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Final Report



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COSC 304 Introduction to Databases

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Introduction

Purpose of the Final Report

The purpose of this document is to outline the design and implementation of the Dream Weavers website, the Dream Vine by providing the company information, the UML diagram and description, and the site walkthrough.

To access the website, please use this link: <https://cosc304.ok.ubc.ca/12304986/tomcat/Lab10/index.jsp>

If you do not wish to create an account, you can use the following one that has already been created and used for testing purposes.

User Id: arnold

Password: test

Slogan

"There are 24 hours in a day, and we help you make sure no hour of any day goes to waste."

Mission Statement

Founded in 2019, the Dream Weavers' mission is to sell the widest variety and highest quality of dreams to all people across the globe within 2 hours using our efficient and sustainable delivery system so that every person can enjoy every hour of every day of their life.

Executive Summary

The Dream Weavers is an international corporation with various warehouses across the globe. Their "weavers" provide expertise in terms of science and entertainment, offering their services to create the most creative dreams that range in realism and content. We acknowledge that experiencing certain types of dreams come with risks; in the spirit of transparency, all risks are listed in each product's description.

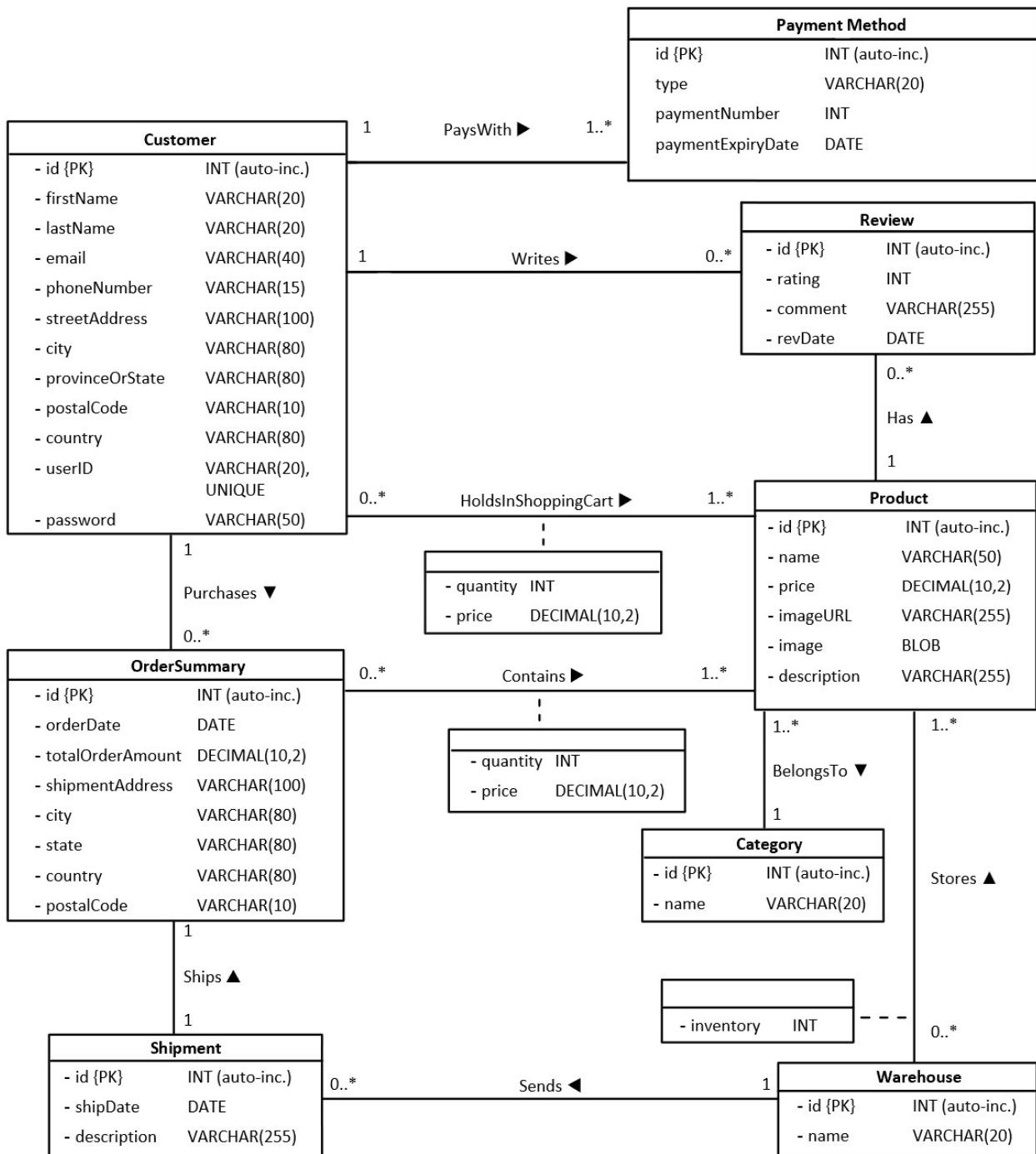
To order a dream, an individual must have access to the Internet and login to our DreamVine website. When purchasing our products, the user acknowledges that they have read the associated risks with each product and consents to the purchase.

To deliver dreams, Dream Bombers, patented solar-powered aerial and marine drones, are located in each warehouse around the world to deliver quality products to any person anywhere within 2 hours.

With the user-friendly review system, we transparently maintain and display the success of our product.

Database Design

UML Diagram



UML Description

Customer

A customer is a potential buyer of Dream Weaver products. They are identified by a unique, auto-incremented ID. The user can choose their username (if it's not already taken), and a password. Upon creating an account, we require the customer's first name, last name, and email address. Once the account has been created and the user is logged in, they can view their order history to see previous orders. The user can also edit their information by going to "Customer Information". Once a customer makes a payment for the first time, they will enter their payment, which is then stored in the database to prompt for later use. If the customer does not wish to use that same payment method on subsequent payments, they can add another card.

Payment Method:

The payment types that the Dream Vine supports are American Express, Visa, and MasterCard. Customers must enter their card number, which is a value consisting of 13-16 digits, as well as the date that the card expires. Once the customer enters a valid payment option, this information is inserted into the paymentMethod relation using the customer's id and is given an auto-incremented payment id.

Product:

The mission of the dream vine is to ensure that no hour of the day goes to waste, which is done through selling dreams. Each dream is identified by an ID. Products also have a name, price, description, and image (gif). When looking at our product list, as user can filter by category and/or utilize the search feature to find a desired dream.

Reviews are displayed to help a user decide if they want to purchase that dream. To see reviews in-depth and the product description, users can click on either the gif or the product name.

Category:

Each product is part of a category (i.e. Animals, Food) to let users filter through dreams. Each product belongs to only one category, but multiple products can belong to a category.

OrderSummary:

Once users have added an item to their cart, are logged in, and provided valid payment information, the customer places their order. Each order has a unique id which is displayed upon successful checkout. This information is later associated with the user so they can review their order history.

Shipment:

Dream Bombers are the Dream Weavers' patented solar-powered aerial and marine drones. They work around the world to deliver quality dreams to any person anywhere within 2 hours. Each shipment is identified by an auto-incremented id number and has a date for when the shipment began its journey. A description identifies what is inside the shipment and is a string that can contain up to 255 characters. A shipment is sent from one warehouse and a warehouse can send as many shipments as it needs.

Warehouse:

Warehouses store Dream Vine products to be shipped once an order has been placed. Each warehouse is identified by an auto-incremented id number and has a name that contains up to 20 characters. A warehouse can store one or more products, and products can be in 0 or more warehouses, meaning that not every warehouse has a specific product. A warehouse also has an inventory to keep track of.

In Cart:

Carts hold items for users. Each cart is identified by an order id and product id. Users can change the quantity of the items in their cart, which adjusts the price. Customers also have the option to remove items from their cart.

Review:

Customers can create a review for a product by going to their order history page. This ensures that only users who have ordered a product can write a review for that product, and that customers can write only one review for each product. Customers provide a rating from 1-5 as well as a comment. The date field is provided for them based on the current day the customer leaves a review.

Relational Schema

Customer(id, firstName, lastName, email, phoneNumber, streetAddress, city, provinceOrState, postalCode, country, userID, password)

PaymentMethod(id, custID, type, paymentNumber, paymentExpiryDate)

Product(id, catID, name, price, imageURL, image, description)

Category(id, name)

OrderSummary(id, shipID, custID, orderDate, totalOrderAmount, shipmentAddress, city, state, country, postalCode)

Shipment(id, wareID, shipDate, description)

Warehouse(id, name)

Review(id, custID, prodID, rating, comment, revDate)

WarehouseProduct(wareID, prodID, inventory)

OrderContents(orderID, prodID, quantity, price)

CustomerCart(custID, prodID, quantity, price)

SQL DDL

```
DROP TABLE review;
DROP TABLE shipment;
DROP TABLE productinventory;
DROP TABLE warehouse;
DROP TABLE orderproduct;
DROP TABLE incart;
DROP TABLE product;
DROP TABLE category;
DROP TABLE ordersummary;
DROP TABLE paymentmethod;
DROP TABLE customer;

CREATE TABLE customer (
    customerId      INT IDENTITY,
    firstName       VARCHAR(40),
    lastName        VARCHAR(40),
    email           VARCHAR(50),
    phonenum        VARCHAR(20),
    address          VARCHAR(50),
    city             VARCHAR(40),
    state            VARCHAR(20),
    postalCode       VARCHAR(20),
    country          VARCHAR(40),
    userid           VARCHAR(20),
    password         VARCHAR(30),
    PRIMARY KEY (customerId)
);
```

```
CREATE TABLE paymentmethod (
    paymentMethodId   INT IDENTITY,
    paymentType       VARCHAR(20),
    paymentNumber     VARCHAR(30),
    paymentExpiryDate DATE,
    customerId        INT,
    PRIMARY KEY (paymentMethodId),
```

```

    FOREIGN KEY (customerId) REFERENCES customer(customerid)
    ON UPDATE CASCADE ON DELETE CASCADE
);

CREATE TABLE ordersummary (
    orderId          INT IDENTITY,
    orderDate        DATETIME,
    totalAmount      DECIMAL(10,2),
    shiptoAddress    VARCHAR(50),
    shiptoCity       VARCHAR(40),
    shiptoState      VARCHAR(20),
    shiptoPostalCode VARCHAR(20),
    shiptoCountry    VARCHAR(40),
    customerId       INT,
    PRIMARY KEY (orderId),
    FOREIGN KEY (customerId) REFERENCES customer(customerid)
    ON UPDATE CASCADE ON DELETE CASCADE
);

CREATE TABLE category (
    categoryId        INT IDENTITY,
    categoryName     VARCHAR(50),
    PRIMARY KEY (categoryId)
);

CREATE TABLE product (
    productId         INT IDENTITY,
    productName       VARCHAR(40),
    productPrice     DECIMAL(10,2),
    productImageURL  VARCHAR(100),
    productImage     VARBINARY(MAX),
    productDesc      VARCHAR(1000),
    categoryId        INT,
    PRIMARY KEY (productId),
    FOREIGN KEY (categoryId) REFERENCES category(categoryId)
);

CREATE TABLE orderproduct (
    orderId          INT,
    productId        INT,
    quantity         INT,
    price            DECIMAL(10,2),
    PRIMARY KEY (orderId, productId),
    FOREIGN KEY (orderId) REFERENCES ordersummary(orderId)
    ON UPDATE CASCADE ON DELETE NO ACTION,
    FOREIGN KEY (productId) REFERENCES product(productId)
    ON UPDATE CASCADE ON DELETE NO ACTION
);

CREATE TABLE incart (
    orderId          INT,
    productId        INT,
    quantity         INT,
    price            DECIMAL(10,2),
    PRIMARY KEY (orderId, productId),
    FOREIGN KEY (orderId) REFERENCES ordersummary(orderId)
    ON UPDATE CASCADE ON DELETE NO ACTION,
    FOREIGN KEY (productId) REFERENCES product(productId)
    ON UPDATE CASCADE ON DELETE NO ACTION
);

CREATE TABLE warehouse (
    warehouseId      INT IDENTITY,
    warehouseName    VARCHAR(30),
    PRIMARY KEY (warehouseId)
);

CREATE TABLE shipment (
    shipmentId       INT IDENTITY,

```

```

shipmentDate      DATETIME,
shipmentDesc     VARCHAR(100),
warehouseId      INT,
PRIMARY KEY (shipmentId),
FOREIGN KEY (warehouseId) REFERENCES warehouse(warehouseId)
    ON UPDATE CASCADE ON DELETE NO ACTION
);

CREATE TABLE productinventory (
    productId        INT,
    warehouseId     INT,
    quantity         INT,
    price            DECIMAL(10,2),
PRIMARY KEY (productId, warehouseId),
FOREIGN KEY (productId) REFERENCES product(productId)
    ON UPDATE CASCADE ON DELETE NO ACTION,
FOREIGN KEY (warehouseId) REFERENCES warehouse(warehouseId)
    ON UPDATE CASCADE ON DELETE NO ACTION
);

CREATE TABLE review (
    reviewId         INT IDENTITY,
    reviewRating     INT,
    reviewDate       DATETIME,
    customerId       INT,
    productId        INT,
    reviewComment    VARCHAR(1000),
PRIMARY KEY (reviewId),
FOREIGN KEY (customerId) REFERENCES customer(customerId)
    ON UPDATE CASCADE ON DELETE CASCADE,
FOREIGN KEY (productId) REFERENCES product(productId)
    ON UPDATE CASCADE ON DELETE CASCADE
);

INSERT INTO category(categoryName) VALUES ('Animals');          -- 1
INSERT INTO category(categoryName) VALUES ('Body');             -- 2
INSERT INTO category(categoryName) VALUES ('Disasters');        -- 3
INSERT INTO category(categoryName) VALUES ('Events');           -- 4
INSERT INTO category(categoryName) VALUES ('Feelings');         -- 5
INSERT INTO category(categoryName) VALUES ('Food');              -- 6
INSERT INTO category(categoryName) VALUES ('Travel');            -- 7
INSERT INTO category(categoryName) VALUES ('Fantasy');           -- 8

INSERT product(productName, categoryId, productDesc, productPrice) VALUES ('A Pet of Your Own', 1, 'Try taking care of a pet. The type of pet depends on what you choose. We recommend choosing an animal.',18.00);
INSERT product(productName, categoryId, productDesc, productPrice) VALUES ('Watch Wildlife',1 , 'Find yourself in a place of your choosing around the world observing wildlife.',19.00);
INSERT product(productName, categoryId, productDesc, productPrice) VALUES ('The Body You Want',2 , 'Find out what it would be like to have the body you want.',10.00);
INSERT product(productName, categoryId, productDesc, productPrice) VALUES ('Earthquake',3,'Experience a natural disaster. Warning: emotional distress may occur.',97.00);
INSERT product(productName, categoryId, productDesc, productPrice) VALUES ('Hurricane',3,'Experience a natural disaster. Warning: emotional distress may occur.',31.00);
INSERT product(productName, categoryId, productDesc, productPrice) VALUES ('Volcanic Eruption',3,'Experience a natural disaster. Warning: emotional distress may occur.',21.00);
INSERT product(productName, categoryId, productDesc, productPrice) VALUES ('First Day of School',4,'Relive or re-invent that first day of school',38.00);
INSERT product(productName, categoryId, productDesc, productPrice) VALUES ('Graduation',4,'Experience the achievement',38.00);
INSERT product(productName, categoryId, productDesc, productPrice) VALUES ('Wedding Day',4,'Prepare for, re-live, or re-invent a wedding experience ',38.00);
INSERT product(productName, categoryId, productDesc, productPrice) VALUES ('Family Gathering',4,'Bring the family together',38.00);
INSERT product(productName, categoryId, productDesc, productPrice) VALUES ('Amorous',5,'Focus on emotions rather than sensations.',38.00);
INSERT product(productName, categoryId, productDesc, productPrice) VALUES ('Annoyed',5,'Focus on emotions rather than sensations.',23.25);

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INSERT product(productId, productName, categoryId, productDesc, productPrice) VALUES ('Depression',5,'Focus on emotions rather than sensations. For educational purposes only.',17.45);
INSERT product(productId, productName, categoryId, productDesc, productPrice) VALUES ('Embarassment',5,'Focus on emotions rather than sensations',39.00);
INSERT product(productId, productName, categoryId, productDesc, productPrice) VALUES ('Envy',5,'Focus on emotions rather than sensations.',62.50);
INSERT product(productId, productName, categoryId, productDesc, productPrice) VALUES ('Joy',5,'Focus on emotions rather than sensations.',9.20);
INSERT product(productId, productName, categoryId, productDesc, productPrice) VALUES ('Pride',5,'Focus on emotions rather than sensations.',81.00);
INSERT product(productId, productName, categoryId, productDesc, productPrice) VALUES ('Your Favorite Meal',6,'Re-live or re-invent your favorite meal',21.00);
INSERT product(productId, productName, categoryId, productDesc, productPrice) VALUES ('Family Dinner',6,'Sometimes it''s not just the food. It''s the people you''re eating with.',14.00);
INSERT product(productId, productName, categoryId, productDesc, productPrice) VALUES ('Savory Cuisine',6,'Try some new food or enjoy what you love',18.00);
INSERT product(productId, productName, categoryId, productDesc, productPrice) VALUES ('Fine Cuisine',6, 'Try some new food or enjoy what you love',19.00);
INSERT product(productId, productName, categoryId, productDesc, productPrice) VALUES ('Baked Goods',6,'Try some new food or enjoy what you love',18.40);
INSERT product(productId, productName, categoryId, productDesc, productPrice) VALUES ('Breakfast',6,'Try something new or enjoy what you love',9.65);
INSERT product(productId, productName, categoryId, productDesc, productPrice) VALUES ('Vacation',7,'Go on the vacation of your dreams',21.05);
INSERT product(productId, productName, categoryId, productDesc, productPrice) VALUES ('Business Trip',7,'Practice for that important business trip',14.00);
INSERT product(productId, productName, categoryId, productDesc, productPrice) VALUES ('Fly on a Plane',7,'Experience flight',14.00);
INSERT product(productId, productName, categoryId, productDesc, productPrice) VALUES ('Ride a Train',7,'Experience a train ride',14.00);
INSERT product(productId, productName, categoryId, productDesc, productPrice) VALUES ('Sail on a Boat',7,'Experience sailing',14.00);
INSERT product(productId, productName, categoryId, productDesc, productPrice) VALUES ('Drive a Vehicle',7,'Go for a test drive',14.00);
INSERT product(productId, productName, categoryId, productDesc, productPrice) VALUES ('Superpower ',8,'Try out different superpowers',14.00);
INSERT product(productId, productName, categoryId, productDesc, productPrice) VALUES ('Fantasy World',8,'Experience the world of one or a combination of your favorite books or games',14.00);
INSERT product(productId, productName, categoryId, productDesc, productPrice) VALUES ('Flying',8,'Try flying with no help from planes or other devices',50.00);

INSERT INTO customer (firstName, lastName, email, phonenum, address, city, state, postalCode, country, userid, password) VALUES ('Arnold', 'Anderson', 'a.anderson@gmail.com', '204-111-2222', '103 AnyWhere Street', 'Winnipeg', 'MB', 'R3X 4T1', 'Canada', 'arnold' , 'test');
INSERT INTO customer (firstName, lastName, email, phonenum, address, city, state, postalCode, country, userid, password) VALUES ('Bobby', 'Brown', 'bobby.brown@hotmail.ca', '572-342-8911', '222 Bush Avenue', 'Boston', 'MA', '22222', 'United States', 'bobby' , 'bobby');
INSERT INTO customer (firstName, lastName, email, phonenum, address, city, state, postalCode, country, userid, password) VALUES ('Candace', 'Cole', 'cole@charity.org', '333-444-5555', '333 Central Crescent', 'Chicago', 'IL', '33333', 'United States', 'candace' , 'password');
INSERT INTO customer (firstName, lastName, email, phonenum, address, city, state, postalCode, country, userid, password) VALUES ('Darren', 'Doe', 'oe@doe.com', '250-807-2222', '444 Dover Lane', 'Kelowna', 'BC', 'V1V 2X9', 'Canada', 'darren' , 'pw');
INSERT INTO customer (firstName, lastName, email, phonenum, address, city, state, postalCode, country, userid, password) VALUES ('Elizabeth', 'Elliott', 'engel@uiowa.edu', '555-666-7777', '555 Everwood Street', 'Iowa City', 'IA', '52241', 'United States', 'beth' , 'test');

-- Start: ENTRIES FOR TESTING PURPOSES
INSERT INTO review (reviewRating, reviewDate, customerId, productId, reviewComment) VALUES (3, '2019-11-25', 1, 1, "It was alright.");

DECLARE @orderId int
INSERT INTO ordersummary (customerId, orderDate, totalAmount) VALUES (1, '2019-10-15 10:25:55', 91.70)
SELECT @orderId = @@IDENTITY
INSERT INTO orderproduct (orderId, productId, quantity, price) VALUES (@orderId, 1, 1, 18)
INSERT INTO orderproduct (orderId, productId, quantity, price) VALUES (@orderId, 5, 2, 21.35)
INSERT INTO orderproduct (orderId, productId, quantity, price) VALUES (@orderId, 10, 1, 31);

```

```

DECLARE @orderId int
INSERT INTO ordersummary (customerId, orderDate, totalAmount) VALUES (2, '2019-10-16 18:00:00', 106.75)
SELECT @orderId = @@IDENTITY
INSERT INTO orderproduct (orderId, productId, quantity, price) VALUES (@orderId, 5, 5, 21.35);

DECLARE @orderId int
INSERT INTO ordersummary (customerId, orderDate, totalAmount) VALUES (3, '2019-10-15 3:30:22', 140)
SELECT @orderId = @@IDENTITY
INSERT INTO orderproduct (orderId, productId, quantity, price) VALUES (@orderId, 6, 2, 25)
INSERT INTO orderproduct (orderId, productId, quantity, price) VALUES (@orderId, 7, 3, 30);

DECLARE @orderId int
INSERT INTO ordersummary (customerId, orderDate, totalAmount) VALUES (2, '2019-10-17 05:45:11', 327.85)
SELECT @orderId = @@IDENTITY
INSERT INTO orderproduct (orderId, productId, quantity, price) VALUES (@orderId, 3, 4, 10)
INSERT INTO orderproduct (orderId, productId, quantity, price) VALUES (@orderId, 8, 3, 40)
INSERT INTO orderproduct (orderId, productId, quantity, price) VALUES (@orderId, 13, 3, 23.25)
INSERT INTO orderproduct (orderId, productId, quantity, price) VALUES (@orderId, 28, 2, 21.05)
INSERT INTO orderproduct (orderId, productId, quantity, price) VALUES (@orderId, 29, 4, 14);

DECLARE @orderId int
INSERT INTO ordersummary (customerId, orderDate, totalAmount) VALUES (5, '2019-10-15 10:25:55', 277.40)
SELECT @orderId = @@IDENTITY
INSERT INTO orderproduct (orderId, productId, quantity, price) VALUES (@orderId, 5, 4, 21.35)
INSERT INTO orderproduct (orderId, productId, quantity, price) VALUES (@orderId, 19, 2, 81)
INSERT INTO orderproduct (orderId, productId, quantity, price) VALUES (@orderId, 20, 3, 10);
-- End: DATA FOR TESTING PURPOSES

-- Product images
UPDATE Product SET productImageURL = 'img/petOfOwn.gif' WHERE productId = 1;
UPDATE Product SET productImageURL = 'img/watchingWildlife.gif' WHERE productId = 2;
UPDATE Product SET productImageURL = 'img/bodyYouWant.gif' WHERE productId = 3;
UPDATE Product SET productImageURL = 'img/earthquake.gif' WHERE productId = 4;
UPDATE Product SET productImageURL = 'img/hurricane.gif' WHERE productId = 5;
UPDATE Product SET productImageURL = 'img/volcano.gif' WHERE productId = 6;
UPDATE Product SET productImageURL = 'img/firstDaySchool.gif' WHERE productId = 7;
UPDATE Product SET productImageURL = 'img/graduation.gif' WHERE productId = 8;
UPDATE Product SET productImageURL = 'img/wedding.gif' WHERE productId = 9;
UPDATE Product SET productImageURL = 'img/familyGathering.gif' WHERE productId = 10;
UPDATE Product SET productImageURL = 'img/amorous.gif' WHERE productId = 11;
UPDATE Product SET productImageURL = 'img/annoyed.gif' WHERE productId = 12;
UPDATE Product SET productImageURL = 'img/depression.gif' WHERE productId = 13;
UPDATE Product SET productImageURL = 'img/embarassment.gif' WHERE productId = 14;
UPDATE Product SET productImageURL = 'img/envy.gif' WHERE productId = 15;
UPDATE Product SET productImageURL = 'img/joy.gif' WHERE productId = 16;
UPDATE Product SET productImageURL = 'img/pride.gif' WHERE productId = 17;
UPDATE Product SET productImageURL = 'img/hotDog.gif' WHERE productId = 18;
UPDATE Product SET productImageURL = 'img/familyDinner.gif' WHERE productId = 19;
UPDATE Product SET productImageURL = 'img/savoryCuisine.gif' WHERE productId = 20;
UPDATE Product SET productImageURL = 'img/fineCuisine.gif' WHERE productId = 21;
UPDATE Product SET productImageURL = 'img/bakedGoods.gif' WHERE productId = 22;
UPDATE Product SET productImageURL = 'img/breakfast.gif' WHERE productId = 23;
UPDATE Product SET productImageURL = 'img/vacation.gif' WHERE productId = 24;
UPDATE Product SET productImageURL = 'img/businessTrip.gif' WHERE productId = 25;
UPDATE Product SET productImageURL = 'img/flyPlane.gif' WHERE productId = 26;
UPDATE Product SET productImageURL = 'img/rideTrain.gif' WHERE productId = 27;
UPDATE Product SET productImageURL = 'img/sailBoat.gif' WHERE productId = 28;
UPDATE Product SET productImageURL = 'img/driveVehicle.gif' WHERE productId = 29;
UPDATE Product SET productImageURL = 'img/superpower.gif' WHERE productId = 30;
UPDATE Product SET productImageURL = 'img/fantasyWorld.gif' WHERE productId = 31;

UPDATE Product SET productImageURL = 'img/flying.gif' WHERE productId = 32;

```

Site Map and Walkthrough

Note: every page shows the header with the navigation bar; however, for clearer images, the header with the navigation bar will not be included in all screenshots.

Main Page

Index

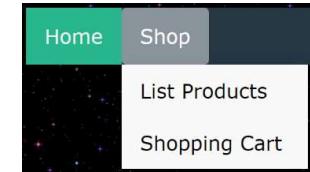


On the main page, users are introduced to the company name (Dream Weavers), logo, website name (Dream Vine), motto, and the main concept behind the company.

The header contains a navigation bar with a dropdown menu so that the customer can choose their next step.

On the left side of the header, the customer can choose to look at the products available or look at the shopping cart.

On the right side, the user is asked to either create an account or log in.



User Accounts

Create an account

A screenshot of the "Create an Account" page. The header includes a "Create an Account" link and a "Log in" link. Below the header, a message says "Already have an account? Click 'Log in' to access your account". A note below that says "Please fill in the following fields to create your account on the Dream Vine: All fields marked with an asterisk (*) are required." The form itself consists of several input fields: "User id*" (with a placeholder "Choose a user id (this cannot be changed later)"), "Password*" (placeholder "Choose a secure password"), "First Name*" (placeholder "Your first name"), "Last Name*" (placeholder "Your last name"), "Email*" (placeholder "Your email address"), "Phone Number*" (placeholder "020-123-4567"), "Street Address" (placeholder "Your street address"), "City" (placeholder "City"), "Province/State" (placeholder "Province or state"), "Postal Code" (placeholder "Your postal code or zip code"), and "Country" (placeholder "Country"). At the bottom of the form is a green "Create Account" button.

Although not included in the screenshot, the logo remains at the top of the page.

The Create an Account page prompts the user in case they already have an account.

Below the prompt, the page contains a form for the customer to fill out, which asks for a user id, password, first name, last name, email address, phone number, street address, city, province/state, postal code, and country. Each entry on this form has data validation. For example, the password must be at least six characters long and the phone number must be in the format XXX-XXX-XXXX. The first five fields are required so that we can add a "forgot password" feature later that asks for these items.

Once the user fills out the form, they can press the button "Create Account" to go to the next page.

Some data validation occurs before connecting to the server. These validations include required fields and the number, type, and pattern of characters.



There is an extra set of data validation, such as checking if the user id has already been used. Once the user clicks “Create Account” the page will reload with an error message explaining why the system was unable to complete the request with the provided information.



Once the customer fills out the fields correctly, picks a user id that was not already in use, and clicks “Create Account” the customer will arrive at this page that says they have successfully created an account. The customer is then prompted to log in to begin shopping.

Login page



If the customer already has an account, they can log in using the button in the right side of the navigation bar. The customer is also prompted to log in when they try to access pages when they do not have authorization to access them before logging in.

On the login page, the user is asked for their user id and password.

If the user attempts to log in, but their user id and/or password is incorrect. The system will return to the login screen with a message.



After the customer logs in successfully, the customer is brought to the main page with their name displayed in the welcome message.

The navigation bar also shows more access to the website. The Admin dropdown section now shows, the customer's account dropdown section now shows, and the log in button is now a log out button.

The customer's name will now also be included in the navigation bar on every page.

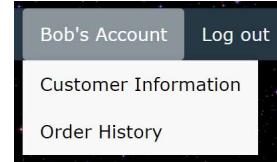
Customer information

The screenshot shows the "Bob's Customer Profile" page. At the top, there is a logo for "Dream Weavers Paint" and a navigation bar with links for "Home", "Shop", "Admin", "Bob's Account", and "Log out". Below the navigation, the title "Bob's Customer Profile" is displayed. A note says "Please take note of your customer id. This is required when purchasing products." Below this, a table lists customer details:

Customer Id	13
User Id	BobRoss
First Name	Bob
Last Name	Ross
Email	bobross@paint.com
Phone	123-123-1234
Address	123 Street
City	Huntington
State	Indiana
Postal Code	47306
Country	United States

At the bottom right of the form is a "edit" button.

Under the “Customer’s Account” dropdown menu, the customer will find the button to navigate to their “Customer Information” page.



The customer can review their information and is presented with a customer id, which is required when making purchases.

The screenshot shows the "Edit Bob's Customer Profile" page. At the top, there is a navigation bar with links for "Home", "Shop", "Admin", "Bob's Account", and "Log out". Below the navigation, the title "Edit Bob's Customer Profile" is displayed. The form contains the same customer information fields as the previous screenshot, but they are all disabled (grayed out). The "Customer Id" field has the value "13" and the "User Id" field has the value "BobRoss". At the bottom right of the form is a "Update" button.

If the customer wants to edit their information, the customer can click on the edit button and go to the edit profile page.

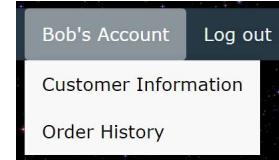
Here, the customer id and user id fields are disabled in the form. The customer id must be disabled because it is the primary key in the database. As for the user id, the decision to disable it was for customer experience reasons.

Once the customer is satisfied with their updates, they can click on “Update” at the bottom of the screen. The new information will be presented on the refreshed page.

Order history

Order Id	Order Date	Customer Id	Customer Name	Product Name	Quantity	Price	Total
1	2019-10-15 10:25:55	1	Arnold Anderson	A Pet of Your Own	1	\$18.00	\$18.00
				Hurricane	2	\$21.35	\$42.70
				Family Gathering	1	\$31.00	\$31.00
8	2019-11-28 16:15:44	1	Arnold Anderson	A Pet of Your Own	1	\$18.00	\$18.00
9	2019-11-28 16:32:43	1	Arnold Anderson	The Body You Want	1	\$10.00	\$10.00
				Volcanic Eruption	1	\$21.00	\$21.00
10	2019-11-28 16:35:11	1	Arnold Anderson	Joy	1	\$9.20	\$9.20

Under the “Customer’s Account” dropdown menu, the customer will find the button to navigate to their “Order History” page.



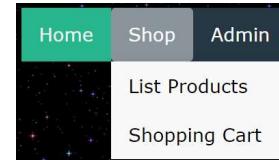
If the customer has not made any previous orders, the table is empty. If the customer has at least one previous order, the customer can see the details of their order here. If the customer has not reviewed a product, the “Review this product” button will show. If the customer has reviewed a product, the rating will be listed. With this system, a customer cannot review a product more than once.

Shop

Product List

Product Name	Category	Rating	Price
A Pet of Your Own	Animals	3.0/5	CAD\$18.00
Watch Wildlife	Nature	4.0/5	CAD\$19.00
The Body You Want	The Body You Want	4.0/5	CAD\$18.00
Earthquake	Disasters	Rating: 0.0/5	CAD\$17.00
Hurricane	Disasters	Rating: 0.0/5	CAD\$31.00
First Day of School	Events	Rating: 0.0/5	CAD\$21.00

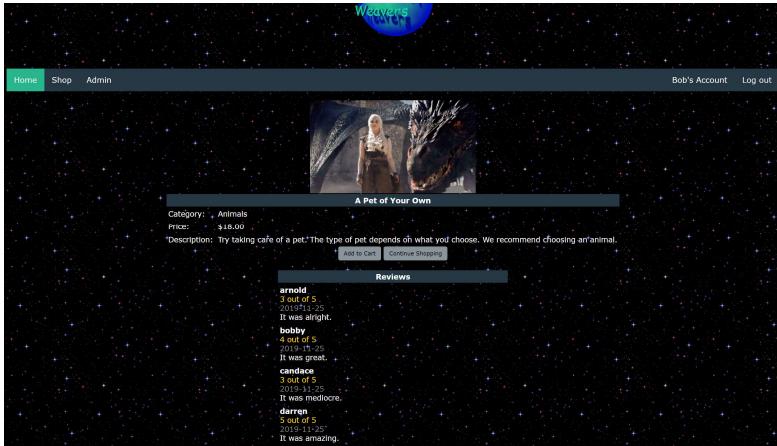
Under the “Shop” dropdown menu, the customer will find the button to navigate to “List Products”



On this page, the customer will find a list of all products that the shop currently offers. In this list, a sample picture is provided along with the product name, the category it belongs to, its average rating, its price in Canadian dollars, and a button to add the item to the Shopping Cart.

The customer can also filter or search for an item using a category dropdown list and/or the product name search box.

Product Page

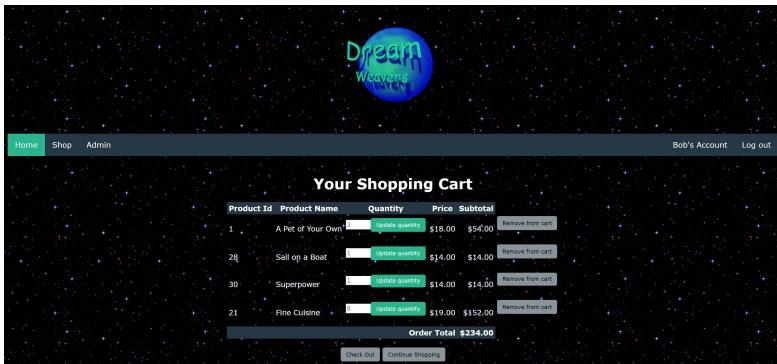


On the “Product List” page, the customer can click on either the product image or product name to go to that specific product’s page.

Here, the customer can see the product image, product name, category, price, and description. Below the product information, the customer can choose to add the product to their shopping cart or to go back to the “Product List” page to continue shopping.

There is also a review section for each product. Here, the user id of the customer who reviewed it shows publicly. The rating out of five is shown in gold, the date when the review was made is in grey, and the review comment is shown below it.

Shopping Cart



Under the “Shop” dropdown menu in the navigation bar, the customer can access the shopping cart. As well, each time the customer adds an item to their shopping cart, the customer is shown their updated shopping cart.

On the “Shopping Cart” page, the customer can see the cart associated with their Internet browser session. The customer can choose to update the quantity of the products in their cart by entering in a new quantity and updating it. The quantity has data validation where the number entered must be between 1 and 50, inclusive. If the customer wishes to remove the product from their cart, the “Remove from cart” button is on the right side. The maximum quantity of 50 exists due to the capacity of the shipping drones.

Checkout Process

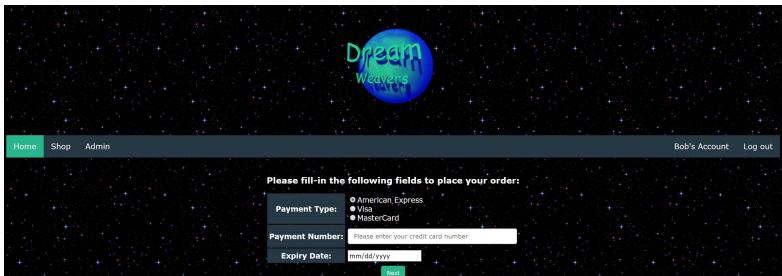
Checkout



When the customer is ready to check out, the customer can click on the "Check Out" button on the shopping cart page.

The first page of the check-out process requires the customer to enter their customer id and password as a security measure.

Payment Method



The next page depends on if the customer has a previous payment method associated with their account.

If this is their first time shopping, they have not yet specified a payment method, so it will come to this page.

Here, the customer must fill out the following fields. Radio buttons have a payment type automatically selected, so that the field is required. The payment number has data validation where the value must contain 13-16 digits. The expiry date is limited from selecting a date before today.

If the customer has already put through an order, there will be a payment method associated with the customer's account.

In this case, the customer can choose to use another card or to pay with the current card on their account.



Order Summary

The screenshot shows the "Your Order Summary" page. At the top, there's a logo for "Dream Weavers". Below it, a navigation bar with "Home", "Shop", "Admin", "Bob's Account", and "Log out". The main content area is titled "Your Order Summary" and contains a table of purchased items:

Product Id	Product Name	Quantity	Price	Subtotal
1	A Pig of Your Own	3	\$14.00	\$42.00
20	Sell on a Boat	1	\$14.00	\$14.00
30	Superpower	1	\$14.00	\$14.00
+24	Fine Cutane	0	\$19.00	\$0.00
Order Total: \$234.00				

Below the table, a message says "Your order reference number is 29" and "Shipping to Bob Rose (customer Id: 13)". A footer note states: "Order Completed. Your order will arrive within 2 hours via our sustainable and efficient Dream Bombers*. *Dream Bombers are the DreamWeaver patented solar powered aerial and remote drones, which are located in each warehouse around the world to deliver quality drones to one person anywhere within 2 hours."

After entering a payment method, the customer then selects “Next” and the order is processed.

The “Order Summary” page lists the products purchased, similar in layout to the shopping cart, and below the list of products is the order reference number and the customer information.

A final message to the customer is presented explaining that the order is complete and that the customer should expect their order to arrive within 2 hours via drone.

Reviews

The screenshot shows the "Write a Review" page. At the top, there's a logo for "Dream Weavers". Below it, a navigation bar with "Home", "Shop", "Admin", "Arnold's Account", and "Log out". The main content area is titled "Write a Review" and contains a form with instructions: "Please fill-in the following fields to rate Hurricane". It includes fields for "Rating" (with options 1, 2, 3, 4, 5), "Date" (disabled at "2019-11-30"), "Comment" (text area with placeholder "Enter your comment here..."), and a "Submit" button.

This feature is currently under construction

Customers can read reviews provided by other customers on each product's page.

To leave a review, the customer must go to their order history and click the button “Review this product” if they have not already done so.

On the “Write a Review” page, the customer is asked to fill in the fields to rate the product.

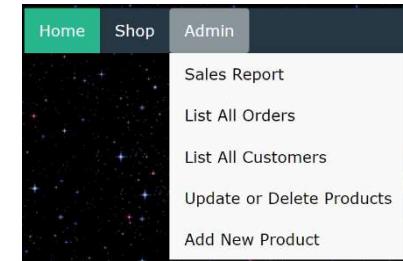
The rating is limited to the numbers 1 to 5, inclusive. The date is today's date and is disabled so that the customer cannot change it. The comment is not data validated so as to let the customer describe it however they would like.

Administrator Portal

This feature is currently under construction

The feature to distinguish a customer from an administrator is still under construction; however, the features are available to view for the purposes displaying reports.

Under the “Admin” dropdown menu, the administrator will find the button to navigate to each of the following sections.



Sales Report

A screenshot of a web page titled "Administrator Sales Report by Day". At the top, there's a navigation bar with "Home", "Shop", "Admin" (highlighted in green), "Arnold's Account", and "Log out". Below the title is a table with columns "Order Date", "Total Order Amount", and "Product". The data shows sales for various dates in October and November 2019. The last row shows a total amount of \$416.00.

Under the “Admin” dropdown menu, on the “Sales Report” page, the administrator can see a sales report by day.

List All Orders

A screenshot of a web page titled "Dream Vine Order List". At the top, there's a navigation bar with "Home", "Shop", "Admin" (highlighted in green), "Arnold's Account", and "Log out". Below the title, a message says "Special thanks to Arnold Anderson for his relentless testing of our Dream Vine". A table titled "Order Summary" lists orders with columns for Order Id, Order Date, Customer Id, Customer Name, Product Id, Quantity, Price, and Total Amount. The table contains five rows of order details.

Under the “Admin” dropdown menu, on the “List All Orders” page, the administrator can see a summary of all orders that customers have placed.

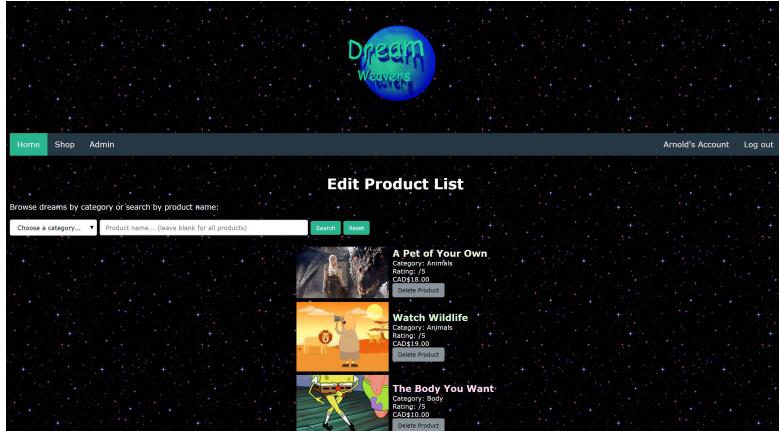
List All Customers



Customer Id	First Name	Last Name	Email	Phone	Address	City	State	Postal Code	Country	User Id	
1	Arnold	Anderson	a.anderson@mail.com	204-111-2222	New York	R3X 4ST	hehehe	arnold			
2	Bobby	Brown	bobby.brown@frontmail.ca	572-342-8911	222 Bush Avenue	Boston	MA	22222	United States	bobby	
3	Candace	Cole	cole@charity.org	333-444-5555	333 Central Crescent	Chicago	IL	33333	United States	candace	
4	Darren	Doe	oe@oe.com	234-567-8901	444 Doveline	Kelowna	BC	V1V 2Z9	Canada	darren	
5	Elizabeth	Elliott	elliott@elloweb.edu	333-666-7777	123 Everwood Street	Hillside City	CA	12345-1234	United States	beth	
6	M.	K@visionsaries.dreamweavers.com	250-123-1234	123 Cloud Ave	Kelowna	BC	V1V 2X9	Canada	m		
7	T.	U	T@visionsaries.dreamweavers.com	250-123-1234	123 Holographic Ave	Kelowna	BC	V1V 2X9	Canada	t	
8	V.	J.	V@visionsaries.dreamweavers.com	250-123-1234	123 Hole 11	Shire	ME	Z1V X9X	Canada	v	
9	J.	H.	J@visionsaries.dreamweavers.com	250-123-1234	123 Aspiration Lane	Kelowna	BC	V1V 2X9	Canada	j	
10	Ellie	Joel	ver@jc.com	1111111111	123 Aspiration Lane	Kelowna	BC	V1V 2X9	Canada	ellejoel	
11	Test	TestingAgain	email@gmail.com							test5000	
12	Daniella	Vermulen	a@b.com	123-456-7890	a	b				daniella	
13	Bob	Ross	bobross@paint.com	123-123-1234	123 Street	Muncie	Indiana	47306	United States	BobRoss	
14	wdsc	dates	dates@as.com	111-111-1111	weds	weds	wca	sacsec	wac	1212	

Under the “Admin” dropdown menu, on the “List All Customers” page, the administrator can see a list of all customers but not their passwords.

Update or Delete Products



Edit Product List					
Browse dreams by category or search by product name:					
Choose a category...	product name... (leave blank for all products)	<input type="button" value="Search"/>	<input type="button" value="Reset"/>		
 A Pet of Your Own Category: Animals Rating: 4.5 CAD\$18.00 <input type="button" value="Delete Product"/>					
 Watch Wildlife Category: Animals Rating: 4.5 CAD\$15.00 <input type="button" value="Delete Product"/>					
 The Body You Want Category: Body Rating: 4.5 CAD\$12.00 <input type="button" value="Delete Product"/>					

Under the “Admin” dropdown menu, on the “Update or Delete Products” page, the administrator is brought to a page similar to the product list page. All products are listed and the administrator can search for specific products or scroll through the page.

To delete a product, the administrator can press the “Delete Product” button.

This feature is currently under construction.

To edit a product, the administrator can click on the product image or product name, and then the name, price, and description can be changed.

Add New Product



The screenshot shows the 'Add a new product' page of the Dream Weaving website. At the top, there is a navigation bar with links for 'Home', 'Shop', and 'Admin'. The 'Admin' link is highlighted in green. On the right side of the header, it says 'Arnold's Account' and 'Log out'. The main content area has a dark background with a starry pattern. It features a logo for 'Dream Weaving' with a blue circular graphic. Below the logo, the title 'Add a new product' is displayed in bold. A sub-instruction 'Please fill-in the following fields to add a new product to Dream Vine:' is present. There are four input fields: 'Product Name' (with placeholder 'Product Name'), 'Product Price (CAD)' (with placeholder '0.00'), 'Product Description' (with placeholder 'Description'), and 'Category' (with placeholder 'Choose a category...'). A small 'Add Product' button is located at the bottom right of the form.

Under the “Admin” dropdown menu, on the “Add New Product” page, the administrator can add a new product to the online shop.

The administrator must include the product name, price, description, and category. The price is data validated so that the price must be between 0.00 and 999.99, inclusive.

To add a picture to the new product... **This feature is currently under construction.**

Under Construction

For this project, the list of features with points has been completed with the 50 required points. Additional points can be received based on the additional features that were added; however, not all features were included in this website and not all were finished.

Below are lists of features we hope to add in the future.

Features that are incomplete:

- Distinguishing customer from administrator
- Order history – if no previous order, prompt the user to shop
- Product page – if no reviews, prompt the user to purchase the product and leave a review
- Shopping cart – show the product image rather than the product id
- Confirm the customer's address in the check-out process
- Update or delete payment methods
- When listing previous payment methods, only show the last four digits of the credit card number
- Write a review – the insertion of a review and validation of the review is currently under construction
- Upload a photo to file system for new product
- Music in the background of the index page

Features not included:

- Dynamic products on page based on sales
- Product recommendation based on user
- Multiple shipments per order supported
- Calculate taxes/shipping (by items/state)
- Forgot password email
- Display item inventory by store/warehouse
- Edit item inventory by store/warehouse
- Report sales and orders with a graph
- Change order status/ship order
- Add/update warehouse, customer
- Implement some validation using triggers

Conclusions

Although the website is not even close to being secure enough or complete enough to go live. This project gave us a great appreciation for the work that goes into creating a basic website for an online shop. With the building blocks of how to create such a website, our group is excited to move forward in our degrees to learn how else we can create other websites and improve this one.

We would also like to thank our friends and family for testing our website.