Wiley Edge Final Project

Shop orders management tool

Full Stack Application

WILEY EDGE

BUSINESS MODEL

- Create an order management system to be used by small business owners to visualize and manage various custom orders coming in
- Have a login page so each user’s order inventory will only be visible to them
- Implement a geographical representation of the clients’ positions in order to picture the dispersion of orders across the globe

The Project: Shopping Management tool

- Create a frontend application in Angular with interface for:
    - Displaying all the orders of a business owner
    - Display orders details

- Create a backend application in JAVA JPA to request http services and execute CRUD actions on the database
    - SQL Database MySQL
    - Spring JPA
    - Google Maps API and OpenWeatherMap API to visualize the buyer’s geographical position

DATABASE

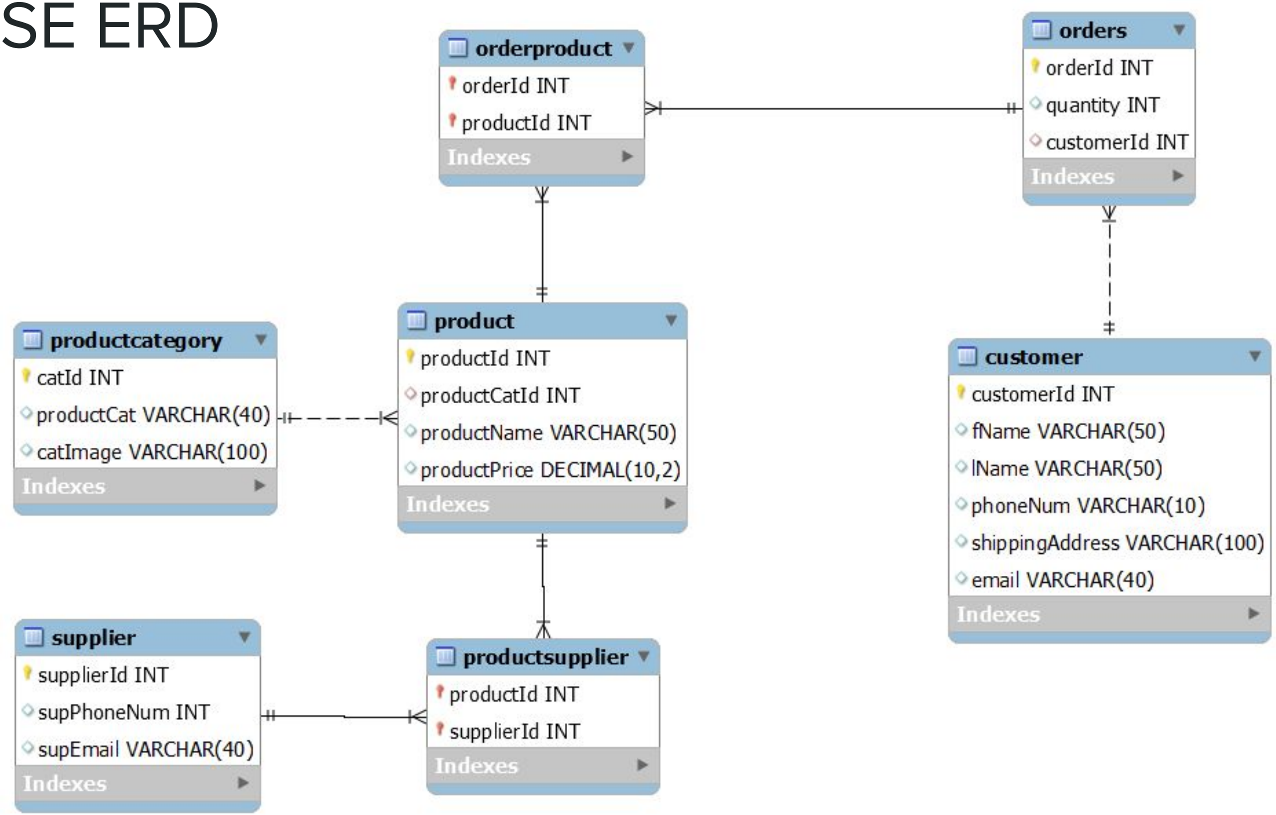
Define business logic

Define entities

Define relationships

Normalization of databases

DATABASE ERD



orderproduct
- orderId INT
- productId INT
- Indexes

orders
- orderId INT
- quantity INT
- customerId INT
- Indexes

productcategory
- catId INT
- productCat VARCHAR(40)
- catImage VARCHAR(100)
- Indexes

product
- productId INT
- productCatId INT
- productName VARCHAR(50)
- productPrice DECIMAL(10,2)
- Indexes

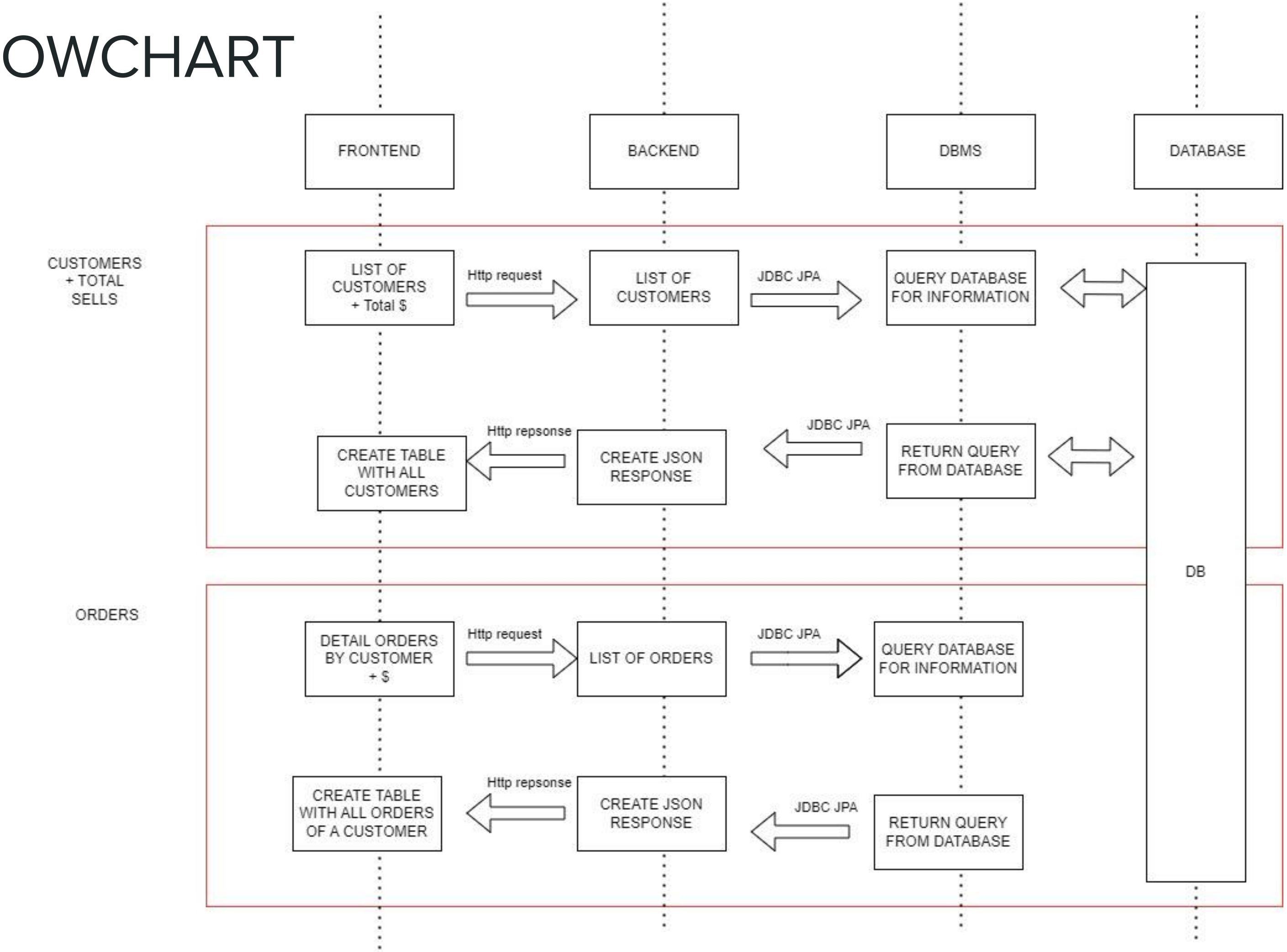
customer
- customerId INT
- fName VARCHAR(50)
- lName VARCHAR(50)
- phoneNum VARCHAR(10)
- shippingAddress VARCHAR(100)
- email VARCHAR(40)
- Indexes

supplier
- supplierId INT
- supPhoneNum INT
- supEmail VARCHAR(40)
- Indexes

productsupplier
- productId INT
- supplierId INT
- Indexes

WILEY EDGE

FLOWCHART



FRONTEND

BACKEND

DBMS

DATABASE

CUSTOMERS
+ TOTAL
SELLS

LIST OF
CUSTOMERS
+ Total $

Http request

LIST OF
CUSTOMERS

JDBC JPA

QUERY DATABASE
FOR INFORMATION

CREATE TABLE
WITH ALL
CUSTOMERS

Http repsonse

CREATE JSON
RESPONSE

JDBC JPA

RETURN QUERY
FROM DATABASE

DB

ORDERS

DETAIL ORDERS
BY CUSTOMER
+ $

Http request

LIST OF ORDERS

JDBC JPA

QUERY DATABASE
FOR INFORMATION

CREATE TABLE
WITH ALL ORDERS
OF A CUSTOMER

Http repsonse

CREATE JSON
RESPONSE

JDBC JPA

RETURN QUERY
FROM DATABASE

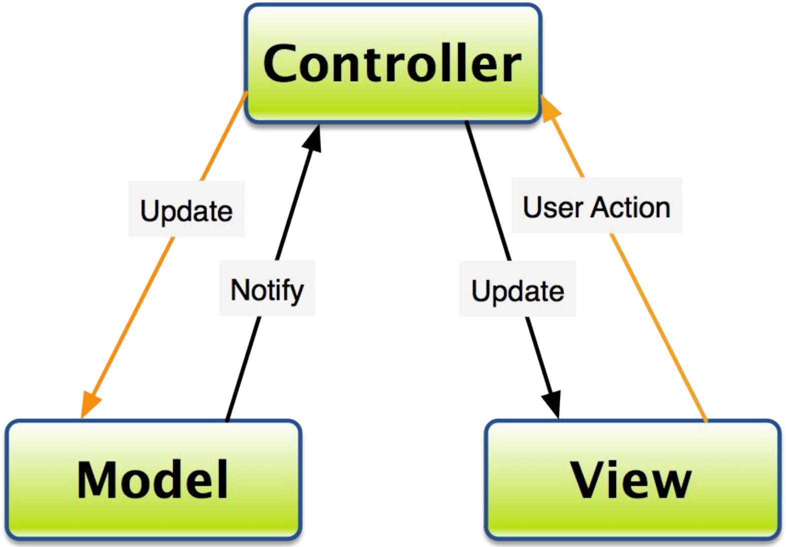
WILEY EDGE

JAVA Spring JPA App

MVC Model structure

- Model (data + business logic)
- Control (orchestrate)
- View (user interface
  + displaying the data from the model)

Spring JPA Annotations



JAVA Spring JPA App

CRUD OPERATIONS

@GetMapping

@PathVariable

@PostMapping

@RequestBody

@PutMapping

@RequestBody

@DeleteMapping

@PathVariable

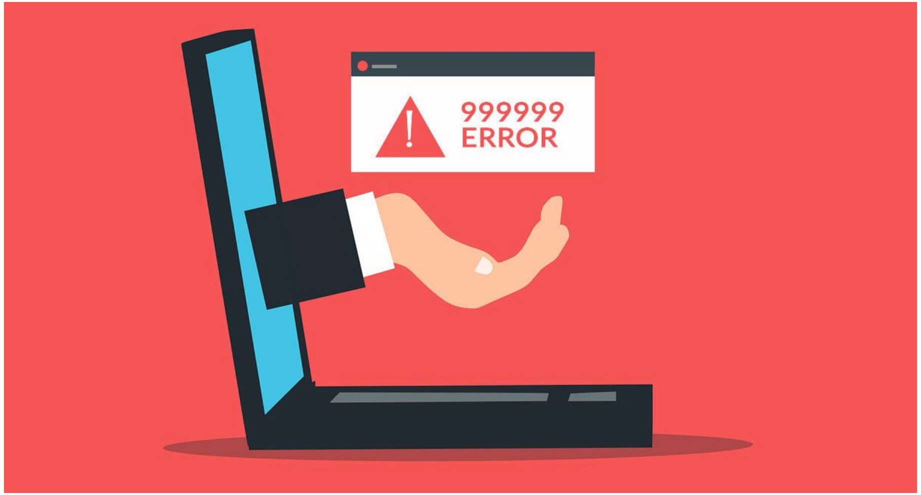
JAVA Spring JPA Exceptions handling

NotAvailableError.java

OrderNotFoundException.java

OrderIdDuplicateException.java

OrderDataValidationException.java



JAVA Unit test with JUnit suite

STATEFUL UNIT TEST

- Service layer
- Controller

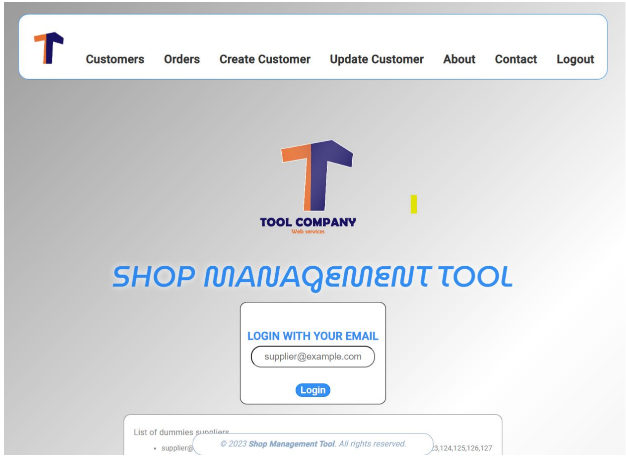
Using the Geographical APIs

-OpenWeatherMap API

-Google Maps API

FRONTED UI - Angular TS

LOGIN



SHOP MANAGEMENT TOOL

LOGIN WITH YOUR EMAIL

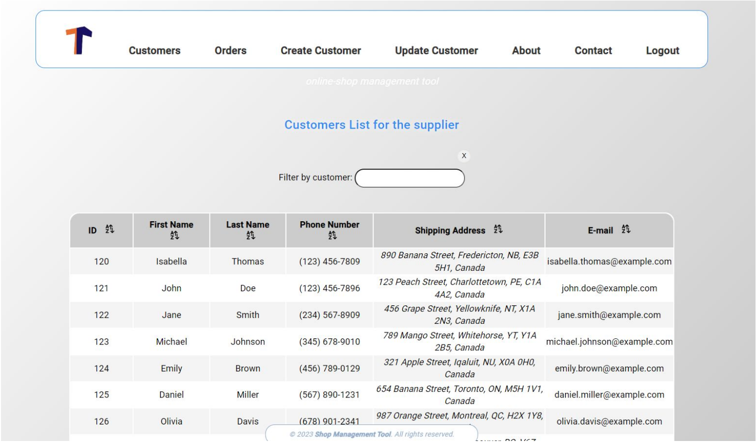
supplier@example.com

List of dummies suppliers

- supplier@ 3,124,125,126,127

© 2023 *Shop Management Tool*. All rights reserved.

LIST OF CUSTOMERS



Customers List for the supplier

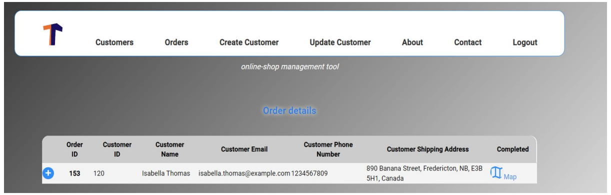
Filter by customer:

ID	First Name	Last Name	Phone Number	Shipping Address	E-mail
120	Isabella	Thomas	(123) 456-7809	*890 Banana Street, Fredericton, NB, E3B 5H1, Canada*	isabella.thomas@example.com
121	John	Doe	(123) 456-7896	*123 Peach Street, Charlottetown, PE, C1A 4A2, Canada*	john.doe@example.com
122	Jane	Smith	(234) 567-8909	*456 Grape Street, Yellowknife, NT, X1A 2N3, Canada*	jane.smith@example.com
123	Michael	Johnson	(345) 678-9010	*789 Mango Street, Whitehorse, YT, Y1A 2B5, Canada*	michael.johnson@example.com
124	Emily	Brown	(456) 789-0129	*321 Apple Street, Iqaluit, NU, X0A 0H0, Canada*	emily.brown@example.com
125	Daniel	Miller	(567) 890-1231	*654 Banana Street, Toronto, ON, M5H 1V1, Canada*	daniel.miller@example.com
126	Olivia	Davis	(678) 901-2341	*987 Orange Street, Montreal, QC, H2X 1Y8,*	olivia.davis@example.com

© 2023 *Shop Management Tool*. All rights reserved.

FRONTED UI - Angular

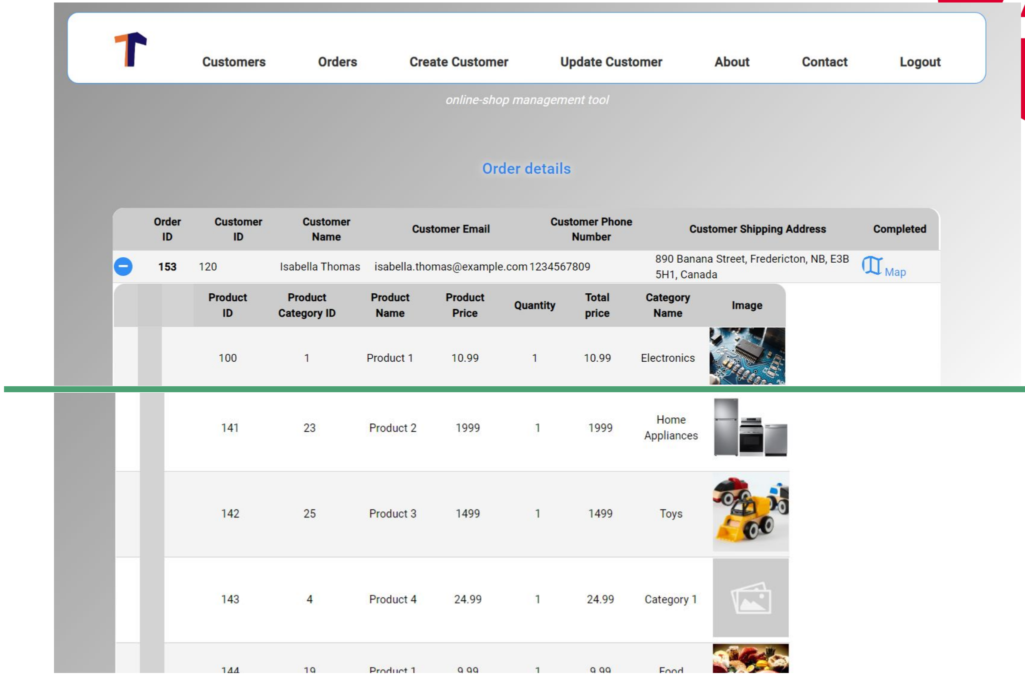
LIST OF CUSTOMERS



online-shop management tool

Order details

Order ID	Customer ID	Customer Name	Customer Email	Customer Phone Number	Customer Shipping Address	Completed
153	120	Isabella Thomas	isabella.thomas@example.com	1234567809	890 Banana Street, Fredericton, NB, E3B 5H1, Canada	Map



online-shop management tool

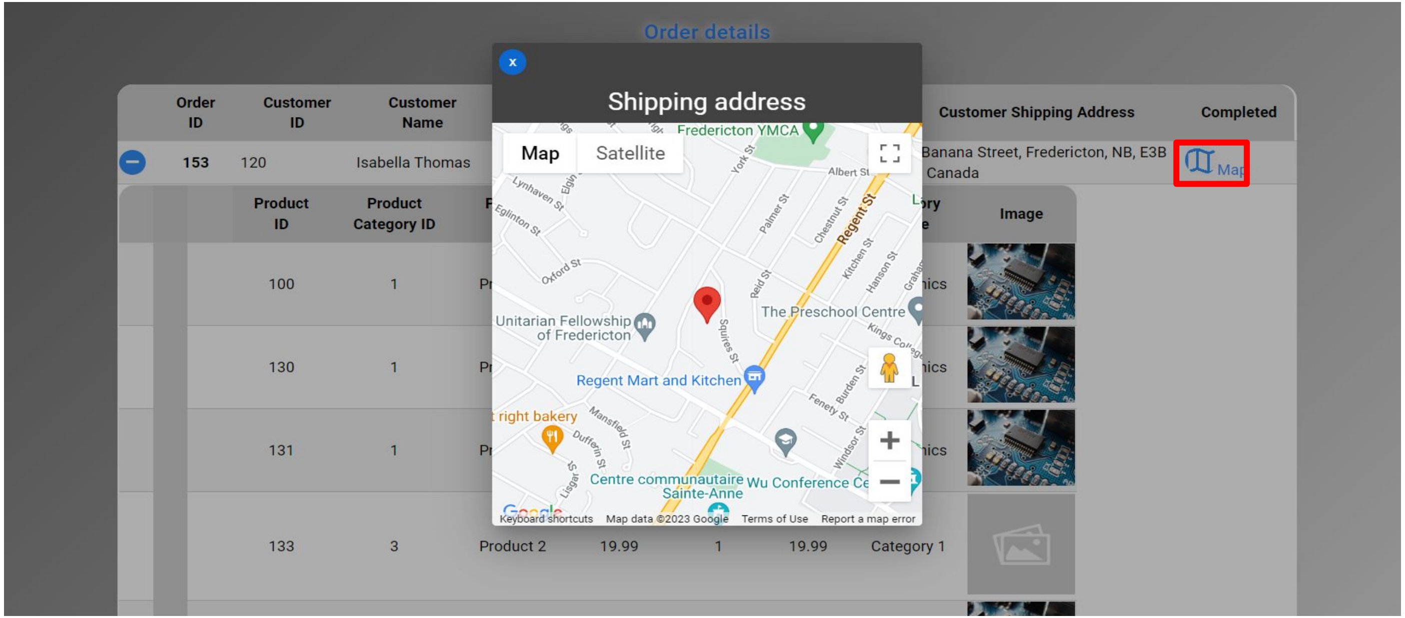
Order details

Order ID	Customer ID	Customer Name	Customer Email	Customer Phone Number	Customer Shipping Address	Completed
153	120	Isabella Thomas	isabella.thomas@example.com	1234567809	890 Banana Street, Fredericton, NB, E3B 5H1, Canada	Map

Product ID	Product Category ID	Product Name	Product Price	Quantity	Total price	Category Name	Image
100	1	Product 1	10.99	1	10.99	Electronics	
141	23	Product 2	1999	1	1999	Home Appliances	
142	25	Product 3	1499	1	1499	Toys	
143	4	Product 4	24.99	1	24.99	Category 1	
144	19	Product 1	9.99	1	9.99	Food	

FRONTED UI - Angular

GEOLOCALIZATION



Order details

Order ID	Customer ID	Customer Name	Customer Shipping Address	Completed
153	120	Isabella Thomas	Banana Street, Fredericton, NB, E3B Canada	Map

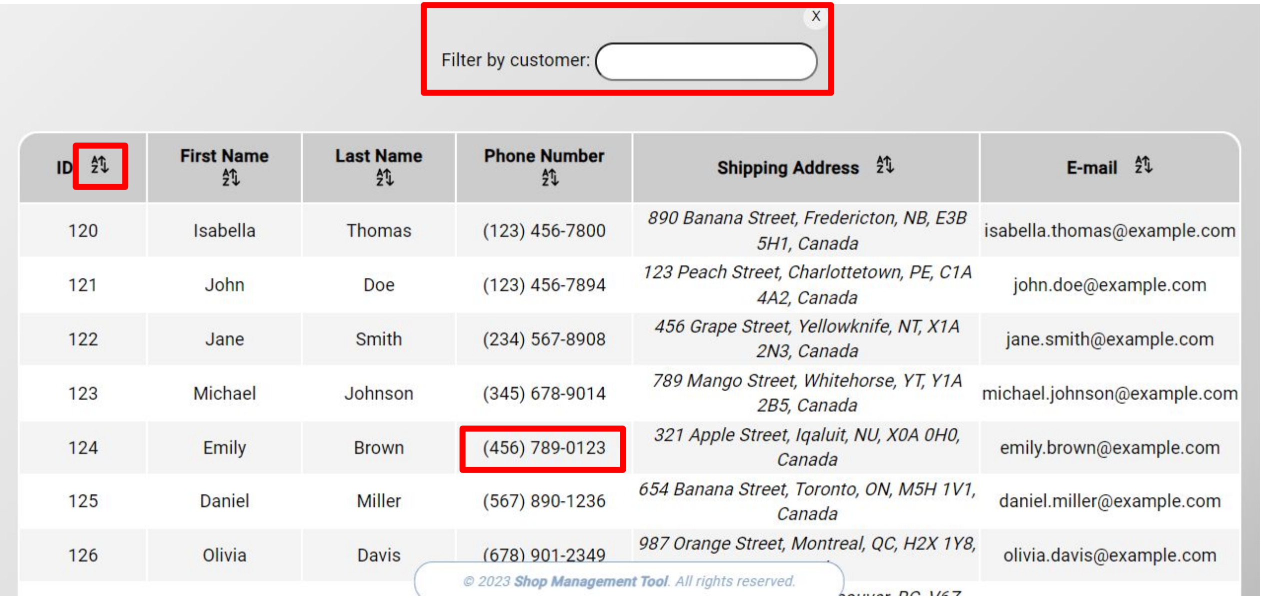
Product ID	Product Category ID	F				ory e	Image
100	1	Pr				ics	
130	1	Pr				ics	
131	1	Pr				ics	
133	3	Product 2	19.99	1	19.99	Category 1	

x

Shipping address

FRONTED UI - Angular

VISUALIZATION



x

Filter by customer:

ID	First Name	Last Name	Phone Number	Shipping Address	E-mail
120	Isabella	Thomas	(123) 456-7800	*890 Banana Street, Fredericton, NB, E3B 5H1, Canada*	isabella.thomas@example.com
121	John	Doe	(123) 456-7894	*123 Peach Street, Charlottetown, PE, C1A 4A2, Canada*	john.doe@example.com
122	Jane	Smith	(234) 567-8908	*456 Grape Street, Yellowknife, NT, X1A 2N3, Canada*	jane.smith@example.com
123	Michael	Johnson	(345) 678-9014	*789 Mango Street, Whitehorse, YT, Y1A 2B5, Canada*	michael.johnson@example.com
124	Emily	Brown	(456) 789-0123	*321 Apple Street, Iqaluit, NU, X0A 0H0, Canada*	emily.brown@example.com
125	Daniel	Miller	(567) 890-1236	*654 Banana Street, Toronto, ON, M5H 1V1, Canada*	daniel.miller@example.com
126	Olivia	Davis	(678) 901-2349	*987 Orange Street, Montreal, QC, H2X 1Y8,*	olivia.davis@example.com

*© 2023 **Shop Management Tool**. All rights reserved.*

Filtering service

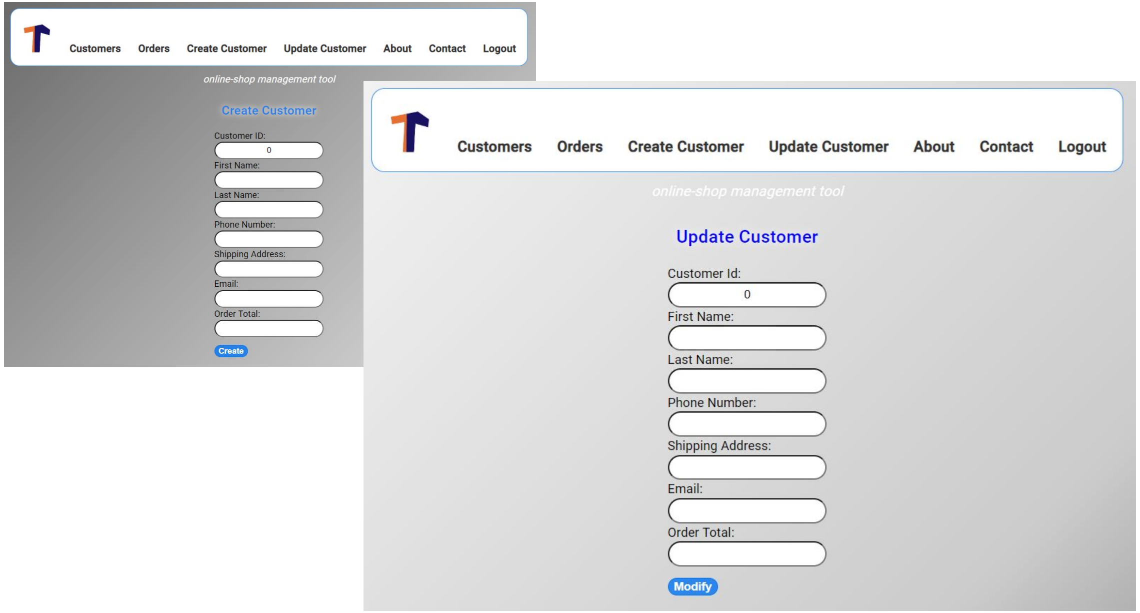
Sorting service

Phone formatting Pipe

Capitalization Pipe

FRONTED UI - Angular

CRUD OPERATIONS FROM WEB INTERFACE



Create Customer

Customer ID: 0

First Name:

Last Name:

Phone Number:

Shipping Address:

Email:

Order Total:

Update Customer

Customer Id: 0

First Name:

Last Name:

Phone Number:

Shipping Address:

Email:

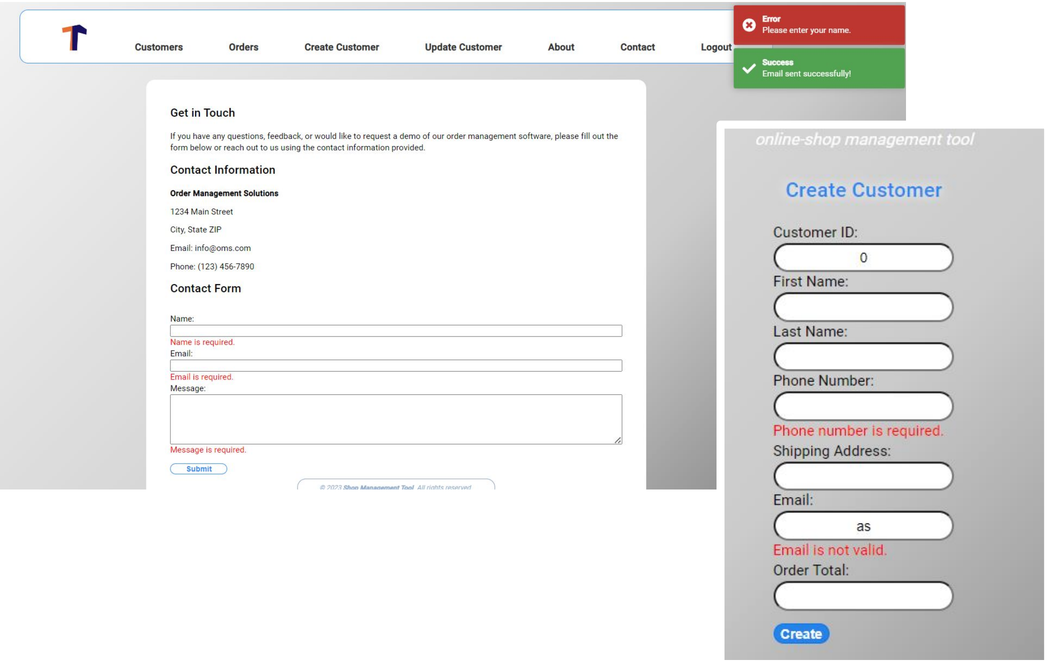
Order Total:

Create, Update UI

+ Endpoints for others operation

FRONTED UI - Angular

FIELDS VALIDATION



Error
Please enter your name.

Success
Email sent successfully!

Get in Touch

If you have any questions, feedback, or would like to request a demo of our order management software, please fill out the form below or reach out to us using the contact information provided.

Contact Information

Order Management Solutions

1234 Main Street

City, State ZIP

Email: info@oms.com

Phone: (123) 456-7890

Contact Form

Name:

Name is required.

Email:

Email is required.

Message:

Message is required.

© 2023 Shop Management Tool. All rights reserved

online-shop management tool

Create Customer

Customer ID: 0

First Name:

Last Name:

Phone Number:

Phone number is required.

Shipping Address:

Email: as

Email is not valid.

Order Total:

Fields validation

Popup feedback messages

Lessons Learned

- Utilizing an API can be very efficient for the end-user, but it can become very costly for a developer if not tested correctly. APIs can be essential to a business.

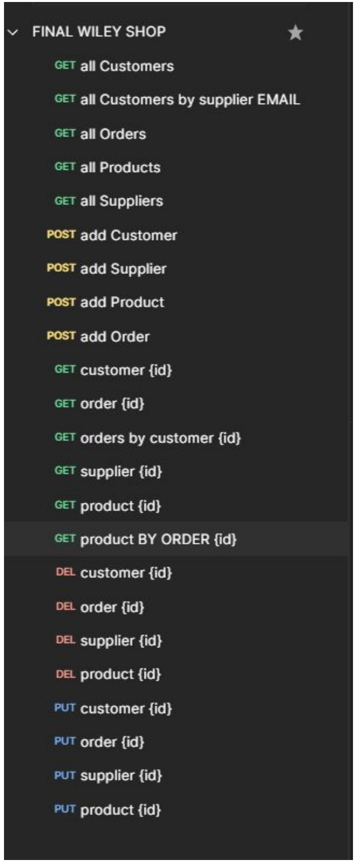
Possible improvements

- Provide web interface for all the endpoints created in the backend

- Include user profile with picture

- Implement payment database

- Storing different sessions for different users made us use our SQL abilities in order to correctly attribute each orders/customers to the correct user.



FINAL WILEY SHOP

- GET all Customers
- GET all Customers by supplier EMAIL
- GET all Orders
- GET all Products
- GET all Suppliers
- POST add Customer
- POST add Supplier
- POST add Product
- POST add Order
- GET customer {id}
- GET order {id}
- GET orders by customer {id}
- GET supplier {id}
- GET product {id}
- GET product BY ORDER {id}
- DEL customer {id}
- DEL order {id}
- DEL supplier {id}
- DEL product {id}
- PUT customer {id}
- PUT order {id}
- PUT supplier {id}
- PUT product {id}

THANKS