



# LiveTech

Since 2004



# AI TESTING

## Agentic AI & Gen AI



# Best I.T Training and Placement Institute



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# AI TESTING

## Gen AI & Agentic AI

### AI-Driven Software QA Master Course

**Scope:** Manual Testing, Playwright (TypeScript + C#), Selenium (C#), API Testing, CI/CD, and AI Agentic Testing

**Approach:** Teach QA with an AI-first mindset — Code, Test, Debug, and Analyze using AI copilots and agents.

#### **Module 1: Introduction to AI in Software QA**

- Evolution: Manual → Automation → Cognitive → AI-Agentic QA
- Understanding AI, LLMs, and Autonomous Agents
- Role of AI copilots in QA workflows
- How to integrate AI tools into SDLC
- Intro to AI-based reasoning, self-healing, and test adaptation
- Using LLMs (GPT, Claude, Gemini, LLaMA, Mistral) for testing use cases

#### **Hands-On Labs**

- Convert user stories to test cases using ChatGPT and Cursor
- Build prompts for requirement-to-test coverage

#### **Free IDEs & AI Tools**

| Category                       | Tools                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Highlights                           |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| <b>AI-Powered IDEs</b>         |  <b>Cursor</b> (AI code assistant IDE)<br> <b>Windsurf IDE</b> (AI-native TypeScript + Web IDE)<br> <b>Continue.dev Plugin</b> (ChatGPT inside VS Code)<br> <b>Zed AI Editor</b> (fast AI-native editor) | Context-aware code & test generation |
| <b>Traditional IDEs (Free)</b> | VS Code, Visual Studio Community, JetBrains IntelliJ Community                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Compatible with Copilot & AI plugins |
| <b>AI Assistants</b>           | GitHub Copilot, Codeium (free), Tabnine, ChatGPT, Claude.ai                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Auto-generate & optimize test logic  |

#### **Module 2: AI-Enhanced Manual Testing**

- AI-assisted test case generation
- Intelligent test data & boundary value generation
- Automated RTM creation with AI
- Voice-to-test documentation
- Test report summarization using LLMs
- Predictive defect analytics

#### **Labs**

- Generate 100+ manual test cases using ChatGPT and Gemini
- Auto-generate bug reports using AI and project logs

#### **Tools**

- ChatGPT, Gemini, Notion AI, TestGPT
- Trello + AI Power-Ups, XMind AI



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### **Module 3: Playwright + TypeScript (AI-Augmented)**

- Setup with VS Code, Cursor, or Windsurf IDE
- Framework setup with POM & fixtures
- AI-generated selectors and auto-waiting logic
- Voice → code automation (AI transcription APIs)
- Visual testing with AppliTools AI SDK
- Self-healing locators via Testim/AI extensions
- AI-based test result summarization

#### **Labs**

- Write Playwright tests using natural language in Cursor
- Auto-generate Playwright POM classes using Codeium
- Integrate AI visual validation

#### **Tools**

- Playwright + TypeScript
- Cursor IDE / Continue Plugin
- AppliTools (free plan), Percy
- LangChain + Flowise (for AI test orchestration)

### **Module 4: Playwright + C# (AI Co-Developed Framework)**

- Setup with Visual Studio Community + Copilot Chat
- AI-driven locator generation and maintenance
- OpenAI API integration for adaptive testing
- NLP to C# test generation
- Intelligent retrying and auto-repair of broken tests
- Test data synthesis via AI

#### **Labs**

- Use Copilot & ChatGPT to create Playwright-C# POM structure
- Auto-generate data sets using AI APIs
- Integrate Azure OpenAI for test improvement suggestions

### **Module 5: Selenium + C# (AI-Powered Framework)**

- Selenium setup (C# + NUnit)
- AI-generated XPath and CSS selectors
- Visual validation (AI image diffing)
- Chat-driven automation test execution
- Predictive failure analysis

#### **Labs**

- Build a Selenium framework that uses AI for locator healing
- Implement AI auto-classification of failures

#### **Tools**

- Visual Studio Community + Copilot
- Selenium WebDriver
- AppliTools / Testim / Mabl (AI testing tools)
- Azure OpenAI API



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### 🌱 **Module 6: AI-Driven API Testing**

- Using AI to auto-generate endpoints & payloads
- Chat-based API testing
- Schema validation and contract testing with LLMs
- AI for API regression analysis

#### ⚙️ **Tools**

- Postman + AI Assistant
- Newman CLI for automation
- TestGPT or ChatGPT for API test generation

### 📊 **Module 7: AI in Test Management & Analytics**

- AI-based test planning, prioritization & effort prediction
- AI dashboards using Power BI + Copilot
- Auto-risk classification of modules using AI
- Natural language test summaries

#### ⚙️ **Tools**

- Jira + AI Assistant
- Power BI + Copilot
- Qase.io (AI-based test management)

### 💻 **Module 8: AI + CI/CD**

- Smart test selection based on code impact
- Predictive failure prevention using AI
- AI in Azure DevOps & GitHub Actions
- Intelligent notifications and report generation

#### ⚙️ **Tools**

- GitHub Actions (free tier)
- Azure Pipelines (free tier)
- Jenkins + AI plugins
- Copilot for YAML optimization

### 🚀 **Module 9: Agentic AI Testing**

- What are QA Agents (autonomous testers)
- Create testing agents with LangChain, CrewAI, Flowise, or AutoGPT

#### **Agents that:**

- Generate tests
- Execute and debug failures
- Analyze logs and raise bugs
- Create intelligent summaries
- Integrate voice/vision models into QA automation

# AI TESTING

## Gen AI & Agentic AI

### ⚙️ Tools

| Type                 | Tools                                   | Description                   |
|----------------------|-----------------------------------------|-------------------------------|
| Agent Frameworks     | LangChain, Flowise, CrewAI, AutoGPT     | Create custom QA agents       |
| Local LLMs (Offline) | Ollama (LLaMA, Mistral)                 | Run AI locally for privacy    |
| AI UI Builders       | Gradio, Streamlit                       | Build AI-driven dashboards    |
| Voice & Vision APIs  | OpenAI Realtime, Whisper, Gemini Vision | Test with voice & image input |

### 🔗 Module 10: Capstone Project

**Deliverable:** Fully AI-Augmented Test Platform

- Manual Test Plan (AI-generated)
- Playwright TS & C# Framework
- Selenium C# Suite
- API Automation
- CI/CD Integration
- Agentic AI Bots for Test Maintenance
- AI-Powered Dashboards (Voice & Visual Reports)

### ⚙️ Recommended Stack

- Cursor or Windsurf IDE
- Playwright, Selenium, Postman
- Azure OpenAI or Ollama
- LangChain + Flowise + Gradio
- GitHub Actions for CI/CD

### 📁 Trainer Resources (Free & Practical)

| Area             | Tools                               | Notes                      |
|------------------|-------------------------------------|----------------------------|
| AI IDEs          | Cursor, Windsurf, Continue.dev, Zed | AI-native dev environments |
| Traditional IDEs | VS Code, Visual Studio Community    | Best for .NET and JS       |
| AI Assistants    | GitHub Copilot, Codeium, Tabnine    | Intelligent coding aids    |
| AI Agents        | LangChain, CrewAI, AutoGPT, Flowise | Custom autonomous testers  |
| Visual Testing   | Applitools, Percy                   | Free AI visual validation  |
| Data Tools       | Notion AI, Gemini, ChatGPT          | Requirements and docs      |
| CI/CD            | Azure DevOps, GitHub Actions        | Free tiers for small teams |



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## 1000+ Recruitment Partners



## Placed Students

|                                                                                                                                          |                                                                                                                                              |                                                                                                                                       |                                                                                                                                            |                                                                                                                                              |                                                                                                                                     |                                                                                                                                                 |                                                                                                                                            |                                                                                                                                         |                                                                                                                                       |                                                                                                                                            |
|------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| <br>G.Sravani<br>Black Hawk<br>CTC: 10 LPA             | <br>T. Premsai<br>Zemoso<br>CTC: 6.89 LPA                 | <br>V. Balaraju<br>Zemoso<br>CTC: 6.89 LPA         | <br>SN. Nagarjuna<br>Cerner<br>CTC: 6.0 LPA             | <br>Anjali Kumari<br>e-Team info services<br>CTC: 4.5 LPA | <br>D. Supriya<br>First American<br>CTC: 4.4 LPA | <br>CH. Mohan Gopi Krishna<br>First American<br>CTC: 4.4 LPA | <br>K. Alekhya<br>Darwinbox<br>CTC: 4.32 LPA           | <br>K. Bhanu<br>Darwinbox<br>CTC: 4.32 LPA         | <br>G.Venkatesh<br>Darwinbox<br>CTC: 4.32 LPA    | <br>M.Sravani<br>IBM<br>CTC: 4.2 LPA                  |
| <br>D.Vishnu Sagar<br>Delta Technology<br>CTC: 4.0 LPA | <br>MD. Rashid Jawaid<br>Delta Technology<br>CTC: 4.0 LPA | <br>N.Spandana<br>Delta Technology<br>CTC: 4.0 LPA | <br>A. Jaya Krishna<br>Delta Technology<br>CTC: 4.0 LPA | <br>K. Alekhya<br>Delta Technology<br>CTC: 4.0 LPA        | <br>N.Kavya<br>Delta Technology<br>CTC: 4.0 LPA  | <br>G. Rambabu<br>JD Sports Fashion<br>CTC: 4.0 LPA          | <br>D. Srividya<br>Darwinbox<br>CTC: 4.0 LPA           | <br>A. Satya Prakash<br>Corpus<br>CTC: 3.6 LPA     | <br>N.Suresh<br>Corpus<br>CTC: 3.6 LPA           | <br>S. Divya<br>Infosys<br>CTC: 3.6 LPA               |
| <br>M. Lokesh Reddy<br>Infosys<br>CTC: 3.6 LPA         | <br>KLV. ShivaSai<br>Darwinbox<br>CTC: 3.6 LPA            | <br>T. Vineetha<br>Darwinbox<br>CTC: 3.6 LPA       | <br>Sushmitha<br>TCS<br>CTC: 3.53 LPA                   | <br>C. Hasini<br>Gaian Solutions<br>CTC: 3.5 LPA          | <br>M.Ramya<br>Gaian Solutions<br>CTC: 3.5 LPA   | <br>M. Shivakumar<br>Gaian Solutions<br>CTC: 3.5 LPA         | <br>B. Sandhya Rani<br>Gaian Solutions<br>CTC: 3.5 LPA | <br>E. Bharathi<br>Gaian Solutions<br>CTC: 3.5 LPA | <br>D. Sowmya<br>Gaian Solutions<br>CTC: 3.5 LPA | <br>B. Sravani<br>TCS<br>CTC: 3.5 LPA                 |
| <br>V. Rakesh<br>Defteam<br>CTC: 3.5 LPA               | <br>Ajay Jikare<br>TCS<br>CTC: 3.36 LPA                   | <br>Govind Dasharath<br>TCS<br>CTC: 3.36 LPA       | <br>K.Tharun<br>Piersoft<br>CTC: 3.0 LPA                | <br>B. Ananya<br>Pronix<br>CTC: 3.0 LPA                   | <br>Poorna<br>Capgemini<br>CTC: 3.0 LPA          | <br>T. Kalyankar<br>Infosys<br>CTC: 3.0 LPA                  | <br>Vijay Reddy<br>NCR<br>CTC: 3.0 LPA                 | <br>M. Vandana<br>Smart Data<br>CTC: 3.0 LPA       | <br>M. Gopi<br>Smart Data<br>CTC: 3.0 LPA        | <br>S.Venkat Reddy<br>Aryagami Cloud<br>CTC: 2.76 LPA |



## Courses We Offer

### Testing Programs

-  **Testing Tools**  
Functional Test Engineer
-  **Manual Testing**  
Manual Test Engineer
-  **Selenium Testing**  
Automation Test Engineer
-  **TOSCA**  
TOSCA Test Engineer
-  **API&ETL Testing**  
API Test Engineer
-  **Performance Testing**  
LoadRunner & JMeter

### Developing Programs

-  **Full Stack Java**  
Full Stack Java
-  **Core Java**  
Core Java
-  **Adv Java & Frameworks**  
Adv Java & Frameworks
-  **Full Stack Python**  
Full Stack Python
-  **Python Programming**  
Python Programming
-  **DJANGO & Frameworks**  
DJANGO & Frameworks

### Advanced Programs

-  **DevOps**  
DevOps Engineer
-  **Data science with AI**  
Data science with AI
-  **Data Analytics**  
Data Analytics
-  **Selenium with C#**  
Selenium with C#
-  **Playwright Automation**  
Playwright Automation
-  **Python with Selenium**  
Python with Selenium

## Training Methodology

### Class room Training



### Project Training



### Resume Preparation



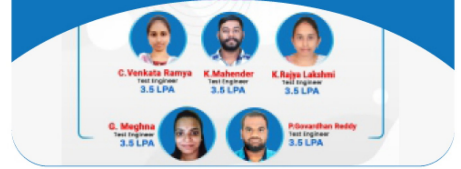
### Certification



### Interview Preparation



### Placement Assistance



## Our Infrastructure

