



## Anypoint Platform Development: Fundamentals - DEX401 (DEX401)

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### Delivery and Pre-work Information

#### Pre-work

- Pre-work Title:
  - Pre-work Link:
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### Course Information

#### Class Code

DEX401

#### Course Name

Anypoint Platform Development: Fundamentals - DEX401

#### About This Class

Explore the basics of how to develop on the Anypoint Platform. In this 5-day instructor-led course, learn how to manage APIs and how to build Mule applications with Anypoint Studio.

#### Who should take this class?

This fast-paced and content-heavy course is designed for developers and architects who are responsible for building APIs and integrations using Anypoint Platform. Students should have previous experience with an object-oriented language, have a basic understanding of data formats, such as XML, CSV, and JSON, and possess foundational knowledge of common

integration technologies, such as HTTP, Java Message Service (JMS), Java Database Connectivity (JDBC), REST, and SOAP. This is also a great course for anyone interested in earning their [Salesforce Certified MuleSoft Developer](#) certification.

**Note:** Students using their own computer are expected to follow the steps outlined in this [Computer Setup Guide](#).

### **When you complete this class, you will be able to:**

- Build an application network using API-led connectivity and Anypoint Platform.
- Use Anypoint Platform to discover, design, build, deploy, manage, and govern APIs.
- Connect to databases, files, web services, Software as a Service (SaaS) applications, JMS queues, and more.
- Harness DataWave to add application logic, handle errors, and transform data.
- Structure applications to facilitate development and deployment.
- Handle batch data processing.

## **What lessons and topics will be covered?**

### **Part I: Anypoint Platform**

#### **Application Networks and API-Led Connectivity**

- Define Application Networks and Benefits
- Build an Application Network Using API-Led Connectivity
- Examine Web Services and APIs
- Secure and Unsecured APIs Using Calls

#### **Introduction to Anypoint Platform**

- Discover Anypoint Platform Benefits

- Explore Application Network Component Functions
- Navigate Anypoint Platform
- Locate APIs and Other Assets

## **API Design**

- Define APIs with Restful API Modeling Language (RAML)
- Test Designs with Mock APIs
- Make APIs Discoverable
- Create Public API Portals for External Developers

## **API Builds**

- Configure Mule Applications
- Access Databases Using Connectors
- Transform Data with DataWeave Editor
- Create RESTful Interfaces from RAML Files
- Connect API Implementation Interfaces
- Synchronize API Changes Between Anypoint Platform and Anypoint Studio

## **API Deployment and Management**

- Define Mule Application Deployment Options
- Deploy Mule Applications to CloudHub
- Create and Deploy API Proxies Using API Manager
- Restrict Access to API proxies with API Manager

## **Part II: Mule Applications with Anypoint Studio**

## **Mule Events**

- Log Mule Event Data
- Debug Mule Applications
- Compose Event Properties
- Write Expressions with DataWeave Expression Language
- Create Variables

## **Mule Application Structure**

- Create Mule Applications with Multiple Flows and Subflows
- Pass Events Between Flows with Asynchronous Queues
- Encapsulate Global Elements in Separate Configuration Files
- Use Application Properties
- Identify Mule Project File and Folder Purposes
- Manage Mule Application Metadata

## **Web Services**

- Consume Web Services in Anypoint Exchange Using APIs and Connectors
- Consume RESTful Web Services
- Consume SOAP Web Services
- Pass Parameters to SOAP Using the Transform Message Component
- Transform Data from Multiple Services to a Canonical Format

## **Event Flow**

- Examine Multicast Events
- Route Events Based on Conditions
- Validate Events

## Error Handling

- Handle Messaging Errors
- Address Multiple Error Types
- Examine Different Error Scopes
- Create Success and Error Response Settings for HTTP Listeners
- Configure System Error Reconnection Strategies

## DataWeave Transformations

- Write DataWeave Expressions for Basic XML, JSON, and Java Transformations
- Draft DataWeave Transformations for Complex Data Structures
- Define Global and Local Variables and Functions
- Use DataWeave Functions
- Format Strings, Numbers, and Dates
- Define Custom Data Types
- Access Flow Results in DataWeave
- Store DataWeave Scripts in External Files

## Flow Triggers

- Read and Write Files
- Update Files with Flow Triggers

- Create New Records Using Flow Triggers
- Schedule Flows
- Share Data in Flows Using Object Store
- Publish JMS Messages

## Record Processing

- Process Collection Items Using the For Each Scope
- Use the Batch Job Scope to Process Records
- Apply Filtering to a Batch Step