

# AI CONSULTANT + AI TESTER TRAINING

# **COURSE OVERVIEW**

This course equips learners with a solid foundation in software testing principles, test automation using Python, and exposure to emerging trends in Al-assisted testing. By the end of the course, participants will be able to design, implement, and manage test cases for web, API and AI/ML applications also automate tests using Python-based tools, by using AI driven testing techniques.

This 30 hour tutor-led software testing course includes lectures, exercises and practical work, as well as exam preparation.

The examination is held a day or so after the course to allow time for revision.

#### WHO SHOULD ATTEND:

This course is ideal for beginners, business professionals, students, and anyone interested in Quality Assurance gaining a solid understanding of Testing, Automation and AI technologies and their real-world applications and how to test.



# **COURSE CONTENTS**

- 1. BASICS OF AI
- 2.AI PRODUCTIVITY TOOLS (HANDS-ON OVERVIEW)
- **3.PROMPT ENGINEERING**
- 4. MACHINE LEARNING MODELS
- 5. LARGE LANGUAGE MODELS(OPENAI, CLAUDE, GEMINI)
- 6. MCP SERVERS
- 7.RAG
- 8. AI AGENTS
- 9. AGENTIC AI
- 10. END TO WORKFLOWS USING AI AGENTS
- 11. NATURAL LANGUAGE PROCESSING (NLP) FOR TESTERS
- 12. GENERATIVE AI (LLMS LIKE CHATGPT, GEMINI, CLAUDE, COPILOT)
- 13. AI IN SOFTWARE TESTING LIFECYCLE (PRACTICAL INTEGRATION)
- 14. AI TOOLS FOR TESTERS
- 15. AI ETHICS AND SECURITY IN TESTING
- 16. PROJECT



### 1. Basics of Al

- Step into the world of Artificial Intelligence
- Definition and goals of AI: Narrow, General, and Super AI
- Real-world applications: chatbots, recommendation systems, selfdriving cars, healthcare assistants
- Difference between AI, Machine Learning, and Data Science
- How Al systems "think" and make decisions
- Ethical and responsible use of AI

# 2. Al Productivity Tools (Hands-On Overview)

- ChatGPT, Claude, Gemini text intelligence
- Midjourney, DALL-E 3 image generation
- ElevenLabs, PlayHT voice synthesis
- Runway, D-ID video and digital avatar creation
- LangChain, AutoGPT, and Vercel SDK frameworks for agent and app development
- Bubble.io & Gradio building Al apps visually (no code required)

# 3. Prompt Engineering

- Learn how AI tools like ChatGPT, Gemini, and Claude interpret prompts and why clarity matters.
- Understand system, user, and associate prompts when and how to use each effectively.
- Write structured, context-rich prompts using roles, examples, and clear instructions.
- Refine and test prompts through iteration for accuracy, tone, and consistency.
- Apply ethical and responsible prompting, ensuring fairness, factuality, and safety.

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# 4. Machine Learning Models

- Introduction to Machine Learning and its types: Supervised, Unsupervised, and Reinforcement Learning
- Understanding key algorithms such as Decision Trees, Regression, and Clustering (conceptual, no coding)
- Real-world case studies: spam filters, product recommendations, anomaly detection
- How ML models are trained, validated, and deployed
- Future trends: AutoML and no-code ML platforms

# 5. Large Language Models (OpenAl, Claude, Gemini, etc.)

- Dive into the Al brains behind today's conversational tools like ChatGPT and Claude.
- How Transformers and LLMs like GPT, BERT, and T5 work (simplified overview)
- Understanding prompts, context windows, and tokenization
- Hands-on demos: using OpenAl Playground & Hugging Face models
- Use cases: content generation, text summarization, chatbots, and automation

## 6. MCP Servers (Model Context Protocol)

- What is the Model Context Protocol (MCP) and how it connects AI models with real-world data sources
- Hosting and managing AI backends using MCP servers
- Overview of integrating AI tools and services under one architecture
- How MCP enables plug-and-play AI agents and automation pipelines

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## 7. RAG (Retrieval-Augmented Generation)

- What is RAG and how it enhances LLM accuracy
- Using your own data sources (PDFs, websites, databases) with Al
- Concept of vector databases and embeddings (simplified demo)
- Real-world use cases: customer-support bots, knowledge assistants, research copilots
- Building a mini RAG workflow using OpenAl API + LangChain (no code)

# 8. Al Agents

- Introduction to Al Agents and multi-agent systems
- Types: Reactive, Deliberative, and Hybrid Agents
- Use cases: task automation, workflow orchestration, scheduling, and data analysis
- Essential frameworks: AutoGPT, SuperAGI, Fixie.ai, LangGraph
- Build a simple Al Agent workflow to complete multi-step business tasks

# 9. Agentic Al

- What "Agentic Al" means and how it extends beyond single Al prompts
- How multiple agents collaborate and make decisions dynamically
- Example: An AI that plans, researches, and executes tasks automatically
- The role of context engineering, memory, and feedback loops in reliable agents
- Build an Agentic Al Flow using no-code platforms like n8n, LangFlow, or Flowise

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## 10. End-to-End Workflows Using Al Agents

- Designing a complete workflow using AI tools and agents
- Connect LLMs, databases, APIs, and automations
- Build a live "Al-powered business assistant" (no coding)
- Integration with MS Teams, Google Workspace, and CRM tools
- Project: Automate your own business task using Agentic Al

# 11. Natural Language Processing (NLP) for Testers

- Introduction to NLP & Text Analytics
- Sentiment and Intent Analysis

#### **Use Cases:**

- Converting requirements or user stories to test cases
- Generating test data and input variations using NLP
- Practical Demo: Use OpenAl API or HuggingFace to parse user stories

# 12: Generative Al (LLMs like ChatGPT, Gemini, Claude, Copilot)

- How LLMs understand and generate content
- Prompt Engineering for QA scenarios
- Using Generative AI to:
- Write detailed Test Cases and BDD Scenarios
- Generate Test Data, SQL Queries, and Automation Code Snippets
- Summarize Defects and Test Reports
- Hands-on: Create and validate Al-generated test scripts



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## 13.AI in Software Testing Lifecycle (Practical Integration)

- Al in Test Planning: Risk-based prioritization using historical defect data
- Al in Test Case Design:
- Auto-generation from requirements (via NLP + LLMs)
- Duplicates and redundancy detection

### Al in Test Execution:

- Self-healing test scripts
- Intelligent test scheduling
- Visual testing with Al-based object detection

## Al in Defect Management:

- Predicting defect severity & recurrence
- Auto-classifying and assigning bugs
- Al in Test Automation:
- Low-code Al tools (Testim, Functionize, Mabl)
- Integration with Selenium, other tools
- Smart locators and script healing
- Hands-on Mini Project
- Al-Assisted Regression Testing using ChatGPT + Selenium
- Generate, execute, and analyze a test suite with Al support

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### 14.AI Tools for Testers

- ChatGPT for QA Tasks
- GitHub Copilot for automation coding
- Mabl / Testim / Functionize overview
- Tricentis Al-powered testing
- Al Plugins for Jira

# 15.AI Ethics and Security in Testing

- Responsible Al usage in QA
- Bias detection in Al-based testing
- Test Data Privacy & GDPR considerations
- Al Governance and Quality Assurance

# 16.Project

- Al-Driven Test Lifecycle Implementation
- End-to-end project covering:
- Requirement → Test Case Generation (via AI)
- Execution → Self-Healing Automation
- Defect Prediction → Al-based Analytics Dashboard



<u>ENROLMENT LINK:</u> https://2ejigc.share-eu1.hsforms.com/2SQ-i8DNuRGGCToDw57h6tg

<u>TARGET JOBS:</u> Al Consultant, Al Engineer, Al Solutions Architect, Al Test Engineer,

Salary: START FROM 60K

**DURATION: 40 TO 50 HOURS** 

**SCHEDULE:** 3 BATCHES

Weekend Batch - Sat and Sun 10 am - 1 pm or 2pm - 5pm Weekday Batch - Mon, Wed, Thur 6pm -8pm Weekday Batch - Mon, Wed, Thur 11am -1pm

#### **MODE OF TRAINING:**

ONLINE (MS TEAMS) OR FACE TO FACE

#### **BENEFITS:**

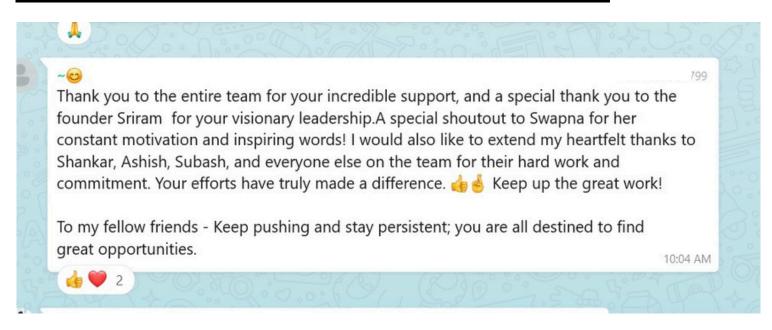
- Recorded sessions: Every session will be recorded in Ms Teams so that you can review the class any time upto 3 months.
- Course material: Every session will be backed up by the course content in pdfs, docs and excel so that it will help for further learning and homework.



# RECENT TESTIMONIAL FROM KARTHIKEYAN:

"I am a Data Scientist actively seeking placement opportunities in the UK. During my search, I discovered IT Talent Hub and utilized their services. Thanks to their assistance, I am now successfully placed in a reputable company. I am immensely grateful to the department faculty, Subash and Swapna, as well as Director Sree Ram, and the placement cell for their invaluable guidance throughout the process. My experience with IT Talent Hub and its placement procedure was truly exceptional. The placement cell exhibited thorough knowledge and provided support at every stage"

# RECENT TESTIMONIAL FROM POOVALAZHI



# TO KNOW MORE DETAILS AND FEE STRUCTURE

# Contact us

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- **Ⅲ** ITTALENTHUB.CO.UK
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# **DISCOUNT:**

Many discounts like Student, Alumni, Referral etc available.

# **General FAQ:**

- 1.Duration of the course 40 to 50 Hours
- 2.Do you provide materials for the course? YES. Running notes, Admin guides etc, teams recordings.
- 3. What is the course fee? The fee for the total duration of the course, including tutor fees, course material is £1299.
- 4. What courses do you offer for students?Al TestingAl Consultant/Engineering

Al Ops

Al development

5. Is the course refundable?

Yes, if you don't like the training within a week we can transfer you to new course to a new batch or Refund.

- 6. Payment Plan
- o Yes, we have a special plan to pay in 3 instalments for students. The total fee of £1299 which is payable in 3 instalments:
- ∑ £200 (Refundable) Deposit to enrol in the course
- $\ \square$  50% of balance After 2 weeks of the course
- $\square$  Rest of the payment After 6 weeks of the course

- 7. Can I do this course outside the UK?
- o Yes, we have students from different countries who are doing the course.
- 8. What is the fee for students outside the UK?
- o Depends upon the currency. Please contact us for more details via WhatsApp +44 7459 334316
- 9. Is it a live session or recorded session?
- o It's a live session which is recorded for future reference for the students.
- 10. What are the timings of the course?
- o Weekdays: Mon/Wed/Thu 11 AM 1 PM (OR) 6 PM 8 PM (6 hours per week)
- o Weekends: Sat and Sun 10 AM 1 PM or 2PM 5PM (6 hours per week)
- 11. What if I miss a session?
- o You can always go through the recording of the class you missed. If you have any doubts, you can connect with the trainer.
- 12. Is the course interactive?
- o Yes, it is a live class. During the class, the trainer will discuss some technical questions.
- 13. Who will be the trainer?
- o Trainers are all 10-15+ years experienced professionals working in multinational companies, who will help you with their real-time experience.
- 14. What if I join in the middle of the course?
- o Based on your profile, you can join in the middle of the course. Our trainer will take catch-up sessions to cover the topics that have been covered so far in the class.

15. What if I want to discontinue in the middle of the course? o We don't encourage discontinuation. However, in an emergency, please contact us. We will put you in a different batch and discuss individual circumstances.