

# EverNorth QE Training - Completed Concepts

---

This document outlines all the concepts completed during the EverNorth QE training program. Each concept includes practical assignments and hands-on implementation.

## Documentation and Assignments

- **Documentation:** <https://vibetestq.com/aic/evernorth/docs/>
- **Assignments:** <https://vibetestq.com/aic/evernorth/assignments/>

## JavaScript Fundamentals

Core JavaScript concepts covered with practical examples and assignments.

- **JavaScript Syntax:** Basic syntax rules and structure
- **Variables and Data Types:** Declaration, scope, and primitive/reference types
- **Operators:** Arithmetic, comparison, logical, and assignment operators
- **Conditions:** If-else statements and conditional logic
- **Loops:** For, while, and do-while loops
- **Arrays:** Array creation, manipulation, and methods
- **Functions:** Function declaration, parameters, return values, and scope
- **Objects:** Object creation, properties, methods, and prototypes
- **Asynchronous Programming:** Callbacks, promises, and async/await
- **Scopes:** Global, local, and block scope
- **Classes:** ES6 class syntax, constructors, and inheritance
- **Debugging:** Debugging techniques and tools
- **Exception Handling:** Try-catch blocks and error management
- **Modules:** Module imports, exports, and reuse

## TypeScript and Automation

TypeScript concepts applied to test automation frameworks.

- **TypeScript Basics:** Type annotations, interfaces, and classes
- **Node.js Projects:** Setting up and managing Node.js projects
- **CSS for Test Automation:** CSS selectors and styling for automation
- **XPath for Test Automation:** XPath expressions for element location
- **Playwright API Testing:** API testing with Playwright
- **RESTful API Testing:** Testing REST APIs (e.g., Restful Booker)

## Playwright Testing Framework

End-to-end testing with Playwright, including page object model and various web interactions.

- **Basic Test Setup:** Configuration and basic test structure
- **Alerts and Dialogs:** Handling browser alerts and confirmations
- **Cookies Management:** Setting, getting, and managing cookies

- **Frames and Iframes:** Interacting with nested frames
- **Drag and Drop:** Implementing drag-and-drop functionality
- **Context and Pages:** Managing browser contexts and multiple pages
- **Page Object Model (POM):** Implementing POM for OrangeHRM application
- **API Testing:** Testing APIs with Playwright
- **Data-Driven Testing:** Using external data sources for tests
- **Custom Test Examples:** Advanced test scenarios and utilities

## Data Handling and Utilities

Reading, writing, and manipulating data for test automation.

- **JSON Data Handling:** Reading and writing JSON files
- **Excel Data Handling:** Reading from and updating Excel files
- **Text File Operations:** Reading and writing text files
- **Database Operations:** Reading from and writing to databases
- **Base Request Classes:** Reusable request utilities for API testing
- **Base Test Classes:** Common test setup and teardown

## Test Execution and Reporting

Running tests and generating reports.

- **Test Results:** Capturing and analyzing test execution results
- **Playwright Reports:** HTML reports for test runs

All concepts have been completed with corresponding assignments, demonstrating practical application of the learned skills.