


Cognizant Academy

Generation Cognizant (GenC)

Learner Handbook

(Quality Engineer with Selenium and Java)



Why do we need this GenC learning Program?

Gen C learning program engages young talents with a comprehensive learning pathway, giving the millennials an opportunity to interact with Subject Matter Experts (SME), understand the corporate environment, and groom themselves.

Cognizant emphasizes on Learner Autonomy where students take charge of their own learning, with the available tools and resources. More focus is on “learning” than “teaching”. Get ready to embark your own learning adventure!

Program at a glance

Learning consisting of 2 Stages:

- Stage 1 – QEA Basics (5 weeks)
- Stage 2 – Selenium with Digital Technologies (7 weeks – Inclusive of the Project)
Business Aligned Project

Program Highlights

- The complete learning journey is formalized using adult learning principles, where problem solving and applying the skills gained are given more importance than conceptual learning.
- Learner Autonomy is encouraged via Flipped Classroom, where the learning platform offers world class learning resources, and students would not be constrained by tutelage of an instructor.
- Get mentored by SME, whose motivation and guidance will help you accelerate in the learning journey.
- This program is applicable to Interns as well as GEN Cs.

Learning Journey with Flipped Classroom

This program encourages you to be more autonomous learners during guided self-learning hours, completing the learning objectives on your own pace and style, and get ready for the hands-on practice time.

The complete learning path is set in the [GEN C Learn Platform](#), which you can login with SSO.

Flipped Classroom

Self-Learning Time

- Go through the Learning Objectives
- Try to accomplish the learning objectives by accessing learning resources

Practice Time

- Get guidance from Subject Matter Expert
- Deep dive on to the learning concepts and solve a problem statement

Recommended Program Sequence

The learning journey contains 2 stages, followed by a Business Aligned Project.

- Stage 1 – QEA Basics
- Stage 2 – Selenium with Digital Technologies
- Business Aligned Project will provide you an experience of real time problem solving in Agile methodology.

Stage 1 – QEA Basics

Week 1

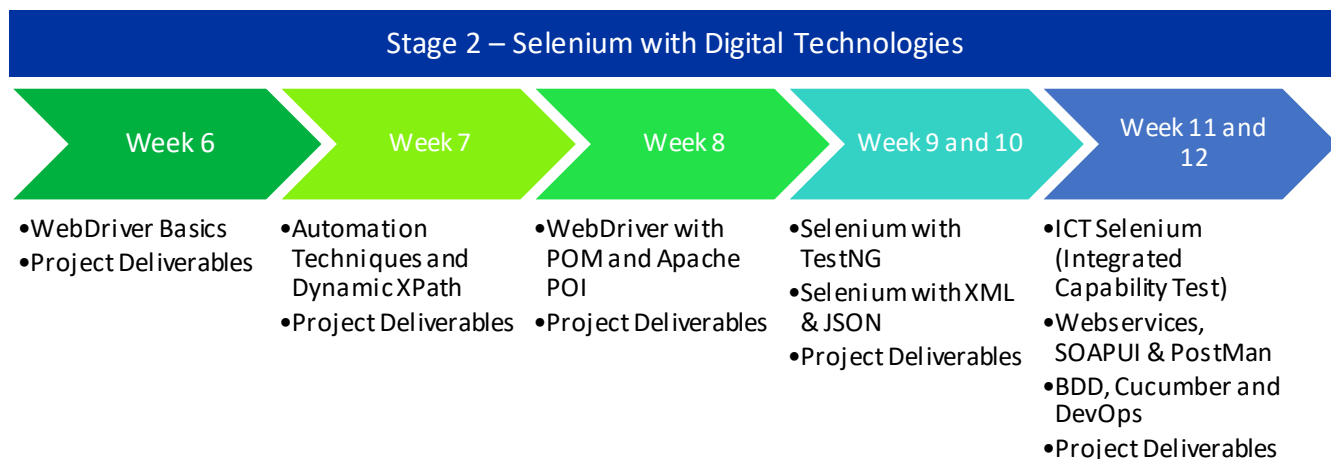
- Functional Testing
- Basics of Automation Concepts
- ICT - Functional Testing(Integrated Capability Test)

Week 2 & 3

- Programming with Java

Week 4 & 5

- WebUI
- JavaScript
- Data Source(SQL, XML, JSON)



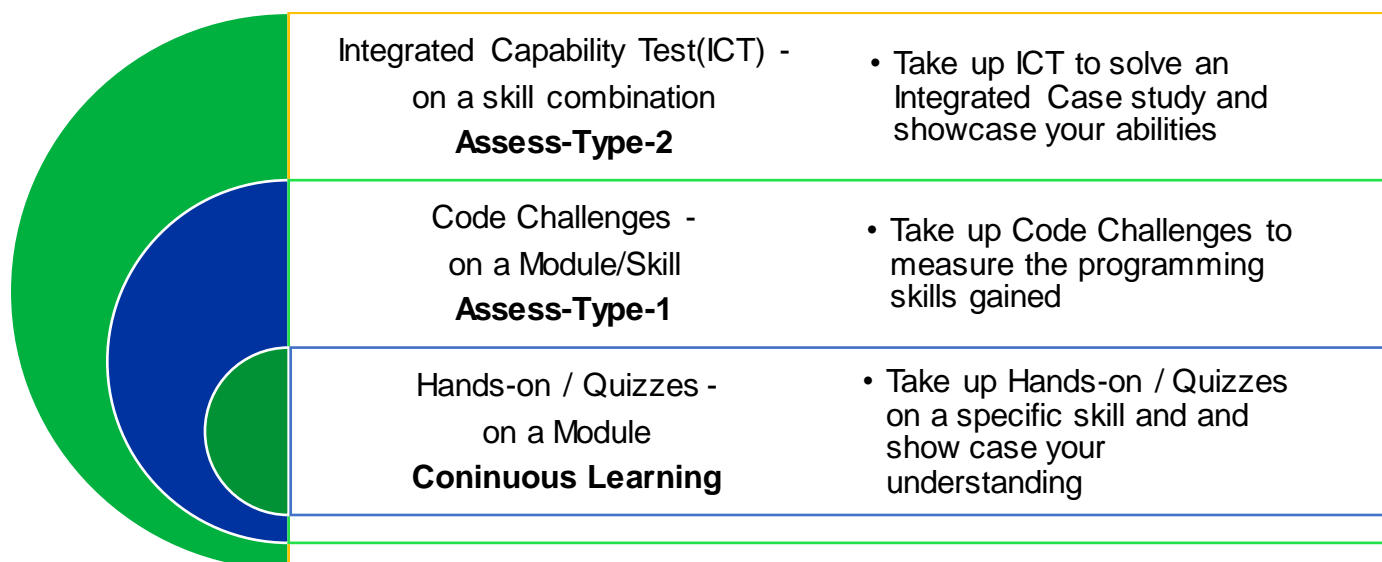
Key Learning Components of the Program

Cognizant has collaborated with Udemy to provide world class learning videos for the evolving future of work. These Udemy programs are woven in to a learning path, empowering you to plan and learn at your style.

The program also connects you with Subject Matter Experts to get the professional guidance on your queries in the learning journey.

The program continuously evaluates if you are able to apply those self-learnt skills to solve a business problem. Depicted below are the three key learning components, which are distributed across the learning journey for the purpose of continuous evaluation.

You have to score a minimum of 70% in each of the key components.



Note: Throughout the learning path, all the Mandatory Learning Components will attribute to the Performance Health Score. Additional Learning Components will help you to enhance your expertise level.

Schedule – Stage 1: Week 1

Week 1 will be focusing on Functional Testing Fundamentals.

Udemy learnings are recommended in the Platform to understand the fundamental concepts. Apply the concepts learned and solve the Hands-on and Practice Case studies as recommended below.

Day 1

Functional Testing

Continuous Learning: Technical Enablement

Learn the basics of Agile Fundamentals and Software Testing Life Cycle



[The Complete 2022 Software Testing Bootcamp](#)

Refer below sections in this Udemy course and complete the corresponding learnings

Section 1: Introduction

Section 2: Basic Concepts of Software Testing

Section 3: Test Scenario Writing

Section 4: Test Case Writing

Section 5: Test Execution & Bug Reporting

Section 6: Testing Reports: Test Progress & Test Summary Report

Day 2

Functional Testing

Continuous Learning: Technical Enablement

Learn the basics of Software Testing Life Cycle



[The Complete 2022 Software Testing Bootcamp](#)

Refer below sections in this Udemy course and complete the corresponding learnings.

Section 7: Black-Box Test Techniques

Section 10: Basics of Agile & Agile Testing

Section 11: How to use JIRA for Agile Testing

Section 13: White Box Test Techniques

Section 14: SQL for Testers

Section 15: API Testing

Section 17: Performance Testing

Day 3

Functional Testing

Continuous Learning: Technical Enablement

Learn the basics of Software Testing Life Cycle



[The Complete 2022 Software Testing Bootcamp](#)

Refer below sections in this Udemy course and complete the corresponding learnings.

Section 20: Codeless Test Automation using Selenium IDE

Section 26: Software Testing Status in 2021

Continuous Learning: Technical Hands-on

Mandatory Hands-on

- Hotel Booking

Deliverables Expected:

Deliverable 1: Identify four test scenarios for the mentioned requirement

Deliverable 2: Write all the test cases using the appropriate testing techniques wherever applicable

Deliverable 3: Log the below mentioned defects effectively with all the details, relating the requirement mentioned such that the developers would understand.

Functional Testing

Continuous Learning: Technical Enablement

Learn the basics of Software Testing Life Cycle



[The Complete 2022 Software Testing Bootcamp](#)

Refer sections 6, 8 and 11 in this Udemy course and complete the corresponding learnings.

Section 6: Black Box Test Techniques

Section 8: Basics of Agile & Agile Testing

Section 11: White Box Test Techniques

Continuous Learning: Technical Hands-on

Mandatory Hands-on

- Students Enquiry Form

Deliverables Expected:

Deliverable 1: Identify four test scenarios for the mentioned requirement

Deliverable 2: Write all the test cases using the appropriate testing techniques wherever applicable

Deliverable 3: Log the below mentioned defects effectively with all the details, relating the requirement mentioned such that the developers would understand.

Additional Learning:

Technical Quizzes:

Quiz 1 - Functional Testing

Day 5

Functional Testing

Assess-Type-2: Integrated Capability Test (ICT)
Functional Testing

Schedule – Stage 1: Week 2

Week 2 will be focusing on Java Programming

Udemy learnings are recommended in the Platform to understand the fundamental concepts. Apply the concepts learned and solve the Hands-on and Practice Case studies as recommended below.

Day 6

Java Programming

Continuous Learning: Technical Enablement

Learn the basics of Java Programming



[Selenium WebDriver MasterClass \(Basic + Advance + Architect\)](#)

Refer sections 1, 2 and 3 in this Udemy course and complete the corresponding learnings.

Section 1: Introduction

Section 2: Environment Set-up

Section 3: Java for Beginners in Automation testing

Day 7

Java Programming

Continuous Learning: Technical Enablement

Learn the basics of Java Programming



[Selenium WebDriver MasterClass \(Basic + Advance + Architect\)](#)

Refer sections 4 in this Udemy course and complete the corresponding learnings.

Section 4: Object Oriented Programming in java

Continuous Learning: Technical Hands-on

Mandatory Hands-on

- Print Message
- Find Season

Day 8

Java Programming

Continuous Learning: Technical Enablement

Learn the basics of Java Programming



[Selenium WebDriver MasterClass \(Basic + Advance + Architect\)](#)

Refer sections 5 in this Udemy course and complete the corresponding learnings.

Section 5: Array in Java

Continuous Learning: Technical Hands-on

Mandatory Hands-on

- Print unique characters
- DreamTek Company

Day 9

Java Programming

Continuous Learning: Technical Enablement

Learn the basics of Java Programming



[Selenium WebDriver MasterClass \(Basic + Advance + Architect\)](#)

Refer sections 6 and 7 in this Udemy course and complete the corresponding learnings.

Section 6: String in Java

Section 7: Exception Handling in Java

Continuous Learning: Technical Hands-on

Mandatory Hands-on

- Vehicle-Loan-Insurance - Use Interface
- Array Manipulation - Use try with multi catch

Day 10

Java Programming

Continuous Learning: Technical Enablement

Learn the basics of Java Programming



[Selenium WebDriver MasterClass \(Basic + Advance + Architect\)](#)

Refer section 8 in this Udemy course and complete the corresponding learnings.

Section 8: Java Collection Framework

Assess-Type-1: Code Challenge

Code Challenge 1 - Java Programming - Objects Operators & Control flow statements

Schedule – Stage 1: Week 3

Week 3 will be continuing the focus on Java Programming

Udemy learnings are recommended in the Platform to understand the fundamental concepts. Apply the concepts learned and solve the Hands-on and Practice Case studies as recommended below.

Day 11

Java Programming

Continuous Learning: Technical Enablement

Learn the basics of Java Programming



[Selenium WebDriver MasterClass \(Basic + Advance + Architect\)](#)

Refer sections 9 and 10 in this Udemy course and complete the corresponding learnings.

Section 9: Utilities : Implementation of Framework Support Utils

Section 10: Project Build Tool :MAVEN

Continuous Learning: Technical Hands-on

Mandatory Hands-on

- Book Manipulation
- Average and Grade Calculation

Additional Hands-on

- String - Find and replace the character (First occurrence)
- Array Compatibility
- Find Average Age

Additional Learning:

Technical Quizzes:

Quiz 1 - Java Operator, Control flow statement

Java Programming

Continuous Learning: Technical Enablement

Learn the basics of Java Programming



[Java Database Connection: JDBC and MySQL](#)

Refer sections 1, 2, 3, 4 and 5 in this Udemy course and complete the corresponding learnings.

Section 1: Introduction

Section 2: Getting Started with JDBC

Section 3: Performing Basic JDBC

Section 4: Calling Stored Procedures

Section 5: Transactions and Metadata

Continuous Learning: Technical Hands-on

Mandatory Hands-on

- Search a Course

Additional Hands-on

- BankAccountDetails
- InitCap
- Count occurrence of a character

Additional Learning:

Technical Quizzes:

Quiz 2 - Applying Object Oriented Concepts in java

Java Programming

Continuous Learning: Technical Enablement

Learn the basics of Java Programming



[Java Database Connection: JDBC and MySQL](#)

Refer sections 6, 7 and 8 in this Udemy course and complete the corresponding learnings.

Section 6: Handling BLOBs and CLOBs

Section 7: Database Configuration

Section 8: Summary

Continuous Learning: Technical Hands-on

Mandatory Hands-on

- Shape - Area Volume Calculator

Additional Hands-on

- Fuel Consumption Calculator
- Bonus Points - Bike Race

Day 14

Java Programming

Continuous Learning: Technical Enablement

Learn the basics of Java Programming



[Java Database Connection: JDBC and MySQL](#)

Refer all the sections in this Udemy course based on need and try to attempt the additional hands-on given below.

Continuous Learning: Technical Hands-on

Additional Hands-on

- RetrieveStudentInfoSchoolwise
- Add Flight using JDBC

Day 15

Java Programming

Assess-Type-1: Code Challenge

Code Challenge 2 - Java Programming - Packages, Strings, Inheritance , Abstract Classes & Interfaces

Schedule – Stage 1: Week 4

Week 4 will be focusing on WebUI : JavaScript and HTML/CSS

Udemy learnings are recommended in the Platform to understand the fundamental concepts. Apply the concepts learned and solve the Hands-on and Practice Case studies as recommended below.

Day 16

WebUI - HTML and XPath

Learn the basics of WebUI : HTML Basics

Continuous Learning: Technical Enablement



[Build Websites from Scratch with HTML & CSS](#)

Refer only sections 1, 2, 3, 4, 5, 6 & 7 to learn HTML fundamentals with CSS.

Learn the basics of WebUI : XPath Basics



[Master XPath and CSS Selectors for Selenium WebDriver](#)

Refer section 1, 2, 3, 4 and 5 in this Udemy course and complete the corresponding learnings.

Section 1: Locating Elements

Section 2: XPath Basics

Section 3: XPath Axis

Section 4: CSS Selectors Basics

Section 5: CSS Selectors Advance

Continuous Learning: Technical Hands-on

Mandatory Hands-on

- HTML-Xpath-condition: StudentRegistration
- HTML-Xpath: CommodityDetails2
- HTML-Xpath: CommodityDetails1

Day 17

WebUI - HTML and XPath

Continuous Learning: Technical Hands-on

Mandatory Hands-on

- HTML-Xpath-function: StudentRegistration
- HTML-Xpath: AddressBook
- HTML-Xpath: Cargo_Shipping_Cost
- HTML-Xpath: CSS selector
- HTML-Xpath: Label_PartialXPath

Day 18

Web UI - Javascript

Continuous Learning: Technical Enablement

Learn the basics of WebUI: JavaScript Basics



[Accelerated JavaScript Training](#)

Refer section 1, 2, 3 and 4 in this Udemy course and complete the corresponding learnings.

Section 1: Getting Started

Section 2: Language Basics

Section 3: Types & Scopes

Section 4: Arrays

Continuous Learning: Technical Hands-on

Mandatory Hands-on

- Address Details
- User Details

Day 19

Web UI - Javascript

Continuous Learning: Technical Enablement

Learn the basics of WebUI: JavaScript Basics



[Accelerated JavaScript Training](#)

Refer section 5, 6 7, 8 & 9 in this Udemy course and complete the corresponding learnings.

Section 5: Objects

Section 6: Errors & Debugging

Section 7: Functions

Section 8: Built-in Objects & Functions

Section 9: Working with the Window and Document Object Model (DOM)

Continuous Learning: Technical Hands-on

Mandatory Hands-on

- Asset Summary
- Customer Details
- Payment Information
- Total Expense

Additional Learning:

Technical Quizzes:

Quiz 1 - Java script

Day 20

Assess-Type-1: Code Challenge

Assess-Type-1: Code Challenge 1 - Java script

Schedule – Stage 1: Week 5

Week 5 will be focusing on DataSource – SQL, XML and JSON.

Udemy learnings are recommended in the Platform to understand the fundamental concepts. Apply the concepts learned and solve the Hands-on and Practice Case studies as recommended below.

Day 21

Datasource - SQL

Continuous Learning: Technical Enablement

Learn the basics of SQL



[SQL for Beginners: Learn SQL using MySQL and Database Design](#)

Refer sections 1, 2, 3, 4, 5, 6 and 7 in this Udemy course and complete the corresponding learnings.

Section 1: Course Introduction

Section 2: Installation and Setup

Section 3: Data Definition Language

Section 4: More On Alter Table

Section 5: Data Manipulation

Section 6: Selecting from a Table

Section 7: Selecting From Multiple Tables

Datasource - SQL

Continuous Learning: Technical Enablement

Learn the basics of SQL



[SQL for Beginners: Learn SQL using MySQL and Database Design](#)

Refer sections 8, 9, 10, 11 and 12 in this Udemy course and complete the corresponding learnings.

Section 8: Database Design

Section 9: Creating a Cinema Booking System Database

Section 10: Aggregate Functions

Section 11: Subqueries

Section 12: MySQL Functions - String Functions and Date Functions

Continuous Learning: Technical Hands-on

Mandatory Hands-on

- Insert Records - Department
- Department name based on block number
- Student and their Department Based on City
- Concatenating Details
- Hotels that took order based on month
- Rental details based on return date

Additional Learning:

Technical Quizzes:

Quiz 2 - Database concepts

Day 23

Datasource - SQL

Continuous Learning: Technical Enablement

Learn the basics of SQL



[SQL for Beginners: Learn SQL using MySQL and Database Design](#)

Refer sections 13 and 14 in this Udemy course and complete the corresponding learnings.

Section 13: Challenges

Section 14: Extra Information -Source code, and other stuff

Continuous Learning: Technical Hands-on

Mandatory Hands-on

- No of time rented by each car
- Total sale daywise
- Maruthi car owner details
- Cars not taken for rent

Additional Learning:

Technical Quizzes:

Quiz 3 - ANSI SQL

Day 24

Datasource - SQL

Continuous Learning: Technical Enablement

Learn the basics of XML and JSON



[Learn API Technical Writing: JSON and XML for Writers](#)

Refer sections 1, 2, 3 and 4 in this Udemy course and complete the corresponding learnings.

Section 1: Introduction

Section 2: JSON

Section 3: XML

Section 4: Final Words

Continuous Learning: Technical Hands-on

Mandatory Hands-on

- Well Formed XML - Employee Detail
- Well Formed XML - Department Details
- Well Formed XML - Department Details -2
- Well Formed XML - Hotel Information
- Well Formed XML - Multiple Department Details

Day 25

Datasource - XML

Continuous Learning: Technical Enablement

Learn the basics of XML and JSON



[Learn API Technical Writing: JSON and XML for Writers](#)

Revisit the sections in this Udemy course and complete the corresponding learnings.

Assess-Type-1: Code Challenge

Assess-Type-1: Code Challenge 2 - DDL, DML & Select Statement

Assess-Type-1: Code Challenge 3 - JOINS and SUBQUERIES

Assess-Type-1: Code Challenge 4 - Scalar, Aggregate

Assess-Type-1: Code Challenge

Assess-Type-1: Code Challenge 5 – XML

Schedule – Stage 2: Week 6

Week 6 will be focusing on Selenium configuration and WebDriver Basics

Udemy learnings are recommended in the Platform to understand the fundamental concepts.

Apply the concepts learned and solve the Hands-on and Practice Case studies as recommended below.

Business Aligned Project (Mini Project/ Main Project/ Hackathon)

As the selenium learning starts, the project details (Mini project, Main project and the Hackathon) will be given for the learners so that they can parallel keep doing the project activities along with the rest of the learnings.

The given Mini/ Main Project and the Hackathon are expected to be completed on or before the end week of the program.

Project Evaluation will be based on:

- Source Code
- Functionality Completion, Usage of Features, Code Quality
- Demo of Output

Note:

Mini Project is an individual team member activity. Project Requirement is available in the platform

Main project is a group activity – your cohort would be divided into groups. Each group will get one project requirement from BU Project team (Internal CTS CAS Team). Because Project requirement is not available in platform.

Hackathon is a group activity. Project requirement is available in the platform.

Day 26

Automation Concepts, Selenium configuration, WebDriver Basics

Continuous Learning: Technical Enablement

Learn the basics of WebDriver Basics



[Selenium WebDriver MasterClass \(Basic + Advance + Architect\)](#)

Refer section 12 in this Udemy course and complete the corresponding learnings.

Section 12: Selenium WebDriver Basics : Start With Selenium

Day 27

Automation Concepts, Selenium configuration, WebDriver Basics

Continuous Learning: Technical Enablement

Learn the basics of WebDriver Basics



[Selenium WebDriver MasterClass \(Basic + Advance + Architect\)](#)

Refer section 12 in this Udemy course and complete the corresponding learnings.

Section 12: Selenium WebDriver Basics : Start With Selenium

Continuous Learning: Technical Hands-on

Mandatory Hands-on

- Object Identification By name

Day 28

Automation Concepts, Selenium configuration, WebDriver Basics

Continuous Learning: Technical Enablement

Learn the basics of WebDriver Basics



[Selenium WebDriver MasterClass \(Basic + Advance + Architect\)](#)

Refer section 13 in this Udemy course and complete the corresponding learnings.

Section 13: Concepts of WebElement in Selenium

Continuous Learning: Technical Hands-on

Mandatory Hands-on

- IdLocator
- All Web elements
- PageNavigation

Day 29

Automation Concepts, Selenium configuration, WebDriver Basics

Continuous Learning: Technical Enablement

Learn the basics of WebElement



[Selenium WebDriver MasterClass \(Basic + Advance + Architect\)](#)

Refer section 13 in this Udemy course and complete the corresponding learnings.

Section 13: Concepts of WebElement in Selenium

Continuous Learning: Technical Hands-on

Mandatory Hands-on

- Form Registration Basic
- Form Registration Advanced

Additional Hands-on

- User Registration PrintOptions - Basic Web Elements
- AgentRegistration Error Message - Basic Web Elements
- Login Servlet - Basic Web Elements
-

Additional Learning:

Technical Quizzes:

Quiz 1 - Automation Concepts, Selenium configuration, WebDriver Basics

Day 30

Automation Concepts, Selenium configuration, WebDriver Basics

Assess-Type-1: Code Challenge

Assess-Type-1: Code Challenge - Automation Concepts, Selenium configuration, WebDriver Basics

Schedule – Stage 2: Week 7

Week 7 will be focusing on Automation Techniques and Dynamic XPath

Udemy learnings are recommended in the Platform to understand the fundamental concepts. Apply the concepts learned and solve the Hands-on and Practice Case studies as recommended below.

Day 31

Selenium Automation Techniques, Dynamic XPath

Continuous Learning: Technical Enablement

Learn the basics of Automation Techniques and Dynamic XPath



[Selenium WebDriver MasterClass \(Basic + Advance + Architect\)](#)

Refer section 14, 15 and 16 in this Udemy course and complete the corresponding learnings.

Section 14: Become Genius in XPath: Create Dynamic XPaths

Section 15: Become Pro In CSS Selector

Section 16: Waits in Selenium WebDriver

Day 32

Selenium Automation Techniques, Dynamic XPath

Continuous Learning: Technical Enablement

Learn the basics of Automation Techniques and Dynamic XPath



[Selenium WebDriver MasterClass \(Basic + Advance + Architect\)](#)

Refer section 17, 18 and 19 in this Udemy course and complete the corresponding learnings.

Section 17: Master in Selenium WebDriver Part 1

Section 18: Master in Selenium WebDriver Part 2

Section 19: Master in Selenium WebDriver Part 3

Continuous Learning: Technical Hands-on

Mandatory Hands-on

- CSSLocator
- AbsoluteXpathLocator

Day 33

Selenium Automation Techniques, Dynamic XPath

Continuous Learning: Technical Enablement

Learn the basics of Automation Techniques and Dynamic XPath



[Selenium WebDriver MasterClass \(Basic + Advance + Architect\)](#)

Refer section 20 in this Udemy course and complete the corresponding learnings.

Section 20: Professional Selenium Script Preparation: Real Life Projects Live Automation

Continuous Learning: Technical Hands-on

Mandatory Hands-on

- Relative Xpath Locator
- Handling RegEx Selenium
- XPath Ancestor

Additional Hands-on

- StudentRegistration - Dynamic Xpath
- CommodityDetails - Dynamic Xpath
- CustomerRegistration - Dynamic Xpath
- Registration, Invalid - Dynamic Xpath

Day 34

Selenium Automation Techniques, Dynamic XPath

Continuous Learning: Technical Enablement

Learn the basics of Automation Techniques and Dynamic XPath



[Selenium WebDriver MasterClass \(Basic + Advance + Architect\)](#)

Refer section 20 in this Udemy course and complete the corresponding learnings.

Section 20: Professional Selenium Script Preparation: Real Life Projects Live Automation

Continuous Learning: Technical Hands-on

Mandatory Hands-on

- Work with Alerts
- Work with Javascript Executor
- Multiple Window
- Drag and Drop with Slider

Additional Learning:

Technical Quizzes:

Quiz 1 - Selenium Automation Techniques, Dynamic XPath

Day 35

Selenium Automation Techniques, Dynamic XPath

Assess-Type-1: Code Challenge

Assess-Type-1: Code Challenge 1 - Selenium Automation Techniques, Dynamic Xpath

Schedule – Stage 2: Week 8

Week 8 will be focusing on Selenium WebDriver with POM and ApachePOI

Udemy learnings are recommended in the Platform to understand the fundamental concepts. Apply the concepts learned and solve the Hands-on and Practice Case studies as recommended below.

Day 36

Selenium Webdriver with POM and ApachePOI

Continuous Learning: Technical Enablement

Learn the basics of WebDriver with POM and ApachePOI



[Selenium WebDriver MasterClass \(Basic + Advance + Architect\)](#)

Refer section 21 in this Udemy course and complete the corresponding learnings.

Section 21: Selenium : Data Driven Framework Implement From Scratch

Day 37

Selenium Webdriver With POM and ApachePOI

Continuous Learning: Technical Enablement

Learn the basics of WebDriver with POM and ApachePOI



[Selenium WebDriver MasterClass \(Basic + Advance + Architect\)](#)

Refer section 22 in this Udemy course and complete the corresponding learnings.

Section 22: Selenium Framework with Page Object Model (POM)

Continuous Learning: Technical Hands-on

Additional Hands-on

- AgentRegistration – ApachePOI

Mandatory Hands-on

- Applying POI - 1
- Applying POI – 2

Day 38

Selenium Webdriver With POM and ApachePOI

Continuous Learning: Technical Enablement

Learn the basics of WebDriver with POM and ApachePOI



[Selenium WebDriver MasterClass \(Basic + Advance + Architect\)](#)

Refer section 22 in this Udemy course and complete the corresponding learnings.

Section 22: Selenium Framework with Page Object Model (POM)

Continuous Learning: Technical Hands-on

Additional Hands-on

- FormRegistration, ReadExcelBySheetName - ApachePOI

Mandatory Hands-on

- Applying POI With POM – 1

Day 39

Selenium Webdriver With POM and ApachePOI

Continuous Learning: Technical Enablement

Learn the basics of WebDriver with POM and ApachePOI



[Selenium WebDriver MasterClass \(Basic + Advance + Architect\)](#)

Refer section 22 in this Udemy course and complete the corresponding learnings.

Section 22: Selenium Framework with Page Object Model (POM)

Continuous Learning: Technical Hands-on

Mandatory Hands-on

- Applying POI with POM – 2

Additional Hands-on

- InvoiceUpdates - ApachePOI

- ShippingDetails – ApachePOI

Additional Learning:

Technical Quizzes:

Quiz 1 - Selenium Webdriver With POM and ApachePOI

Day 40

Selenium Webdriver With POM and ApachePOI

Assess-Type-1: Code Challenge

Assess-Type-1: Code Challenge 1 - Selenium Webdriver With POM and ApachePOI

Schedule – Stage 2: Week 9

Week 9 will be focusing on Selenium with TestNG

Udemy learnings are recommended in the Platform to understand the fundamental concepts. Apply the concepts learned and solve the Hands-on and Practice Case studies as recommended below.

Day 41

Selenium with TestNG

Continuous Learning: Technical Enablement

Learn the basics of Selenium with TestNG



[Selenium WebDriver MasterClass \(Basic + Advance + Architect\)](#)

Refer section 11 in this Udemy course and complete the corresponding learnings.

Section 11: TestNG Framework :Test Management

Day 42

Selenium with TestNG

Continuous Learning: Technical Enablement

Learn the basics of Selenium with TestNG



[Selenium WebDriver MasterClass \(Basic + Advance + Architect\)](#)

Refer section 11 in this Udemy course and complete the corresponding learnings.

Section 11: TestNG Framework :Test Management

Mandatory Hands-on

- TestNG Annotations – 1
- TestNG Annotations – 2

Day 43

Selenium with TestNG

Continuous Learning: Technical Enablement

Learn the basics of Selenium with TestNG



[Selenium WebDriver MasterClass \(Basic + Advance + Architect\)](#)

Refer section 11 in this Udemy course and complete the corresponding learnings.

Section 11: TestNG Framework :Test Management

Continuous Learning: Technical Hands-on

Mandatory Hands-on

- Shipment Cost - TestNG with DataProvider

Additional Hands-on

- AddressBook – TestNG

Day 44

Selenium with TestNG

Continuous Learning: Technical Enablement

Learn the basics of Selenium with TestNG



[Selenium WebDriver MasterClass \(Basic + Advance + Architect\)](#)

Refer section 11 in this Udemy course and complete the corresponding learnings.

Section 11: TestNG Framework :Test Management

Continuous Learning: Technical Hands-on

Additional Hands-on

- ShipmentCharge - TestNG
- Shopify With Dataprovider - TestNG
- UserDetails - TestNG

Additional Learning:

Technical Quizzes:

Quiz 1 - Selenium with TestNG

Day 45

Selenium with TestNG

Assess-Type-1: Code Challenge

Assess-Type-1: Code Challenge 1 - Selenium with TestNG

Schedule – Stage 2: Week 10

Week 10 will continue on focusing Selenium with TestNG

Udemy learnings are recommended in the Platform to understand the fundamental concepts. Apply the concepts learned and solve the Hands-on and Practice Case studies as recommended below.

Day 46

Selenium with TestNG

Continuous Learning: Technical Enablement

Learn the basics of Selenium with Datasource XML Parsing



[Learn API Technical Writing: JSON and XML for Writers](#)

Refer sections 1, 2, 3 and 4 in this Udemy course and complete the corresponding learnings.

Section 1: Introduction

Section 2: JSON

Section 3: XML

Section 4: Final Words

Rehearse the below Lend a hand enablement given in platform

- XMLParser_Enablement

Followed by refer “Lend-a-Hand” code template with solution

- XML Parsing
- XMLParser_Solution Explanation

Day 47

Selenium with TestNG

Continuous Learning: Technical Enablement

Learn the basics of Selenium with Datasource XML Parsing



[Learn API Technical Writing: JSON and XML for Writers](#)

Refer sections 1, 2, 3 and 4 in this Udemy course and complete the corresponding learnings.

Section 1: Introduction

Section 2: JSON

Section 3: XML

Section 4: Final Words

Continuous Learning: Technical Hands-on

Mandatory Hands-on

- XMLParsing -1
- Work With XML and POM - 1
- Work With XML and POM - 2 (Commodity)
- Work With XML and POM - 3(Discount Calculator)

Day 48

Selenium with TestNG

Continuous Learning: Technical Enablement

Learn the basics of Selenium with Datasource XML Parsing



[Learn API Technical Writing: JSON and XML for Writers](#)

Refer sections 1, 2, 3 and 4 in this Udemy course and complete the corresponding learnings.

Section 1: Introduction

Section 2: JSON

Section 3: XML

Section 4: Final Words

Continuous Learning: Technical Hands-on

Mandatory Hands-on

- Work With XML and POM - 4(Shipment Detail)
- Work With XML and POM - 5(Customer Registration)

Day 49

Selenium with TestNG

Continuous Learning: Technical Enablement

Learn the basics of Selenium with Datasource JSON Parsing

Rehearse the below Lend a hand enablement given in platform

- JSONParsing_Enablement

Followed by refer “Lend-a-Hand” code template with solution

- JSON Parsing
- Json Solution Explanation

Continuous Learning: Technical Hands-on

Mandatory Hands-on

- JSONParsing - 1

Additional Learning:

Technical Quizzes:

Quiz 2 - Selenium with different DataSource

Day 50

Selenium with TestNG

Continuous Learning: Technical Hands-on

Mandatory Hands-on

- Work With JSON and POM - 1
- Selenium Mock ICT

Schedule – Stage 2: Week 11

Week 11 will be focusing on Selenium with BDD, Cucumber and WebServices

Udemy learnings are recommended in the Platform to understand the fundamental concepts. Apply the concepts learned and solve the Hands-on and Practice Case studies as recommended below.

Day 51

Digital technologies

Continuous Learning: Technical Enablement

Learn webservices testing with SOAPUI.



[WebServices/Rest API Testing with SoapUI +Real time Projects](#)

Refer sections 1, 2, 3, 4,5, 6, 7 and 8 in this Udemy course and complete the corresponding learnings.

Section 1-8: SOAP UI tool basic features, REST API, JSON Assertions, End-to-End framework design

Continuous Learning: Technical Hands-on

Mandatory Hands-on

- Simple SOAP UI web services project with WSDL
- Simple SOAP UI web services project with WADL

Day 52

Digital technologies

Continuous Learning: Technical Enablement

Learn webservices testing with SOAPUI.



[POSTMAN API Testing - Step by Step for Beginners](#)

Refer sections 1 to 13 in this Udemy course and complete the corresponding learnings.

Section 1-13: Collections, Variables, Environments, Test script creation, Data Driven testing, Authorization, Command line and JENKINS, Workspaced, monitors, Documentation, Remote Execution, SOAP UPI testing, API chaining and Mock API.

Continuous Learning: Technical Hands-on

Mandatory Hands-on

- Teamplayers

Day 53

Digital technologies

Continuous Learning: Technical Enablement

Learn SOAPUI Concepts.



[WebServices/Rest API Testing with SoapUI +Real time Projects](#)

Refer sections 1, 2, 3, 4,5, 6, 7 and 8 in this Udemy course and complete the corresponding learnings.

Section 1-8: SOAP UI tool basic features, REST API, JSON Assertions, End-to-End framework design

Continuous Learning: Technical Hands-on

Mandatory Hands-on

- Creation of new PostMan request with collection

Day 54

Digital technologies

Continuous Learning: Technical Enablement

Learn POSTMAN Concepts.



[POSTMAN API Testing - Step by Step for Beginners](#)

Refer sections 1 to 13 in this Udemy course and complete the corresponding learnings.

Section 1-13: Collections, Variables, Environments, Test script creation, Data Driven testing, Authorization, Command line and JENKINS, Workspaced, monitors, Documentation, Remote Execution, SOAP UPI testing, API chaining and Mock API.

Assess-Type-1: Code Challenge

Assess-Type-1: Code Challenge 1 - WebServices

Additional Learning:

Technical Quizzes:

Quiz 1 – WebServices

Day 55

Digital technologies

Continuous Learning: Technical Enablement

Learn BDD and Cucumber Concepts.



[Selenium WebDriver MasterClass \(Basic + Advance + Architect\)](#)

Refer sections 26 to 29 in this Udemy course and complete the corresponding learnings.

Section 26 - 29: Cucumber BDD framework, BDD framework using datadriven concept, Tags, Hooks, Page object model.

Assess-Type-2: Integrated Capability Test (ICT) - SELENIUM

Selenium ICT

Schedule – Stage 2: Week 12

Week 12 will be focusing on Selenium with BDD, Cucumber and DevOps

Udemy learnings are recommended in the Platform to understand the fundamental concepts. Apply the concepts learned and solve the Hands-on and Practice Case studies as recommended below.

Day 56

Digital technologies

Continuous Learning: Technical Enablement

Learn BDD and Cucumber Concepts.



[Selenium WebDriver MasterClass \(Basic + Advance + Architect\)](#)

Refer sections 26 to 29 in this Udemy course and complete the corresponding learnings.

Section 26 - 29: Cucumber BDD framework, BDD framework using datadriven concept, Tags, Hooks, Page object model.

Continuous Learning: Technical Hands-on

Mandatory Hands-on

- Simple cucumber project with php travels
- Simple cucumber project using data table
- Simple cucumber project using scenario outline

Day 57

Digital technologies

Continuous Learning: Technical Enablement

Learn BDD and Cucumber Concepts.



[Selenium WebDriver MasterClass \(Basic + Advance + Architect\)](#)

Refer sections 10 in this Udemy course and complete the corresponding learnings.

Section 10: Project Build Tool Maven.

Continuous Learning: Technical Hands-on

Mandatory Hands-on

- Mavenization using Eclipse M2E plugin Options and CLI commands

Day 58

Digital technologies

Continuous Learning: Technical Enablement

Learn Jenkins and GIT.

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[Selenium WebDriver MasterClass \(Basic + Advance + Architect\)](#)

Refer sections 24 in this Udemy course and complete the corresponding learnings.

Section 24: JENKINS + GIT.

Continuous Learning: Technical Hands-on

Mandatory Hands-on

- GIT installation & commands implementation
- Install Jenkins and Creation of new job

Day 59

Digital technologies

Continuous Learning: Technical Enablement

Learn GRID.



[Selenium WebDriver MasterClass \(Basic + Advance + Architect\)](#)

Refer sections 10, 24 to 29, 31 in this Udemy course and complete the corresponding learnings.

Section 31: Selenium Grid & Parallel Test Execution.

Section 10: Project Build Tool:Maven

Section 24 to 29: JENKINS + GIT, Cucumber BDD

Section 31: Selenium GRID

Continuous Learning: Technical Hands-on

Mandatory Hands-on

- Setup Grid and parallel execution

Technical Quizzes:

Quiz 2 - Cucumber and DevOps

Day 60

Business Aligned Project (Mini Project/ Main Project/ Hackathon)

The deliverables of the Mini/ Main project and the Hackathon will be evaluated by the BU SME.

Project Evaluation will be based on:

- Source Code
- Functionality Completion, Usage of Features, Code Quality
- Demo of Output

Schedule – Business Aligned Project

Overall Duration: Should start in parallel with the Stage 2 learnings and delivery during the 12th week of the training program.

There are 3 component as Project Deliverables.

- Mini Project
- Main Project
- Hackathon

The outcomes of doing **Mini Project** are:

- Enables learners to know on the environment setup
- Any web application is taken and learner try to automate given scenario using Selenium APIs

- Exhibits learner skills on automation of real time applications for smaller requirement.

The outcomes of doing **Main Project** are:

- Collaborate and deliver as a Team
- Align to the BU real business problem
- Build automation test suite.
- Implement the Hybrid automation frameworks (Prototype) with all mandatory features.
- Automating good coverage of Regression Test Cases.

The outcomes of doing **Hackathon** are:

- Explore the Innovative Implementations.
- Implement the Hybrid automation frameworks (Prototype) with all mandatory features.
- Implement Best practices such as creating **Smoke and Regression suite**.
- Implement **Maven** on the created automation test scripts
- Explore **Jenkins** to execute the test scripts periodically on Selenium Grid.
- Explore Selenium **Grid** to run test scripts on different platforms and against different browsers.
- Integrate Jenkins with version controller (**GIT**) and scheduled builds to run automatically.

How to learn each day?

Each day has a set of learning objectives. These learning objectives can be met by going through the Udemy courses and by completing the hands on exercises mentioned in the daily plan.

The below strategies will help you decide the learning approach.

Learning Strategy & Approach

Find below few imaginary profiles. For each of these profiles we have defined a recommended learning approach. This is not an exhaustive list. The approaches below might help invent a new way of learning.

Profile #1



Harry Reacher

Engineering Discipline: Electronics

Skills: Python, Ruby on Rails, nginx

Project: Mining Crime Data to get Route Cause Insights

Learning Approach to Programming Languages: I do not want to waste my time learning. I am more practice oriented. I want to work on the problem immediately

What will work for me?

- Directly complete hands on exercises
- Refer Internet or Udemy Courses
- If hands on are implemented early, clarify your friends questions and troubleshoot their issues

Profile #2



Olivia Richards

Engineering Discipline: Computer Science

Skills: Java, C, C++

Project: Library Management System

Learning Approach to Programming Languages: I have interest, but I don't know where to start.

What will work for me?

- Go through the recommended Udemy Course
- Try completing the hands on exercises
- Get your clarifications solved with help from Tech SME
- Get help from other learners in your batch whom had already completed

Profile #3



Greg Anderson

Engineering Discipline: Civil

Skills: C

Project: Fiber reinforced concrete

Learning Approach to Programming Languages: I am scared of programming languages. I haven't got my hands dirty with coding

What will work for me?

- Go through the recommended Udemy Course

- Implement the coding along with the author of the Udemy Course
- Try completing the hands on exercises
- Clarify queries with SME
- Troubleshoot programming issues with help from SME or learner from your classroom whom had already completed

FAQ

1. Who can participate in this program?

Students who have enrolled for Full Internship Program (or) the Cognizant on-boarded GEN Cs can participate in this program.

2. Is there any pre-learning I should do?

No. This program is open to all students from any academic discipline.

3. How will I know my RAG status?

It will be shown to you in the GEN C learn Platform, in your Home Page.

4. Whom do I reach out in case of any queries?

Coach is your point of contact.