**GRAPHQL TRAINING COURSE OUTLINE**

**Duration:** 32 Hours / 04 days

**Prerequisites:** Sound understanding of NodeJS

**Course Outline:**

**GraphQL Basics Schemas and Queries**

• Section Intro

• Creating Custom Types

• Operation Arguments

• Working with Arrays

• Relational Data Basics

• Relational Data Arrays

• What is a Graph?

• GraphQL Queries

• Nested GraphQL Queries

• Setting up Babel

• ES6 Import Export

• Creating Your Own GraphQL API

• GraphQL Scalar Types

• Live Reload for GraphQL-Yoga

**GraphQL Basics Mutations**

• Section Intro GraphQL Basics Mutations

• Updating Data with Mutations

**GraphQL Basics Subscriptions**

• Section Intro GraphQL Basics Subscriptions

• GraphQL Subscription Basics

• Expanding the Subscription for Edits and Deletions

• Enums

**Authentication with GraphQL**

• Section Intro

• Allowing for Generated Schemas

• Storing Passwords

• Creating Auth Tokens with JSON Web Tokens

• Logging in Existing Users

• Validating Auth Tokens

• Locking Down Individual Type Fields

• Fragments

• Cleaning up Some Edge Cases

• Locking Down Subscriptions 8

• Token Expiration

• Password Updates

• Integrating Operation Arguments

• Refactoring Custom Type Resolvers

**Pagination and Sorting with GraphQL**

• Section Intro

• Pagination

• Pagination Using Cursors

• Working with created At and updated At

• Sorting Data

**Production Deployment**

• Node.js Production App Deployment

• Node.js Production Environment Variables

**Apollo Client and Testing GraphQL**

• Section Intro

• Testing Queries

• Expecting GraphQL Operations to Fail

• Supporting Multiple Test Suites and Authentication

• Testing with Authentication

• GraphQL Variables

• Testing Comments

• Testing Subscriptions

• Setting up a Test Environment

• Installing and Exploring Jest

• Testing and Assertions

• Apollo Client in the Browser

• Configuring Jest to Start the GraphQL Server

**Creating a Boilerplate Project**

• Section Intro Creating a Boilerplate Project

• Creating a Boilerplate Project

• Using the Boilerplate Project