

UiPath Automation Developer & Agentic Automation Associate Training (ADAv1 + AAAv1)

Course Description

This integrated course combines UiPath Automation Developer Associate (ADAv1) and UiPath Agentic Automation Associate (AAAv1) training, offering a complete learning pathway for automation professionals. It equips learners with foundational and practical skills to design, develop, and manage automation solutions using UiPath Studio and UiPath Studio Web, while also introducing AI-powered agentic automation. Participants gain hands-on expertise in variables, data manipulation, UI automation, control flows, error handling, orchestrator integration, version control, and project organization. Additionally, learners explore prompt engineering, context management, escalation, and Gen AI integration, preparing them for real-world enterprise automation and certifications in ADAv1 and AAAv1.

Audience Profile

- Aspiring Automation Developers
- Students and professionals entering the field of Robotic Process Automation (RPA)
- Business users and non-developers seeking to automate processes with low-code/AI tools
- Citizen Developers, Business Analysts, Solution Architects, and Automation Developers
- Professionals seeking UiPath certifications as a foundation for advanced automation and AI roles

Prerequisite

- No prior UiPath certification required
- Basic computer literacy recommended
- No programming or automation background needed

Course Objective

- Build and manage automation projects using UiPath Studio and Studio Web
- Manipulate data using variables, arguments, lists, dictionaries, and DataTables
- Automate UI, Excel, PDF, file, folder, and email processes

- Apply debugging, error handling, and synchronization techniques
 - Utilize UiPath Orchestrator for automation orchestration and management
 - Reuse assets and descriptors via Object Repository and Version Control integration
 - Design AI-powered intelligent agents with prompt engineering, context, and escalation
 - Evaluate and refine automation and agent performance using Generative AI tools
 - Prepare for UiPath Certified Professional Automation Developer Associate (ADAv1) and UiPath Agentic Automation Associate (AAAv1) certifications
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Module 1: Explore Automation Development with UiPath

1. Introduction to Automation and UiPath

- Understanding automation concepts and RPA
- Overview of UiPath platform and ecosystem
- UiPath Studio vs. Studio Web
- Introduction to UiPath certifications (ADAv1 & AAAv1)

2. Navigating UiPath Studio and Studio Web

- Studio interface: panels, activities, properties, and output
- Studio Web interface: workspace, activities, and project explorer
- Differences between Studio and Studio Web

3. Build Your First Automation Process and Agent

- Creating a new process in Studio
 - Publishing and running automation
 - Building your first agent in Studio Web
 - Running and testing simple automations
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Module 2: Data Handling in Automation

4. Variables, Constants, and Arguments in Studio

- Variable types and scope
- Constants and their use cases
- Arguments: In, Out, In/Out
- Passing data between workflows

5. Variables and Arguments in Studio Web

- Defining variables and arguments in Studio Web
- Data flow between workflows
- Using “Invoke Workflow File” in Studio Web

6. Data Manipulation Techniques

- String manipulations (split, replace, trim, regex)
- Lists and dictionaries for structured data
- DataTables: creating, reading, and writing data
- Advanced operations with DataTables

Module 3: Control Flow and Core Automation Skills

7. Control Flow in Studio and Studio Web

- Sequence, Flowchart, State Machine
- If, Switch, While, Do While, For Each
- Parallel and Parallel For Each
- Decision-making in workflows

8. Excel Automation with Studio (Modern Experience)

- Excel activities vs. Workbook activities
- Reading and writing Excel data
- Working with ranges, sheets, and DataTables
- Automating Excel without coding

9. User Interface Automation in Studio (Modern Design)

- Recording basics and advanced UI automation
- Input methods: Simulate, Send Window Messages, Default
- Screen scraping and data scraping
- Managing dynamic UI elements

10. User Interface Automation in Studio Web

- Automating web tasks
- Extracting web data (tables, text, structured data)
- Logging in, filling forms, and submitting data
- File handling in browser automation

11. UI Synchronization Techniques

- Delays, element exists, on element appear
- Wait activities for stability
- Ensuring reliable automations with synchronization

12. Selectors and Descriptors Deep Dive

- Understanding UiPath selectors
- Dynamic selectors and wildcards
- Anchor Base activities
- Studio Object Repository for reusable selectors

Module 4: Advanced Automation Scenarios

13. Debugging and Troubleshooting

- Debugging options in Studio and Studio Web
- Breakpoints, step into/step over
- Immediate panel and Locals panel

14. Error and Exception Handling

- Try Catch activities

- Throw and Rethrow
- Global exception handling
- Error logging and recovery

15. Working with Local Files and Folders

- File and folder operations (create, delete, move, copy)
- Reading and writing text files
- File I/O automation best practices

16. Email Automation

- Automating Outlook, IMAP, and SMTP
- Reading, sending, and filtering emails
- Extracting attachments

17. PDF Automation

- Reading PDFs with and without OCR
- Extracting structured data from PDFs
- Handling scanned PDF automation

18. Logging and Workflow Analyzer

- Adding logs for debugging and monitoring
- Using Workflow Analyzer for best practices
- Fixing code quality issues

19. RPA Testing and Project Organization

- Unit testing in UiPath
- Organizing projects into workflows and libraries
- Naming conventions and maintainability

Module 5: UiPath Orchestrator and Collaboration

20. Introduction to UiPath Orchestrator

- Overview of Orchestrator capabilities
- Attended vs. unattended automation

21. Working with Orchestrator Resources

- Managing Assets, Queues, and Resources
- Deploying and scheduling robots
- Monitoring jobs and logs

22. Version Control and Collaboration

- Integrating with Git
- Committing and pulling changes
- Collaborating in teams

23. Object Repository and Reusability

- Reusing UI descriptors
- Standardizing UI automation across projects

24. Integration Services

- Connecting UiPath to external applications
- API integrations for automation

Module 6: Agentic Automation with AI

25. Introduction to Agentic Automation

- What is Agentic Automation?
- Role of AI agents in enterprise automation

26. Building Your First Agent in Studio Web

- Step-by-step intelligent agent creation
- Assigning tasks to agents

27. Prompt Engineering for Agents

- Basics of crafting prompts

- Designing effective prompts for Gen AI activities
- Using prompts for data extraction and decision-making

28. Configuring Context and Escalations

- Passing context into agents
- Creating escalation rules and triggers
- Escalation use cases (manual intervention, error escalation)

29. Evaluating and Refining Agent Performance

- Configuring evaluation workflows
 - Using feedback loops to improve agent outcomes
 - Metrics for measuring agent efficiency
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Module 7: Automation Methodologies and Best Practices

30. UiPath Implementation Methodology

- Automation lifecycle: identify, build, test, deploy, monitor
- Best practices for scaling automation projects
- Governance and security

31. Ensuring Best Practices and Code Quality

- Workflow Analyzer rules
 - Documentation standards
 - Clean code and reusable components
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Module 8: Completion and Certification

32. Assessment and Feedback

- End-of-training assessment
- Hands-on project evaluation