



asmorix

# AI-Integrated Software Testing Program

**Job-Oriented for Freshers**

Learn Manual Testing, Automation (Selenium + Playwright), and AI-Powered Testing Tools

 BECOME JOB-READY QA ENGINEER WITH AI SKILLS

PLACEMENT-FOCUSED PROGRAM

AI-INTEGRATED TESTING PROGRAM

INTELLIGENT TEST ENGINEERING

100% PLACEMENT SUPPORT

ABOUT ASMORIX

# Next-Generation IT Training

Asmorix is a forward-thinking career training institute built for the AI era – combining industry-designed curriculum, AI-integrated pedagogy, and an unwavering focus on real placements.



## Mission

Equip every learner with job-ready tech skills that employers demand

## Vision

Become India's most trusted career training institute

# Why Asmorix?



Our program is meticulously crafted to offer a superior learning experience, blending innovative AI integration with practical, career-focused training.



## AI-Integrated Syllabus

Stay ahead with an industry-aligned curriculum that incorporates the latest advancements in AI for software testing.



## Expert Professional Trainers

Learn from real-time working professionals who bring invaluable industry experience and insights directly to your training.



## Hands-On Project Learning

Develop practical skills through project-based learning, building a robust portfolio of real-world applications.



## Placement-Focused Approach

Our entire program is geared towards your career success, from skill development to comprehensive placement support.



## Course Completion Certificate

Receive official recognition of your acquired skills and program completion, boosting your professional credentials.



## Internship Certificate

Validate your practical experience with a formal internship certificate, a testament to your real-world project contributions.

# Who Can Learn?



This program is designed for a diverse range of individuals passionate about building a career in software quality assurance, especially those eager to embrace the future of AI in testing.



## **Freshers**

Recent graduates with no prior IT experience, looking to kickstart their tech careers.



## **Non-IT Graduates**

Professionals from non-technical backgrounds seeking a smooth transition into the tech industry.



## **Students from Any Degree**

Individuals from all academic disciplines eager to acquire in-demand software testing skills.



## **Job Seekers**

Those actively seeking employment in the software testing domain, from entry-level to advanced roles.



## **AI Enthusiasts**

Anyone interested in specializing in the cutting-edge field of AI-integrated software testing.

# Program Objective

This program is designed to **transform freshers into job-ready QA professionals** by combining the three pillars of modern software quality assurance – all aligned with current industry demands.

## Manual Testing

Build a rock-solid foundation in test design, defect management, and QA methodologies used in Agile teams.



## Automation

Master Selenium with Java and Playwright – the two most in-demand automation frameworks in the industry today.

## AI-Powered Testing

Leverage cutting-edge AI tools and concepts to generate test cases, detect anomalies, and build self-healing automation.



# Career Outcomes



Upon completion of this program, you will be equipped for a range of in-demand roles, ready to contribute to any modern software quality assurance team.

---

## Software Tester

Perform comprehensive manual and functional testing across various platforms, ensuring software reliability.

---

## QA Engineer

Take ownership of quality processes, create detailed test plans, and manage defect lifecycles effectively.

---

## Automation Tester

Design, develop, and maintain robust automated test scripts and frameworks using industry-leading tools.

---

## AI-Assisted QA Engineer

Master the integration of AI tools and techniques to enhance testing efficiency and coverage in cutting-edge environments.

---

## Junior SDET

Bridge the gap between development and testing, contributing to code quality and testability throughout the software development lifecycle.

# Software Testing Fundamentals

Every great QA career begins with a strong conceptual foundation. This module covers the essential frameworks, methodologies, and roles that define professional software testing practice.



## SDLC & STLC Lifecycle

Understand the complete Software Development and Software Testing Life Cycle stages and how they interrelate.



## Testing Types & Levels

Explore unit, integration, system, and acceptance testing – and when each is applied in a real project.



## Agile & Scrum Methodology

Learn how QA fits into Agile sprints, ceremonies, and the Scrum framework used by modern dev teams.



## Bug Lifecycle

Trace a defect from discovery to closure, understanding every status transition and stakeholder responsibility.



## QA Roles & Responsibilities

Define the expectations, deliverables, and collaborative duties of a QA Engineer on a real project team.

# Manual Testing (Core)



## Test Case Design Techniques

### Boundary Value Analysis

Test at the edges of valid input ranges – where bugs are most likely to hide.

### Equivalence Partitioning

Divide inputs into valid and invalid classes to maximize coverage with fewer test cases.

## Core Manual Testing Skills

### → Writing Test Cases & Scenarios

Learn structured formats for documenting test steps, expected results, and pass/fail criteria.

### → Test Data Preparation

Design effective test data sets that cover all functional paths and edge cases.

### → Defect Reporting Standards

Write clear, reproducible defect reports with proper severity, priority, and steps to reproduce.

# Defect Management (JIRA)



## JIRA Workflow

Navigate Scrum and Kanban boards; configure statuses, transitions, and workflow rules.



## Creating Stories, Tasks & Bugs

Log work items correctly – from user stories to bug reports – with all required fields populated.



## Bug Lifecycle in Agile

Track defects through triage, assignment, fix, and verification within an active sprint cycle.



## Severity vs Priority

Understand the critical distinction between how severe a bug is and how urgently it must be fixed.



## Bug Tracking & Dashboards

Build and interpret reporting dashboards to communicate defect trends to the team and stakeholders.

# Web Application Testing

Web applications are the primary testing domain for most QA roles. This module gives you comprehensive coverage across all dimensions of web quality assurance.



## Functional Testing

Validate that every feature behaves as per business requirements.



## UI/UX Validation

Ensure visual accuracy, usability, and consistency across the user interface.



## Cross-Browser Testing

Verify application behavior across Chrome, Firefox, Edge, and Safari.



## Responsive Testing

Test layouts and interactions across different screen sizes and devices.



## Form & Session Testing

Validate forms, input fields, session management, and cookie behavior.



## Basic Security Testing

Understand foundational concepts: SQL injection, XSS, and authentication vulnerabilities.

# Mobile Testing Basics

## What You'll Learn

### 1 Mobile Testing Types

Functional, usability, performance, and security testing specific to mobile platforms.

### 2 Emulator vs Real Device

Compare the trade-offs between using emulators/simulators and physical mobile devices for testing.

### 3 Compatibility Testing

Validate your app across different OS versions, screen resolutions, and hardware configurations.

### 4 Intro to Appium (Concept)

Get introduced to the Appium automation framework – the industry standard for mobile test automation.



# SQL for Testers



A QA Engineer who understands databases is far more effective. This module equips you with the SQL skills needed to validate data integrity directly at the database level.

## Database Basics

Understand relational database concepts: tables, rows, columns, primary keys, and foreign keys that power every application backend.

## CRUD Operations

Execute **SELECT, INSERT, UPDATE, and DELETE** statements to read, create, modify, and remove data during testing.

## Joins & Subqueries

Write **INNER JOIN, LEFT JOIN**, and nested queries to validate complex data relationships across multiple tables.

## Data Validation

Verify that application actions correctly persist, update, and delete records in the database as expected.

# API Testing (Postman)



01

## REST API Fundamentals

Understand REST architecture, endpoints, resources, and how APIs power modern web applications.

02

## HTTP Methods & Status Codes

Master GET, POST, PUT, DELETE, and PATCH methods along with 2xx, 4xx, and 5xx response codes.

03

## Request/Response Validation

Inspect headers, body payloads (JSON/XML), and response time to verify API correctness.

04

## Authentication (Token/Bearer)

Test secured APIs using API keys, Bearer tokens, and OAuth 2.0 authentication flows in Postman.

05

## Postman Collections & Automation Basics

Organize requests into collections, write test scripts in JavaScript, and run automated API test suites.

# Automation Testing Fundamentals

## Core Concepts

### Automation Lifecycle

Plan, design, develop, execute, and maintain automated test suites through the entire testing lifecycle.

### When to Automate

Learn the criteria for automation ROI: repetitive tests, regression suites, and high-frequency scenarios.

### Automation Strategy

Design a test pyramid strategy balancing unit, integration, and end-to-end automated tests effectively.

### Intro to Modern Testing Tools

Survey the current landscape of automation tools and understand where Selenium and Playwright fit in.

## Selenium vs Playwright

### Selenium

Industry-standard, Java-based, broad browser support, extensive community, ideal for legacy enterprise projects.

### Playwright

Modern Node.js-based, built-in auto-waiting, parallel execution, network interception, rapidly growing adoption.

# Selenium with Java



Selenium with Java remains the most widely required skill in QA job descriptions. This module takes you from WebDriver basics to handling complex real-world web automation challenges.

## WebDriver Architecture

Understand how WebDriver communicates with browsers via JSON Wire Protocol or W3C WebDriver protocol.

## Locators (XPath, CSS)

Write robust locators using ID, name, class, XPath, and CSS selectors to identify web elements reliably.

## Handling Elements & Waits

Manage explicit, implicit, and fluent waits to synchronize your scripts with dynamic web pages.

## Frames, Alerts & Dropdowns

Interact with iFrames, JavaScript alerts, confirmations, and Select dropdowns in complex web UIs.

## File Handling & Screenshots

Automate file uploads and downloads, and capture screenshots on test failure for debugging.

# Playwright Automation — Modern Testing



Playwright is the fastest-growing automation framework, chosen by leading tech companies for its speed, reliability, and modern feature set. This comprehensive module covers everything you need to be production-ready.



## Setup & Architecture

Install and configure Playwright; understand its browser engine architecture and project structure.



## Writing Test Scripts

Author clean, maintainable test scripts using Playwright's expressive API and built-in assertions.



## Advanced Locators

Use role-based, text-based, and chained locators for resilient element selection.



## Auto-Waiting

Leverage Playwright's built-in auto-wait mechanism that eliminates flaky sleep-based synchronization.



## Cross-Browser & Parallel Execution

Run tests simultaneously across Chromium, Firefox, and WebKit with full parallel execution support.



## Network Interception

Intercept, mock, and modify network requests to test edge cases and isolate front-end behavior.



## Debugging (Trace Viewer)

Use Playwright's Trace Viewer to record, replay, and inspect test execution step by step.

# Test Framework Development



## POM

Page Object Model – separate UI logic from test logic for maintainable, scalable automation frameworks.



## TestNG Basics

Annotations, grouping, dependencies, parallel execution, and XML suite configuration with TestNG.



## Data-Driven Testing

Parameterize tests with external data sources – Excel, CSV, or JSON – to maximize test coverage.



## Reusable Components

Build utility libraries and helper methods that are shared across multiple test suites and modules.



## Logging & Reporting

Integrate Log4j for logging and Extent Reports for rich, interactive HTML test execution reports.

# Git & CI/CD for Testers

## Version Control with Git

1

### Git & GitHub Workflow

Init, clone, add, commit, push, pull – master the complete Git workflow for collaborative projects.

2

### Branching & Merging

Create feature branches, resolve merge conflicts, and manage pull requests in a team environment.

## CI/CD Integration

1

### Jenkins Basics

Install Jenkins, create freestyle and pipeline jobs, and understand the CI/CD build lifecycle.

2

### Running Automation in Pipeline

Trigger automated test suites as part of the CI pipeline – fail builds on test failures automatically.



Code Commit

Git Push

Jenkins Build

Run Tests

This CI/CD pipeline ensures that every code commit automatically triggers your test suite – giving the team instant feedback on code quality.

# AI in Software Testing

## Introduction to AI in QA

Understand how machine learning and AI are reshaping the quality assurance landscape in modern software delivery.

## AI vs Traditional Testing

Compare rule-based testing approaches with AI-driven testing – speed, coverage, and adaptability differences.

## Test Case Generation Using AI

Use AI models to automatically generate test cases from requirements, user stories, and application behavior.

## Smart Test Data Generation

Leverage AI to create diverse, realistic, and edge-case-rich test data sets without manual effort.

## Predictive Defect Analysis

Apply ML models to historical defect data to predict which code areas are most likely to contain bugs.

## Self-Healing Automation Concepts

Explore AI systems that automatically detect and repair broken locators when the UI changes.

# Advanced AI Concepts in Testing

Go beyond the basics – this module explores cutting-edge AI applications that represent the future of software quality assurance at enterprise scale.



## NLP for Test Case Creation

Use Natural Language Processing to convert plain English acceptance criteria directly into executable test cases.



## AI-Based Anomaly Detection

Train models to identify unusual application behavior, performance regressions, and functional deviations automatically.



## Visual Testing (Computer Vision)

Apply computer vision algorithms to detect pixel-level UI regressions and visual inconsistencies across releases.



## Autonomous Testing Systems

Understand systems that can explore an application, generate tests, and execute them with minimal human intervention.

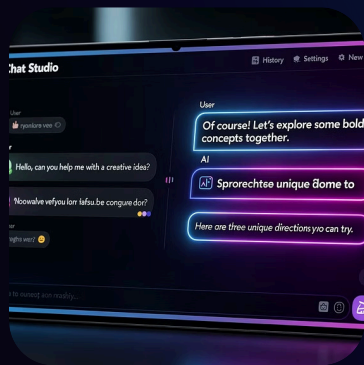


## Model-Based Testing Concepts

Use abstract models of system behavior to automatically derive and generate optimal test cases and coverage paths.

# AI Tools for Testers

Hands-on familiarity with industry AI testing tools is what separates a modern QA Engineer from the rest. Get exposure to the most sought-after platforms in the market today.



## ChatGPT

Use large language models to generate test cases, test plans, and bug report templates instantly from prompts.



## Testim

AI-powered test authoring and self-healing capabilities for stable, low-maintenance end-to-end test automation.



## Functionize

Autonomous testing platform using ML to write, run, and maintain tests that adapt to application changes.



## Mabl

Cloud-native intelligent test automation with auto-healing, insights, and seamless CI/CD integration.



## QA Wolf

Automated test creation and maintenance service that generates Playwright scripts from browser interactions.



## AppliTools

Visual AI testing platform using computer vision to detect UI regressions invisible to traditional assertions.



## Playwright + AI Workflows

Combine Playwright's powerful automation engine with AI test generation for smart, next-gen test frameworks.

# Real-Time Projects



Theory meets practice. You will build and deliver four production-quality projects that become the cornerstone of your QA portfolio — demonstrating real skills to every potential employer.

## Web Application Testing Project

Execute end-to-end manual and functional testing on a live web application — test cases, defect reports, and JIRA tracking included.

## API Testing Project

Build a complete Postman collection for a REST API, covering all endpoints, authentication, and automated validation scripts.

## Automation Framework

Design and implement a full POM-based Selenium or Playwright automation framework with TestNG, reporting, and CI/CD integration.

## AI-Based Test Case Generator

Build an AI-assisted tool that takes requirements as input and generates structured test cases using ChatGPT or similar LLM APIs.

# Placement Preparation & Internship

## Your Career Launch Pad

### 1 Resume Building

Craft an ATS-optimized QA resume that highlights your manual testing, automation, and AI tool skills – tailored to real JDs.

### 2 Interview Preparation

Study the most frequently asked manual, automation, and AI testing interview questions with model answers and tips.

### 3 Mock Interviews

Face realistic mock interview sessions with expert mentors – get detailed, actionable feedback to sharpen your performance.

### 4 Real-Time Project Exposure

Work on live, industry-grade projects during the internship phase – building confidence and practical experience that employers value.






# Deliverables & Outcomes



By the end of this program, you will have a complete, job-ready QA profile – with verifiable credentials, real project work, and the skills to confidently step into your first professional role.

## What You Receive

-  **Manual + Automation Projects**  
Portfolio-ready projects covering the full QA spectrum – ready to showcase in interviews.
-  **Playwright + Selenium Experience**  
Hands-on expertise in both leading automation frameworks that employers are actively hiring for.
-  **AI-Based Testing Project**  
A standout portfolio piece demonstrating next-generation QA skills – rare among freshers.
-  **Internship Certificate**  
An industry-recognized internship certificate validating your real-world project experience.
-  **Course Completion Certificate**  
Official certificate of completion from Asmorix – a credential that strengthens every application.
-  **Placement Support**  
Dedicated placement assistance including job referrals, interview scheduling, and hiring partner access.

## Career Roles You're Ready For



### Software Tester

Join QA teams executing manual testing across web, mobile, and enterprise applications.



### QA Engineer

Own quality processes, write test plans, manage defects, and collaborate closely with developers.



### Automation Tester

Build and maintain automation frameworks using Selenium or Playwright integrated with CI/CD pipelines.



### AI-Assisted QA Engineer

The role of the future – leverage AI tools to accelerate testing, reduce manual effort, and improve coverage.

# Comprehensive Course Details



Get a clear overview of the program structure, financial commitment, and flexible learning options designed to fit your schedule.

<b>Program Duration</b>	3 Months
<b>Course Fees</b>	₹45,000 (Indian Rupees)
<b>Learning Mode</b>	Online (Live Interactive Sessions)

## Batch Options & Session Timings

### Weekday Batches

2 Hours/Day (Monday – Friday)

### Weekend Batches

4 Hours/Day (Saturday – Sunday)

# Placement Criteria - Asmorix

To successfully secure a placement and leverage the opportunities provided, candidates are expected to fulfill the following key requirements throughout the program:



Attend all scheduled interviews



Complete all assigned projects and mock interview sessions



Ensure daily task completion and timely submissions



Practice consistently on all learned modules



Actively work on multiple real-time projects for practical experience



For early passouts or those with a career gap: completion of minimum 4+ projects is essential



Attend all aptitude and dedicated placement training sessions



Code and practice problem-solving daily to sharpen skills



Maintain a minimum of 90% attendance throughout the program

# Hear from our students who transformed their careers with Asmorix training programs.



Real students. Real transformations. Real placements.



**Nandhini**

*Software Tester · 3.0 LPA*

I joined with zero IT knowledge. The structured training and real-time project experience helped me understand testing concepts clearly. I was able to crack interviews confidently and got placed quickly. Thanks to Asmorix.



**Sivaraman VS.**

*Automation Tester · 4.2 LPA*

The project-based learning and hands-on automation training made a huge difference. I built strong practical skills and improved my confidence in interviews. The placement support was very helpful.



**Keerthana D.**

*QA Engineer · 3.5 LPA*

Asmorix helped me transition from non-IT to IT smoothly. The mock interviews and continuous guidance played a key role in getting my first job. The support team was always there to help.

# Hiring Partners & Industry Network



Asmorix has strong tie-ups with 300+ IT companies, building a continuously growing network of mid to large-scale hiring partners that creates consistent job opportunities and connects students with the right employers to kickstart their careers.



**Placement Support:** Dedicated placement assistance including resume forwarding, interview scheduling, and employer connect sessions for all program graduates.

# Contact Asmorix

## Head Office — Chennai

2nd Floor, SKCL Tech Square  
South Phase, SIDCO Industrial Estate  
Guindy, Chennai – 600032

## Branch Office — Pondicherry

Plot No. 72, Sri Aurobindo Win City  
Uththiravaginipeet, Villianur  
Pondicherry – 605110

Start your IT career with confidence at Asmorix. Gain hands-on experience, master manual, automation, and AI-powered testing, and get placed with our dedicated support.



## Get in Touch

Phone: [+91 81900 98289](tel:+918190098289)

WhatsApp: +91 81900 98289

Email: [hr@asmorix.com](mailto:hr@asmorix.com)

Website: [www.asmorix.com](http://www.asmorix.com)

Instagram: [@asmorix\\_official](https://www.instagram.com/asmorix_official)

[View on Google Maps](#)

---

## Working Hours:

Mon – Sat: 9:00 AM – 7:00 PM

[Book Free Demo](#)

[Chat on WhatsApp](#)

## 300+ Hiring Partners | Unlimited Placement Support

Ready to start your IT career? Book a free counselling session today and take the first step towards becoming a Software Testing Professional.