. Similarly to the others, if the

warehouse id field is left blank, the user will receive an error message. Successful update will redirect the user back to the admin page.



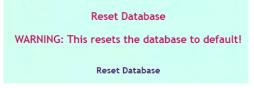
Update Inventory

Product inventory is either added or updated depending on whether the product already exists at the factory or not. In order to avoid confusion about whether it adds or replaces the value, the screen advises the user that the quantity changes to the new value – it is not added. If one or more of the values is left blank, the user is given an error message. Upon successful addition/update, the user is redirected back to the admin screen.



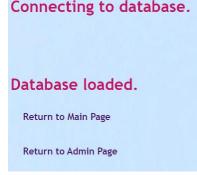
Reset Database

Lastly in the admin screen, if an admin needs to reset the database (say they just went down the entire screen, adding random values as they went), they can click the link to reset. Notice the warning!



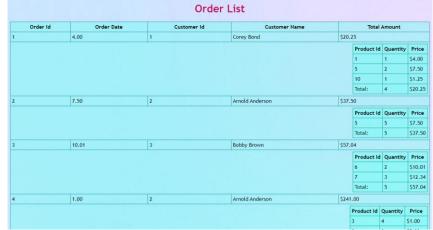
Load the Database: loaddata.jsp

Navigating to this page by typing it in, navigating from the image at shop.html (defunct old page that I had bookmarked, and would visit first), or from the admin screen will reload the database, getting rid of any changes that have been made. It provides links either back to the main page or the admin page



Order List: listorder.jsp

Navigating through to the order listing page, users logged in as admin will see all orders:



Meanwhile, users logged in without admin privileges will simply see their orders:

		Orde	ri List			
Order Id	Order Date	Customer Id	Customer Name	π	tal Amount	
2	7.50	2	Arnold Anderson	\$37.50		
				Produ	t Id Quantit	y Price
				5	5	\$7.50
				Total:	5	\$37.50
4	1.00	2	Arnold Anderson	\$241.00		
				Product	Id Quantity	Price
				3	4	\$1.00
				8	3	\$5.00
				13	3	\$38.00
				28	2	\$18.00
				29	4	\$18.00
				Total:	16	\$241.00

Orders are broken down into sub-tables that include overall order information, as well as information about the quantity and price of each item ordered.

Login Page: login.jsp

Upon navigating to the login page, users have the option to login as an existing user or register as a new user. If they login with incorrect information, they will receive an error message.

Error message	No error message
Please Login to System	Please Login to System
Could not connect to the system using that username/password.	Username:
Username:	Password:
Password	Log In
Log In	OR
Register as new user:	Register as new user:
Username	Username:
Check Availability	Check Availability

If they choose to register as a new user, the system will check whether it is a valid username before proceeding to a page where the user can input their information. Note that the username field is populated with their choice, and is now read-only.

EXPLORE THE END OF THE RAINBOW

Unavailable username Username is not available, please go back and try again

Back

Available username

Username:	frank
First Name:	
Last Name:	
Password:	
Email Address:	
Phone Number:	
Street Address:	
City:	
State:	
Postal Code:	
Country:	[

Upon successful login or registration, the user is redirected to the homepage, with the system having automatically signed them in with their new account.

User Profile: customer.jsp

This is the summary page where the user can view their existing information, and update if necessary. It is the same template that the admin sees, so the customer id and username are read only, and cannot be changed. Upon successful update, the customer will see an update message letting them know it was successful, that will be cleared the next time the customer visits the main page. There is also a link to the orders page, so that the customer may view the orders they have placed.

Id	[1]
First Name	Corey
Last Name	Bond
Email	nottelling@gmail.com
Phone	123-555-4567
Address	712 Somewhere Drive
City	Anytown
State	BC
Postal Code	V1V 4NT
Country	Canada
User Id	corey
Password	
	fate changed fields

Product Listing: listprod.jsp

The product listing page includes a dynamic banner across the top of the page, that updates with the top 3 highest selling items each time the page is loaded. This will encourage the customer to purchase these high-volume items.

Additionally, the customer is able to filter the products by category, search by product name, or a combination of both. They are also able to reset if they would like to view all items again.

Products are listed with colour coding according to category, and small preview images for the customer. Clicking on add to cart will add the product to the customer's cart, while clicking the product name will open up a product detail page.

Top Selling Products:

	Image	Product Name	Category	Price
Add to Cart	X X X X	Enthusiasm	Feelings	\$7.50
Add to Cart	Ê	End of The Rainbow T-Shirt - XL	Merchandise	\$18.00
Add to Cart	*	Positivity	Thoughts	\$1.00

Browse Products By Category and Search by Product Name:

Browse Product	s By Category and Se	earch by Product Name:		
All 🗸		Submit Reset		
All Products				
	Image	Product Name	Category	Price
Add to Cart	#	Well Wishes	Thoughts	\$3.08
Add to Cart	5	Insight	Thoughts	\$15.00
Add to Cart	*	Positivity	Thoughts	\$1.00
Add to Cart	Kinden Mege	Kindness	Thoughts	\$0.50
Add to Cart	XJKXC	Enthusiasm	Feelings	\$7.50

Product Detail Page: product.jsp

Navigating to this page allows the customer to view the larger product image, as well as the product id, price, and full description. There are also user reviews populated on the page, as well as an entry field for the user to add their own review. If the user tries to post a review for a product they have not purchased, or an item they've already reviewed, they will receive an error message.

		Enthusiasm

		Id 5 Price \$7.50 Description: "Experience enthusiasm" User Reviews: User Reviews:
Rating 4	Date 2020-09-24	Review Helped me decide what to do
		Add a review:
		Rating: Date:
		Customerld:
		Product Id: 5
		Review:
		Submit
		Add to Cart

Shopping Cart: showcart.jsp

Users can view the items in their shopping cart, as well as update the quantities, or remove items they no longer want. From the cart, they are able to keep shopping, or continue shopping. A message is shown if the shopping cart is empty the first time it is visited, after that, it populates with an empty table.

		Ful	l ca	irt		
	Y	our She	oppin	g Cart		
oduct Id	Product Name	Quantity	Price	Subtotal		
	Enthusiasm	1	\$7.50	\$7.50	Remove Item	Update Quantity
	Rainbow Mug	1	\$12.50	\$12.50	Remove Item	Update Quantity
,	End of The Rainbow T-Shirt - XL	1	\$18.00	\$18.00	Remove Item	Update Quantity
			0	rder Total	\$38.00	
		Che	eck Out	£		
		Continu	ie Shop	ping		

Checkout: *checkout.jsp*

Once customers check out, they are prompted to input their customer ID and password in order to complete their purchase. Once valid information has been entered, the user is redirected to a summary screen. They are prompted to try again if their credentials are invalid.

Entry screen	Invalid credentials
Enter your customer id and password to complete the transaction:	Invalid customer id. Go back to the previous page and try again.
Customer ID:	Back to Main Page
Submit Reset	

Order Summary: order.jsp

Once a customer has successfully checked out, they are sent to an order summary page that informs them that the order is complete and provides further details about the reference number. There is a link provided to go back to the main page.

Product Id	Product Name	Quantity	Price	Subtotal
5	Enthusiasm	4	\$7.50	\$30.00
29	End of The Rainbow T-Shirt - XL	1	\$18.00	\$18.00
27			4.0100	
		Orde	er Total	\$48.00
Order com /our order	pleted. Will be shipped soo reference number is: 6 o customer: 1. Name: Core	Orde		\$48.00

3. Known Issues:

- Trying to access admin page without being logged in will cause the page to not load, but there are no links to the page unless an admin user is logged in.
- Could potentially have changed admin portal to have separate pages depending on topic, but when it was long, the colour changed as you scrolled down, and that made me happy.
- If you intentionally empty out the fields when adding a product, there will be errors. Do not do this, it is unnecessary and pointless.
- Refreshing the cart after adding an item will continue to keep adding the item.
- Customers can enter anybody's user id and password at checkout there is no validation that the logged in customer is who checks out.
- It is by no means flawless, and the code could definitely use some more commenting, but I did this by myself and I'm very, very tired. Please forgive me 😊