



**T-Shirt Sale Website  
University of British Columbia Okanagan**

**COSC 304 - Fall 2017**

Version FINAL

Removed

## Table of Contents:

<b>Table of Contents:</b>	<b>2</b>
<b>Introduction:</b>	<b>3</b>
<b>Executive Summary:</b>	<b>3</b>
<b>UML Design Diagram:</b>	<b>4</b>
<b>Domain Assumptions:</b>	<b>4</b>
<b>Relational Assumptions:</b>	<b>5</b>
<b>Implemented Features:</b>	<b>6</b>
<b>Web Interface:</b>	<b>9</b>
<b>Website Walkthrough:</b>	<b>10</b>
<b>Site Limitations and Issues:</b>	<b>22</b>

## Introduction:

PleaseBuyOurTShirts.xyz is an online T-shirt store that allows customers to purchase T-shirts from our storefront and ship them to a desired address.

This document details the design guidelines for PleaseBuyOurTshirts.xyz that are to be delivered. This site is tailored towards a small company with minimal stock that wishes to establish a straightforward and efficient internet presence.

## Executive Summary:

PleaseBuyOurTShirts.xyz is an online marketplace where both guests, and registered users can browse unique shirts overflowing with character. However, only registered users are allowed to purchase items.

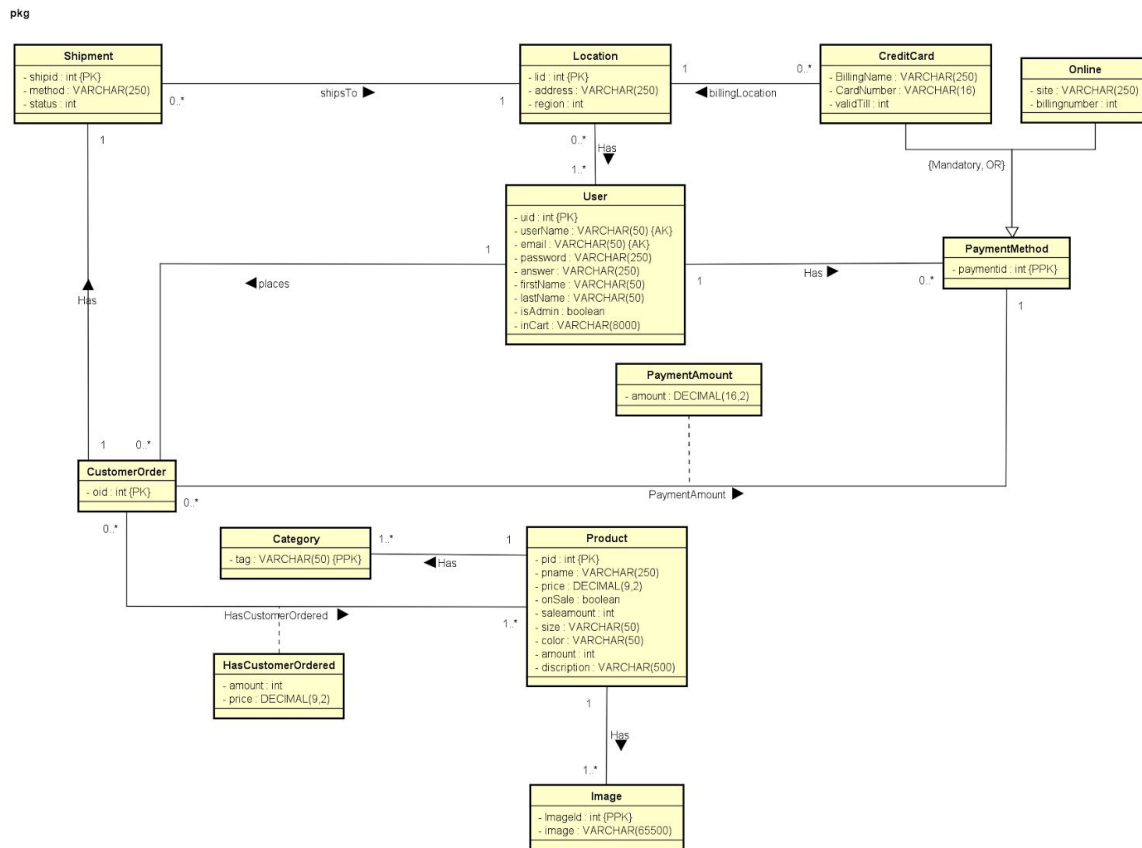
Guests may browse, add items to their cart but before checking out will have to login/signup and use their credit card or paypal to make a payment. A user's cart will last as long as they remain in a session. The system will not attempt to save information on guest users.

Users who choose to create an account will input their preferred username (provided it is available), password, and other provided information. The system can (whether or not it's at account creation or checkout) save their name, email, shipping and billing addresses, credit card info, and other preferences. When logged in, carts will be saved for registered users until the next time they log back into the website.

Administrators have the authority to perform maintenance and make changes to the prices, images and listings of products for sale.

The online T-shirt website is modeled with an Entity-Relationship diagram that utilizes the Unified Modeling Language. The site is implemented using Node.JS, the npm MySQL package and Express JS. PleaseBuyOurTShirts.xyz is hosted on the company's Ubuntu Apache server. The MySQL database is utilized as the main database for the system.

## UML Design Diagram:



## Domain Assumptions:

- **User:** User has a unique identification number (id) of type integer, unique username and email address with capacity of 50 characters. User also creates password for the specified username with maximum of 250 characters. The DB also stores firstname, lastname (of 50 characters) and the answer (of 250 characters) to the security question upon registration. At the end it also defines if the user is administrator or not.

- **Product:** Each product has a unique id of type integer, name with 250 characters, maximum price of (\$ 9999999.99), size and colour of 50 characters. Products also keeps track of the amount of items left in the store, whether it is on sale or not (boolean) and what would be the sales price if it is on sale. Each product is also tagged in a category and has at least one image. The user can save product(s) in the cart section and place them in order later.
- **Shipment:** Each shipment is associated with a unique id, and method of shipping the product (e.i. Shipping to another region with airplane would be considered as air method) to the specified location. Shipment also shows the tracking status(i.e. 0 -> Not yet shipped, 1 -> shipped, 2 -> in transit, 3 -> delivered).
- **Location:** Location contains a unique id of type integer, the address of shipment destination, and the region of type integer predefined between zero to eleven inclusive. For the region zero to nine inclusive is assigned to the provinces of Canada, integer ten is assigned to northwest Territories, and number eleven is reserved for addresses outside Canada.
- **Payment Method:** The user can pay for the products using a credit card. For subclass credit card, we require billing name, card number, and expiry date of the card to process the payment.
- **Order:** The user can keep track of each order using the unique id number assigned to each order, and it keeps track of amount of the product has been ordered.
- **Image:** Each image has an id of type integer and the image data as a base64 data uri.

## Relational Assumptions:

- **User:** a user can place zero to many orders. The user may also complete zero to many payments at a time. The user can place none of the visited products in order or can place all of the visited products in the order. User can have many shipment address.

- **PaymentMethod:** Payment Method has two subclasses that is (mandatory, or) which means the payment can be completed either way but it should be completed using credit card or a website.
- **Location:** A location belongs to only one user. A location can receive as many shipments as possible.
- **Shipment:** Every Shipment has one destination address, but there is only one shipment per order.
- **Order:** A single order can contain one or many amounts of products and each order has one payment.
- **CreditCard Billing:** Each bill can be send to only one destination location and each location can receive many bills.
- **Product:** Each product may have one or many images, however each image can belong to only one product. Each product can also belong to one or many category and category can contain none or many products.

## Implemented Features:

Final Overall System Features	Points	% Complete	Code Files
<b>Main Page</b>			
Home page running on web server	2	100%	Index.js
Search for a product by name	2	100%	search.js
List products (by search/browse)	2	100%	search.js
Browse Product by category	2	50%	admin.js
List products with image	2	100%	search.js
Page header with menu	1	100%	navbar.hbs

Page header shows current logged in user	1	100%	navbar.hbs
Dynamic product on page based on sales	2	100%	bestSellers.js
<b>Shopping Cart</b>			
Add to shopping cart	2	100%	Search.js or cart.js ***
View shopping cart	2	100%	incart.js
Update item quantity in shopping cart	1	100%	incart.js
Remove item from shopping cart	1	100%	incart.js
Shopping cart data validation on updates	1	100%	incart.js
Improved formatting/UI (e.g. in header bar)	1	100%	navbar.hbs
<b>Checkout</b>			
Checkout with customer id	2	100%	checkout.js
Checkout with payment/shipment info	2	100%	order.js
Checkout with data validation	2	100%	incart.js
Inventory tracking per item	1	100%	search.js
Inventory tracking by store/warehouse	2	100%	search.js
Multiple shipments per order supported	3		
Calculate taxes and shipping cost	2	100%	order.js

<b>Product Detail Page</b>			
<b>Product detail page and item description</b>	<b>2</b>	<b>100%</b>	<b>product.js</b>
<b>Product detail has an image</b>	<b>1</b>	<b>100%</b>	<b>prodcutPage.js</b>
<b>Product detail has an image from database</b>	<b>3</b>	<b>100%</b>	<b>prodcutPage.js</b>
<b>User Accounts and Login</b>			
<b>Create user account page</b>	<b>2</b>	<b>100%</b>	<b>createAccount.js</b>
<b>Create user account with data validation</b>	<b>2</b>	<b>100%</b>	<b>createAccount.js</b>
<b>Improved formatting/UI for create account page</b>	<b>2</b>	<b>100%</b>	<b>createAccount.hbs</b>
<b>Login/logout</b>	<b>2</b>	<b>100%</b>	<b>login.js/logout.js</b>
<b>Register user/Forgot password email</b>	<b>4</b>	<b>100%</b>	<b>recoverAccount.js</b>
<b>Administrator Portal</b>			
<b>Secured by login</b>	<b>1</b>	<b>100%</b>	<b>login.js</b>
<b>List all customers</b>	<b>1</b>	<b>100%</b>	<b>admin.js</b>
<b>List report showing total sales/orders</b>	<b>1</b>	<b>50%</b>	<b>admin.js</b>
<b>Add new product</b>	<b>2</b>	<b>100%</b>	<b>admin.js</b>
<b>Update/delete product</b>	<b>2</b>	<b>100%</b>	<b>admin.js</b>
<b>OR: Upload a photo to database for product</b>	<b>4</b>	<b>100%</b>	<b>admin.js</b>
<b>Add/update warehouse, customer</b>	<b>2</b>		



<b>Professional CSS</b>	<b>?</b>	<b>100%</b>	<b>style.css</b>
<b>Total marks:</b>	<b>67/50</b>		

## System Information:

Pleasebuyourtshirts.xyz is hosted on a linux Ubuntu instance with Apache 2 as the web server. Our application engine is Node JS with Apache acting as the virtual host manager and connection broker for the instance. Our Node modules (for engine functionality) include Express (as the Node web server engine), Handlebars (as the render engine), cookie-session (as the session handler), mysql (as the database manager), nodemailer (as the email recovery service), and multer (for image upload capabilities). The site is run through an SSL certificate provided by Let's Encrypt.

## Web Interface:

PleaseBuyOurTshirts.xyz's landing page consists of a navigation bar, a section based clothing description, and a footer with a site faq. The navigation bar will use CSS animations to accentuate display links relevant to the navigation text that was moused over. The navigation bar will be present on every page, allowing for consistent navigation across the site. The bar also includes search and login elements. The login element will change to a user status display when a user logs in.

The landing page will feature sections with featured shirts presented there. Each section highlights the key features of each shirt and provides a link to the shirt's respective page and a "BUY" button with a price displayed.

Each user has access to their account page that lists their user id, account options, and a logout button (which is also featured in the navigation bar. Users will be able to edit account details here and change personal information.

## Website Walkthrough:

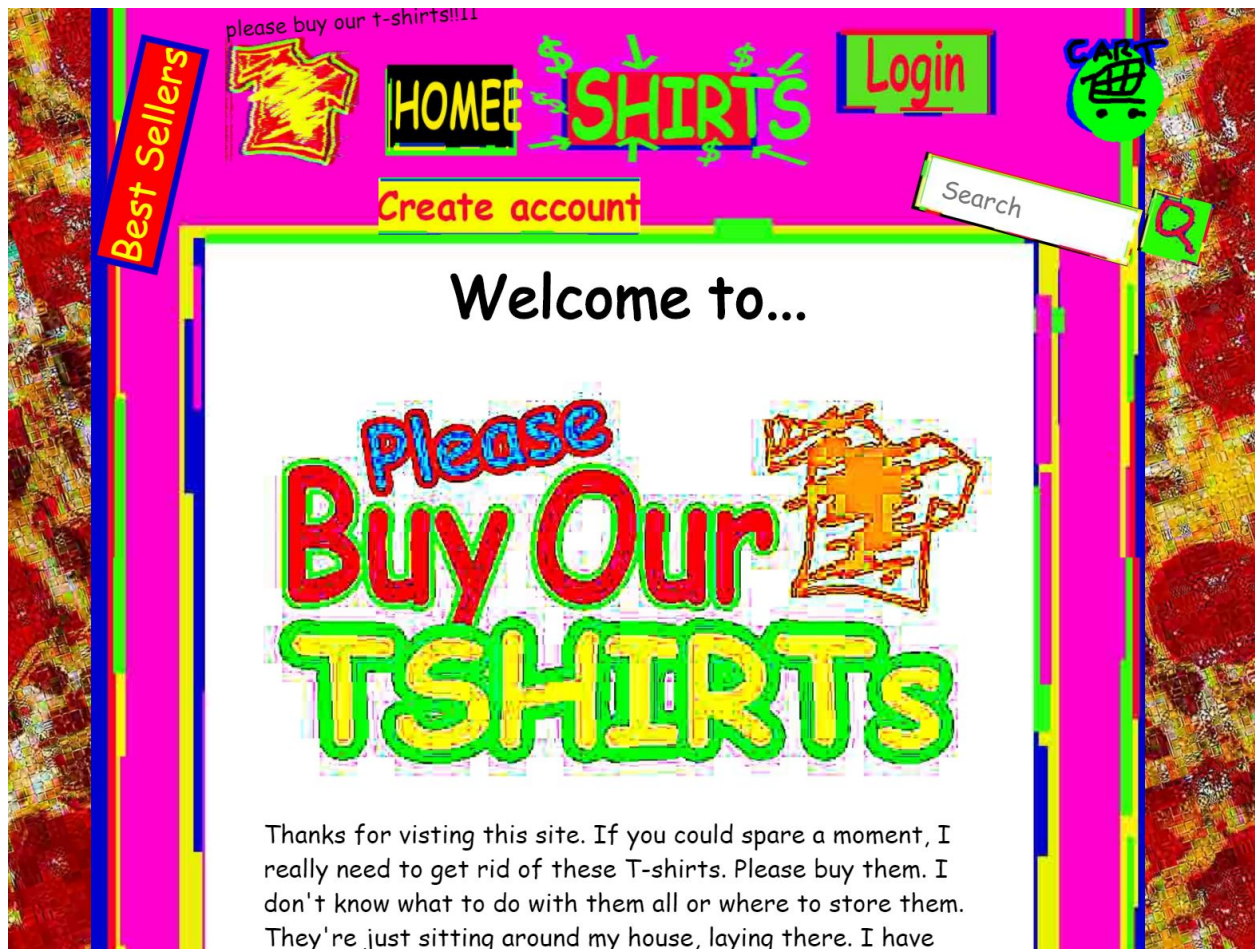
### Home Page:

The website is accessible from the url: <https://pleasebuyourtshirts.xyz>

Admin Username: PBOT-Admin

Admin Password: (removed)

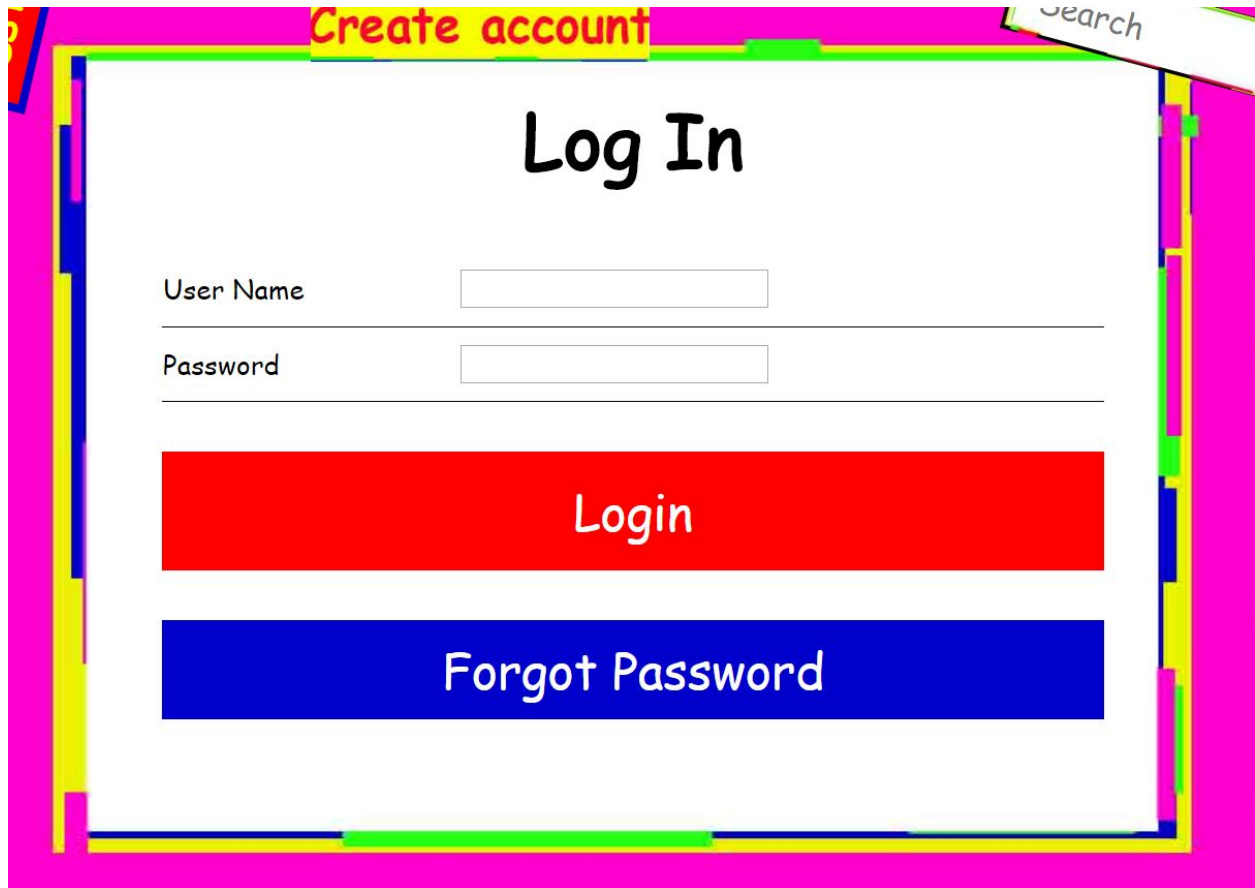
The home page displays a welcome message, the navigation bar for directing users to different parts of our website and a search engine to search the desired shirt by name. As users scroll down the page, writeups on some of the t-shirts available in the store are displayed. Each page on the website chooses from one of three unique backgrounds to display to the visitor.



Pictured: Home page of website. Logo, welcome message, and navbar are visible. The unique "spinning pizza" background is displayed.

### User Options:

All visitors (unregistered guests and users) are allowed to browse, search and add to their cart on pleasebuyourtshirts.xyz. However, upon attempting to checkout they will be redirected and asked to either sign in to a previously created account or create one. Users who have forgotten their password may click the “Forgot Password” button to initiate password recovery. The website will email the user, detailing password recovery information.



Pictured:

### Products and Search:

By clicking on SHIRTS link as it is shown below:



The user can visit all the shirts and products available for purchase.

Users can also browse the products by the name of it through our search engine .



Pictured: The search bar

Users may also add products to their cart. The cart will update to reflect how many items are queued for order.



Pictured: A shopping cart  
with items

### **Checkout:**

Once users are done browsing, searching and adding products to their cart, they can initiate the checkout process.

If the user is logged in they will be redirected to the payment page, otherwise they will be redirected to login page with the option of creating an account (if they are not signed up already).

The image shows a web page with a pink header. On the left, there is a yellow button labeled "Create account". On the right, there is a search bar with the word "search" written inside. The main content area has a white background with the title "Log In" in large black font. Below the title is a light red message box containing the text "you are not logged in, please log in before you make a purchase". Underneath this message are two input fields: "User Name" and "Password". Below the input fields are two buttons: a red button labeled "Login" and a blue button labeled "Forgot Password".

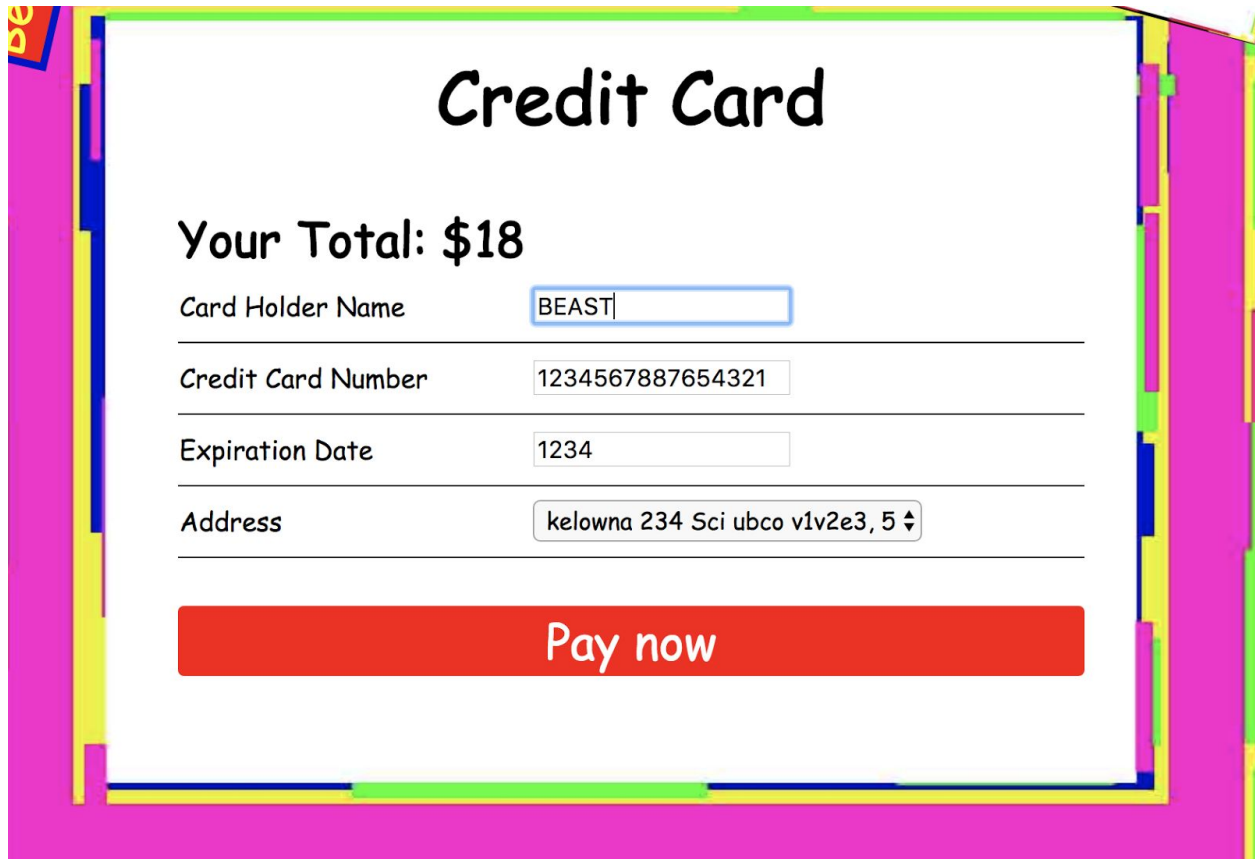
Pictured: Checkout redirection to log in.

If a user is not logged in and wishes to buy a product, they will be redirected here.

If a user is already logged in they'll be redirected to the payment page to choose payment method.



To finish checking out, users will choose a payment method and submit their payment details.



The image shows a web form for credit card payment. The form is titled "Credit Card" and displays "Your Total: \$18". It contains four input fields: "Card Holder Name" with the value "BEAST", "Credit Card Number" with the value "1234567887654321", "Expiration Date" with the value "1234", and "Address" with the value "kelowna 234 Sci ubco v1v2e3, 5". Below the form is a red button labeled "Pay now". The form is set against a white background with a colorful border.

## Credit Card

**Your Total: \$18**

Card Holder Name

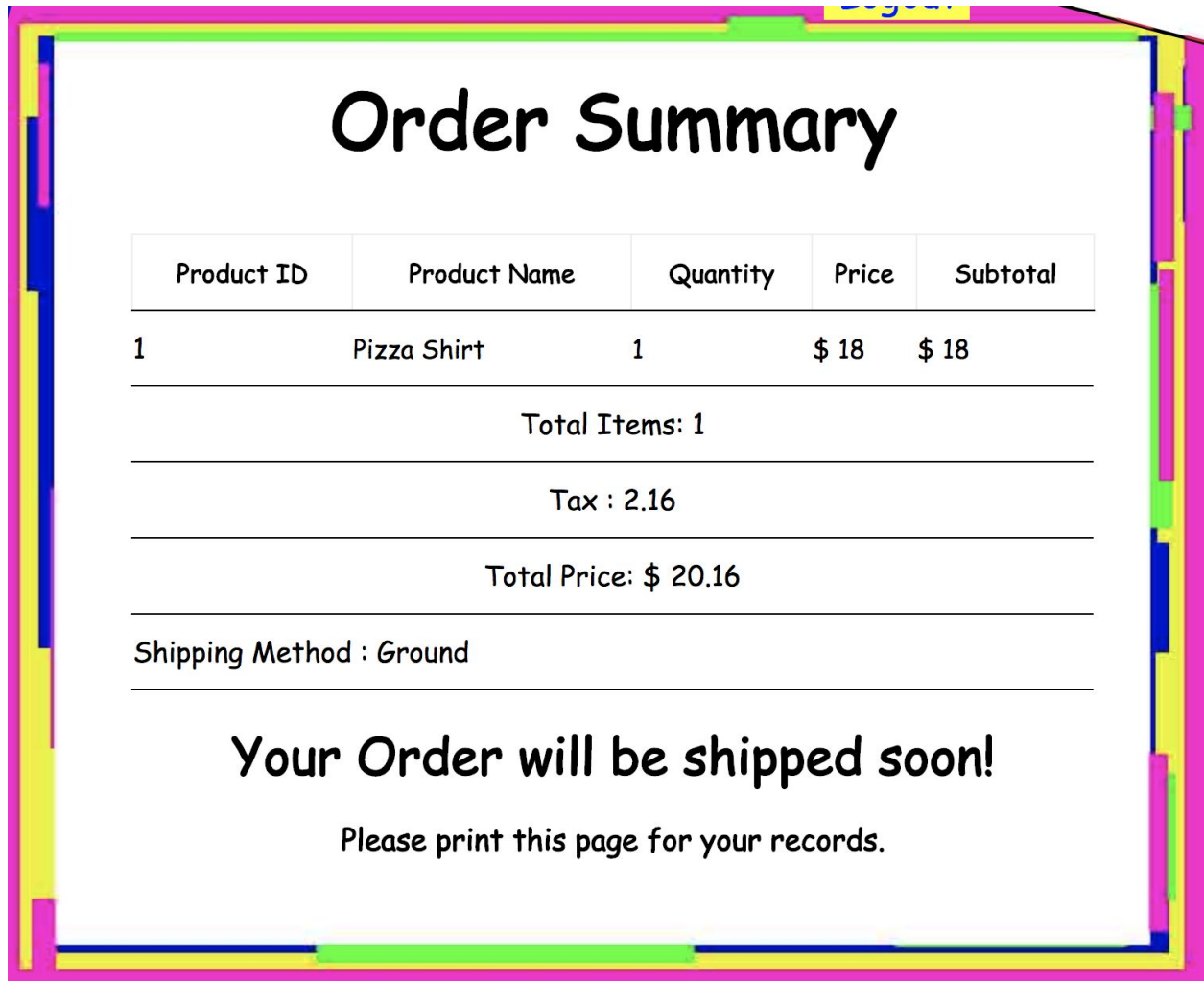
Credit Card Number

Expiration Date

Address

**Pay now**

After completing the checkout, the user will be redirected to the order summary page as it is shown below.



**Order Summary**

Product ID	Product Name	Quantity	Price	Subtotal
1	Pizza Shirt	1	\$ 18	\$ 18

Total Items: 1

Tax : 2.16

Total Price: \$ 20.16

Shipping Method : Ground

**Your Order will be shipped soon!**

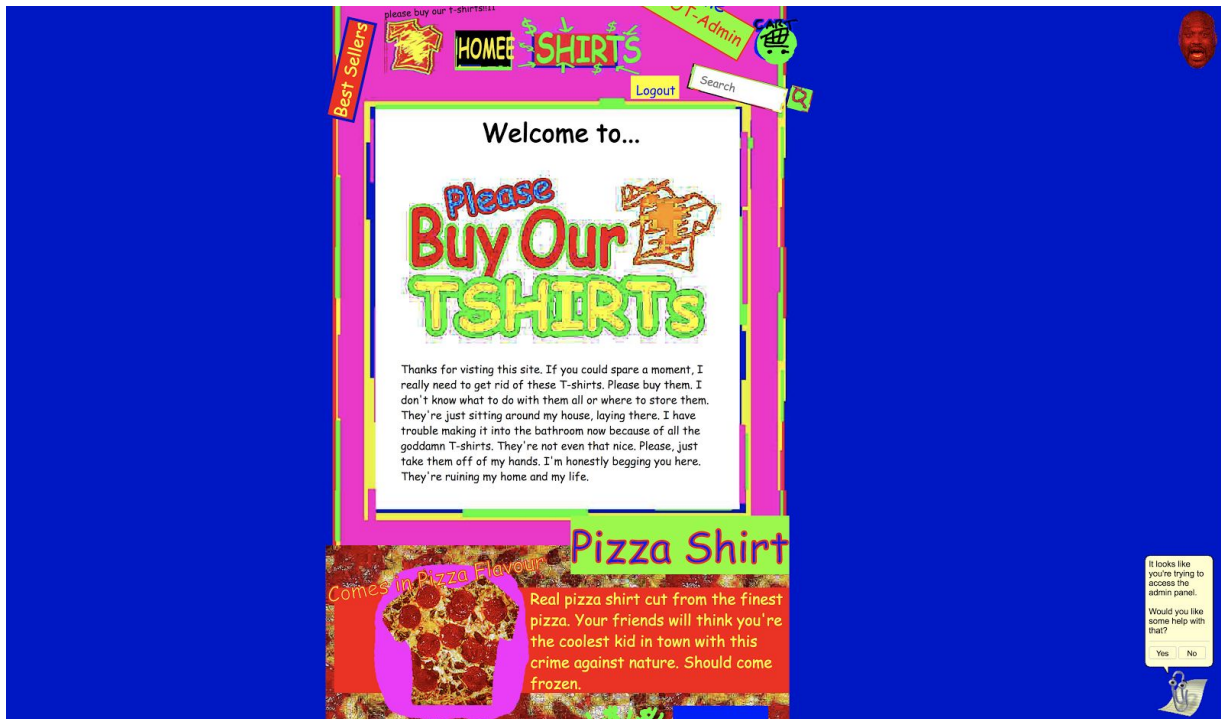
Please print this page for your records.

**Admin Login:**

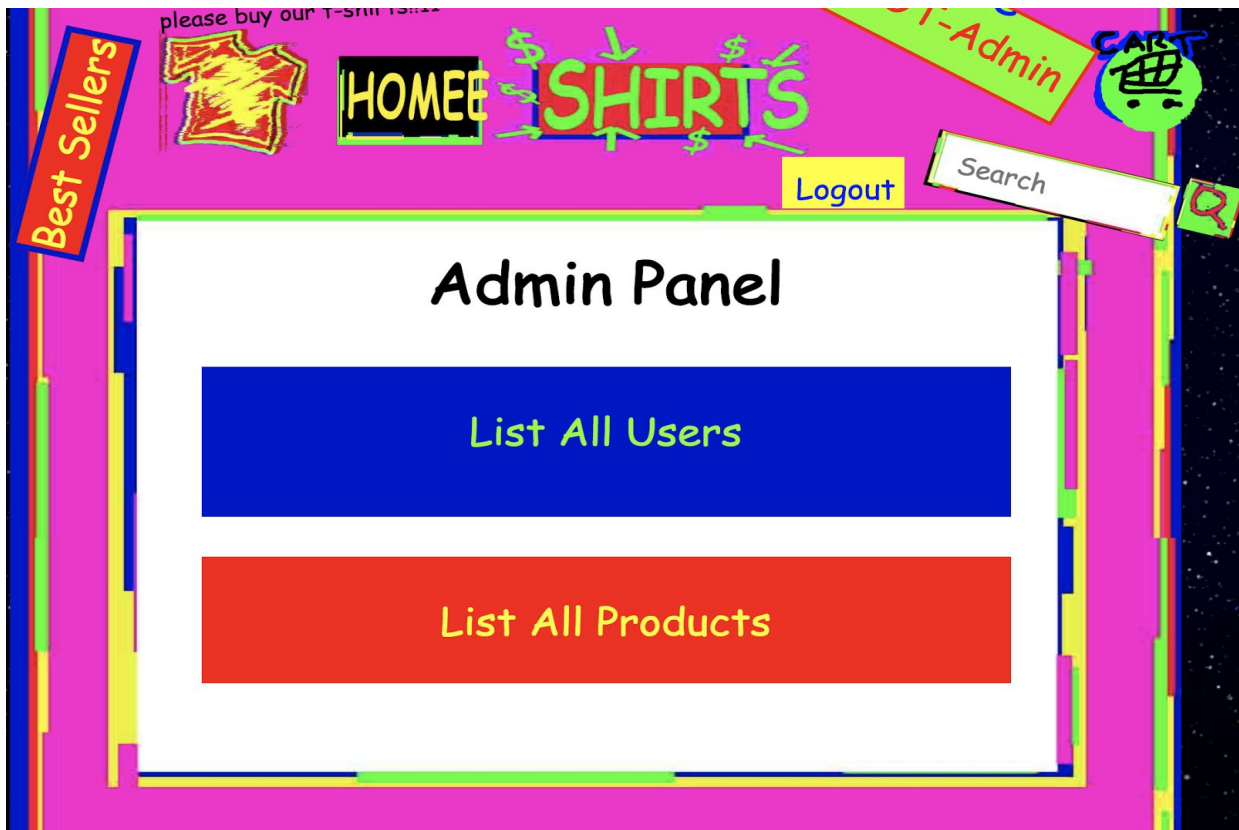
Administrator has many privileges (with the help of Clippy), such as editing an existing product, adding a new product (includes uploading a photo) and viewing a list of the website users.

To access the admin account, please log in as an admin (credentials provided above) and click clippy (pictured below).



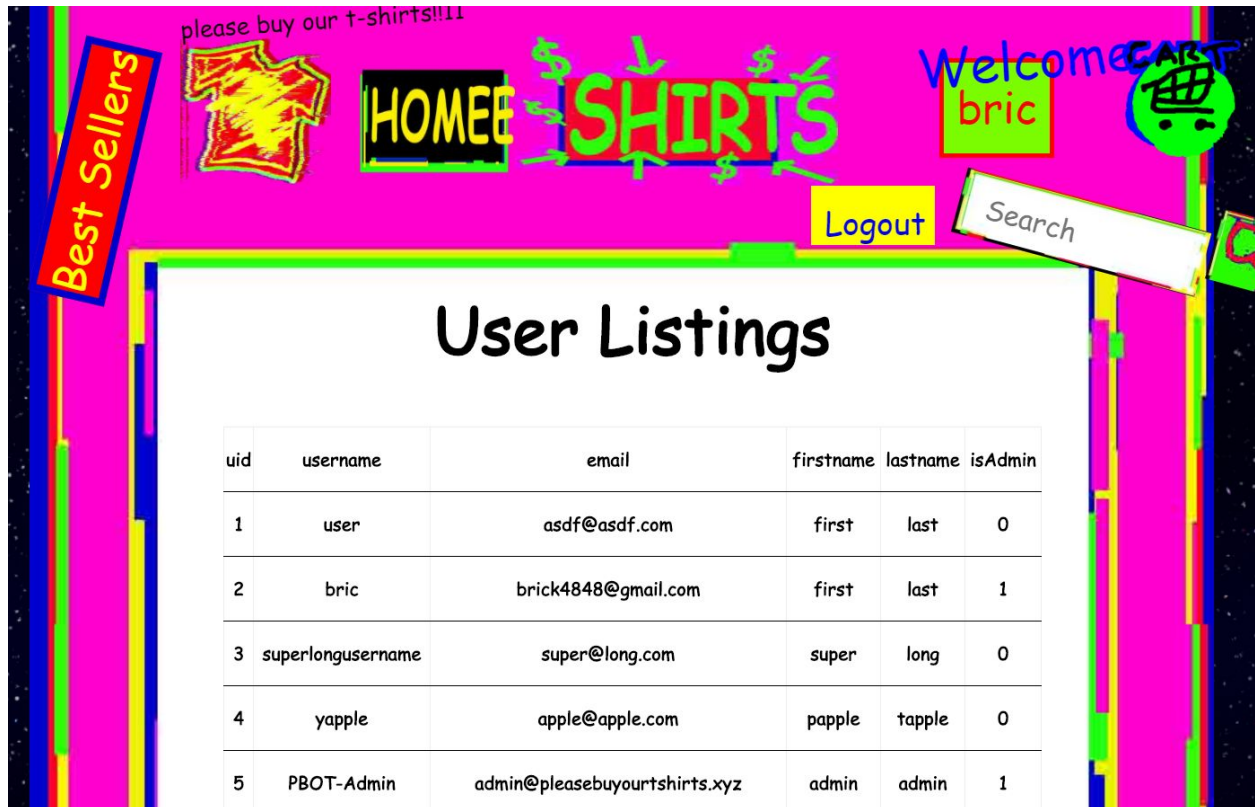


Pictured: Clippy prompting the user for admin panel access



### Admin Listing Users:

In the admin panel, by clicking on the 'List All users' admin will be able to view all users.



The screenshot shows an admin interface for 'Please Buy Our T-Shirts!!!'. The header is vibrant with a pink background and features several elements: a 'Best Sellers' banner, a 'HOME SHIRTS' logo, a 'Welcome bric' message, a 'Logout' button, and a 'Search' input field. The main content area is titled 'User Listings' and contains a table with the following data:

uid	username	email	firstname	lastname	isAdmin
1	user	asdf@asdf.com	first	last	0
2	bric	brick4848@gmail.com	first	last	1
3	superlongusername	super@long.com	super	long	0
4	yapple	apple@apple.com	papple	tapple	0
5	PBOT-Admin	admin@pleasebuyourtshirts.xyz	admin	admin	1

### Admin Listing Product:

Admin can list all products in store with information including the sales amount of each item.

please buy our t-shirts!!!

Best Sellers

HOME SHIRTS

Admin

Logout

Search

**New Product**

PID	Product Name	Price	On Sale	Amount Sold	Size	Color	Stock	View
1	Pizza Shirt	18	0	21	Large	pizza	1149	<a href="#">Edit</a>
2	Burntt Pizza Shirt	20	0	5	Medium	burntt	1532	<a href="#">Edit</a>
3	Sports Shirt	40	0	23	Extra Large	orange	1534	<a href="#">Edit</a>
4	VOID Shirt	2	0	2	Extra Small	black	1843	<a href="#">Edit</a>
5	Red Shirt	234	0	5	Extra Small	red	0	<a href="#">Edit</a>
6	This Website	1	0	5	Extra Small	pizza	0	<a href="#">Edit</a>
9	Deflated Basketball	11	0	32	Medium	orange	21	<a href="#">Edit</a>

### Admin Product Management:

Admin can edit any product by clicking the edit button next to any product.

## Pizza Shirt

Delete

### Values

Info	Current Value	Update Info
PID	1	
Product Name	Pizza Shirt	<input type="text"/>
Price	18	<input type="text"/>
On Sale	0	<input type="checkbox"/>
Amount Sold	21	<input type="text"/>
Size	Large	<input type="text" value="extra small"/>
Color	pizza	<input type="text" value="red"/>
Stock	1149	<input type="text"/>
Has Image	true	<input type="button" value="Choose File"/> No file chosen

Product Description

Freshly cut from the finest pizza. A shirt for real pizza lovers.

Submit

### Tags

Tag

Remove

Add Tag

**Admin Adding new product:**

If the user clicks the “New Product” button:

The image shows a web application interface for creating a new product. The background is a vibrant, multi-colored border. At the top, there's a logo for 'HOME SHIRTS' with a red shirt icon and dollar signs. Navigation elements include 'Best Sellers' (vertical), 'Admin' (green), 'Logout' (yellow), and 'Search' (white). The main form is titled 'Create a New Product' and contains the following fields:

- Product Name:** A text input field.
- Price:** A text input field.
- onSale:** A checkbox.
- Sale Amount:** A text input field.
- Size:** A dropdown menu with 'extra small' selected.
- Color:** A dropdown menu with 'red' selected.
- Quantity:** A text input field.
- Upload an Image:** A file upload button labeled 'Choose File' and the text 'No file chosen'.
- Product Description:** A large text area.

A 'Submit' button is located at the bottom center of the form.

## Site Limitations and Issues:

- An admin account cannot be created through usage of the website
- Products are not actually shipped to users
- Passwords and credit card information are stored as plain text entries on the database
- A user's password is recovered by sending it in plain text to the recovery email
- My team wouldn't let me implement anymore animated backgrounds.