

Node Assignment

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Objective

Following are the learning objectives of this assignment

- Understand and Implement Clean Architecture
- Implement REST services using Node js
- Secure API s using a 3rd party auth provider (AWS Cognito, Auth0, Firebase)
- Understand and implement exception and error handling
- Understand and implement exception and error logging
- Implement automated unit testing
- Run code analysis & fix tech defects (SonarQube)

Assignment

Please create an Online shopping store. Some of the below features are key to the shopping operation. Make sure to cover these features in your application

Key Features

The customer must be able to

- register
- login
- View product/categories
- Add products to the cart
- Remove/Modify products in the cart
- View the cart
- Checkout
- Receive the invoice to his email
- View the previous purchases/ History

Tools & Technologies to be used

Backend

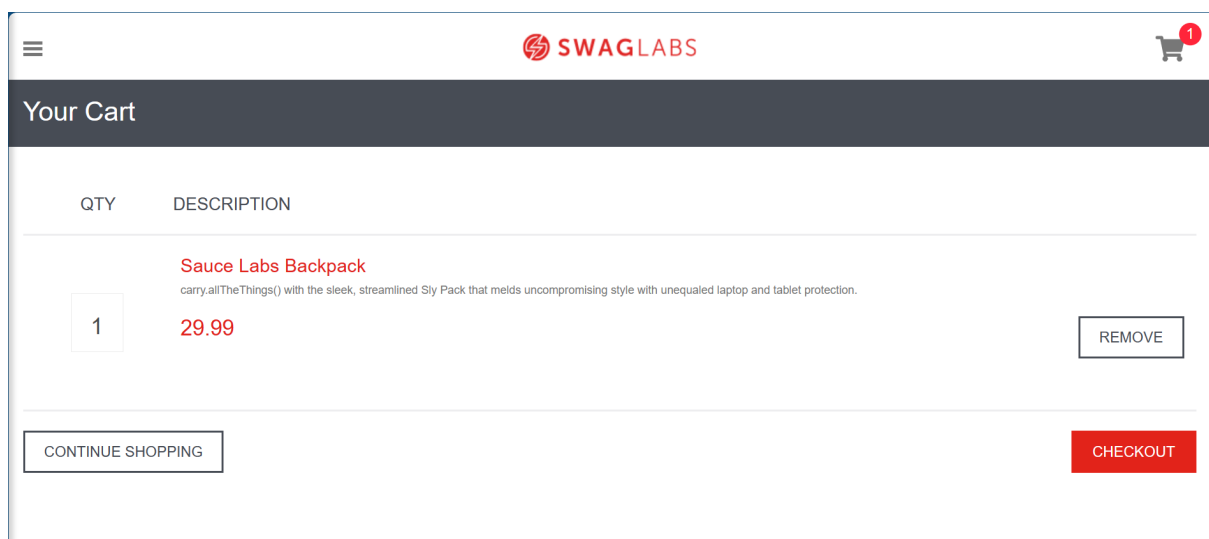
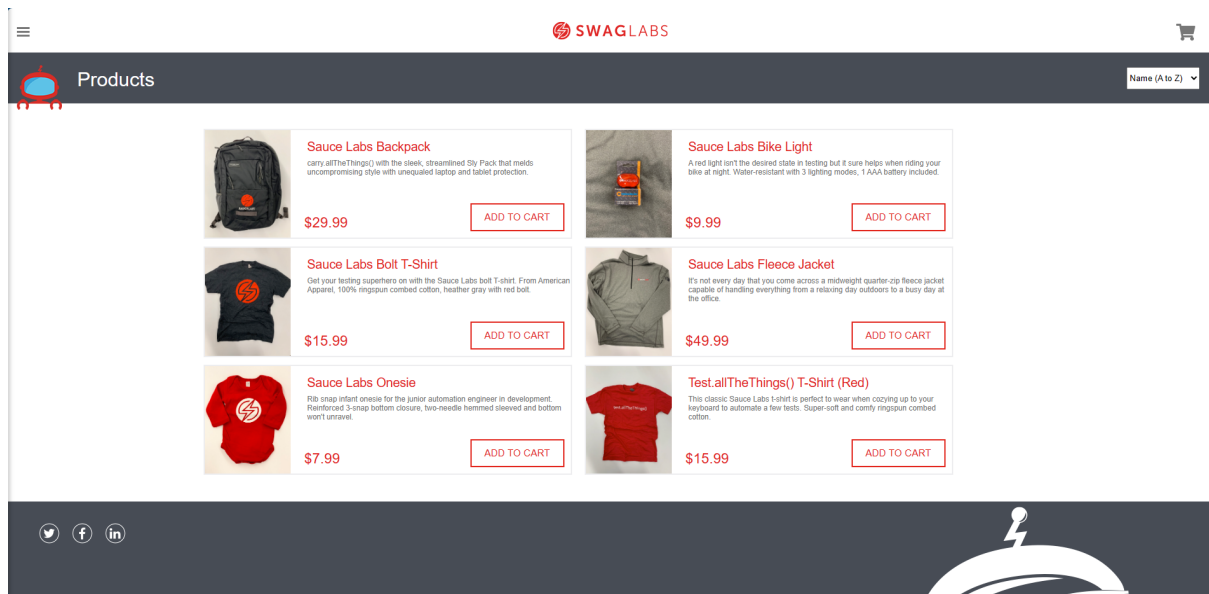
- Express.JS (Typescript)
- Database - SQL
- Auth - cognito, firebase or Auth0




- Unit testing - Jest
- Code quality - Sonarqube
- Cache - Redis (if needed)
- Containerization - Docker (optional)
- Design Patterns – Use appropriate design patterns wherever it is possible

Frontend

- React with TS
- State management - React hooks, Redux or any other framework
- Styling - Bootstrap, Tailwind, Material UI, SASS

Sample UI





Checkout: Your Information

First Name

Last Name

Zip/Postal Code

CANCEL

CONTINUE

Checkout: Overview

QTY	DESCRIPTION
1	<div>Sauce Labs Bike Light <small>A red light isn't the desired state in testing but it sure helps when riding your bike at night. Water-resistant with 3 lighting modes, 1 AAA battery included.</small> \$9.99</div>
Payment Information:	
SauceCard #31337	
Shipping Information:	
FREE PONY EXPRESS DELIVERY!	
Item total: \$9.99	
Tax: \$0.80	
Total: \$10.79	

Example application - saucedemo.com

Key Responsibilities

1. Send daily update to the lead with your progress
2. Api design document
 - a. Request type
 - b. Request Url
 - c. Request payload
 - d. Response payload
 - e. Response http status codes
3. Prepare approach document (DSTD) with diagrams i.e. Architecture, sequence, Database design
4. Estimates and the plan
5. Prepare weekly demo on every Thursday or Friday
6. Come up with dates for interim and final delivery for your application
7. Code needs to be maintained in your own GIT repository
8. Design, Estimation ,Reviews related documents needs to be maintained One Drive.