



Excellence Educational Academy

Alipore, Kolkata

[Where TALENT is the keyword]

Sister Concern is



e-DIGITAL LEARNING

AN INSTITUTE FOR MULTIDISCIPLINE TECHNICAL COACHING CLASSES & GUIDANCE
[Founded and Directed by a Renowned Academicians & Corporate Professionals]

Ref. No. : EEA/TTD-SH/IT/2024

Date : 10/11/2024

IT Professional Corporate Training Curriculum for IT/Non-IT Participants

Name of the Corporate Training : **Shopify App Development**

Course Duration: 70 Hours

Course Code: TTD-SH

Target Audience: Students, developers, and professionals looking to specialize in building and deploying apps on the Shopify platform.

Prerequisites: Basic knowledge of HTML, CSS, JavaScript, and REST APIs.

Course Outline

Module 1: Introduction to Shopify and App Development Basics

- **Topics Covered:**
 - Overview of Shopify's e-commerce ecosystem
 - Types of Shopify apps: public, private, and custom apps
 - Introduction to the Shopify Partner Program and setting up a development store
 - Overview of the Shopify API and app development requirements
- **Milestone 1 Project:**
 - Set up a Shopify Partner account and development store, and install a sample app to understand the basic setup.

Module 2: Setting Up the Development Environment

- **Topics Covered:**

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- Overview of the tech stack: Node.js, Express.js, and React for Shopify apps
- Introduction to the Shopify CLI (Command Line Interface) for app creation
- Setting up local development with ngrok to allow secure app testing
- Using Shopify's Polaris design system for a consistent UI
- **Milestone 2 Project:**
 - Build a basic Node.js and React setup for a Shopify app and connect it to a development store using ngrok.

Module 3: Understanding Shopify's API and OAuth Authentication

- **Topics Covered:**
 - Introduction to REST and GraphQL API endpoints in Shopify
 - Setting up OAuth authentication for secure access
 - Making API requests to access and manipulate store data
 - Testing API requests using Postman
- **Milestone 3 Project:**
 - Set up OAuth authentication for the app and make basic API calls to fetch store data.

Module 4: Creating a Shopify App Interface

- **Topics Covered:**
 - Using Shopify Polaris components for building user interfaces
 - Integrating Polaris components with React
 - Customizing the app UI for seamless Shopify integration
 - Building pages for product management, order management, and settings
- **Milestone 4 Project:**
 - Design the app interface using Polaris components to include a dashboard, product management page, and settings page.

Module 5: Working with Product and Order APIs

- **Topics Covered:**
 - Fetching, creating, and updating products via Shopify's Product API
 - Working with Order API to retrieve and manage orders
 - Implementing product management functionality in the app
 - Understanding and implementing webhooks for real-time updates
- **Milestone 5 Project:**
 - Build product and order management features in the app, allowing users to view and update product and order details.

Module 6: Customizing Storefronts with Shopify App Extensions

- **Topics Covered:**
 - Introduction to app extensions and adding custom elements to storefronts
 - Working with Shopify's Script Editor and Liquid for customizing the store theme
 - Building storefront extensions for upselling, custom notifications, or widgets

- Deploying and testing extensions on a live store
- **Milestone 6 Project:**
 - Create a storefront extension that adds a custom product widget or banner to product pages.

Module 7: Building Shopify App Integrations

- **Topics Covered:**
 - Integrating third-party APIs for extended functionality (e.g., Google Analytics, payment processors)
 - Data synchronization between Shopify and external services
 - Handling API limitations and implementing efficient data caching
 - Error handling and debugging best practices
- **Milestone 7 Project:**
 - Integrate a third-party API (such as Google Analytics) to provide insights directly within the Shopify app.

Module 8: Implementing Payment and Billing APIs

- **Topics Covered:**
 - Understanding billing in Shopify and types of charges (recurring, one-time, usage-based)
 - Setting up in-app purchases using Shopify Billing API
 - Configuring subscription models for apps
 - Testing the billing process in a development environment
- **Milestone 8 Project:**
 - Implement in-app billing with a subscription model, allowing users to choose plans.

Module 9: Testing, Security, and Performance Optimization

- **Topics Covered:**
 - Best practices for testing Shopify apps (unit tests, end-to-end tests)
 - Security considerations (rate limiting, validation, sanitization)
 - Optimizing app performance for large data sets and minimizing load times
 - Preparing for app review and Shopify's app approval guidelines
- **Milestone 9 Project:**
 - Conduct thorough testing, including performance optimization and security audits for the app.

Module 10: App Deployment and Publishing to the Shopify App Store

- **Topics Covered:**
 - Preparing your app for Shopify App Store listing
 - Creating an effective app store page: branding, SEO, and marketing
 - Submitting for Shopify App Store review and responding to feedback
 - Monitoring app performance and user feedback post-deployment
- **Final Project:**
 - Deploy the app to a live Shopify store or publish it to the Shopify App Store, completing all review requirements and app listing optimizations.

Assessment and Evaluation

- Milestone Projects: 60% of final grade
- Final Project: 30% of final grade
- Participation and Attendance: 10% of final grade

Resources

- Recommended Books:
 - "Shopify Theme & App Development" by Gavin Ballard
 - "E-Commerce with Shopify: Design, Development, and Marketing" by Jason Carman
- Online Platforms:
 - Shopify Partner Academy
 - [Shopify Developer Documentation](#)

Course Delivery

- Method: Blended learning (theory and practical)
- Format: Lectures, hands-on coding sessions, and project work