AI Software Factory: Automate Specification-Driven Development

Training Program



Orchestrate agents and multiple projects with tests, human reviews and reversible releases.

This technical course helps developers organise an AI-assisted software factory around a real project. It connects versioned specifications, specialised agents, isolated execution and quality controls. The workshop targets a traceable cycle through a pull request and release candidate with human approval, without granting agents direct production access.

Objectives and target skills

- Organise an umbrella project and specialised projects around versioned specifications.
- Turn requests into traceable plans, tasks, code, tests and pull requests.
- Configure agents with bounded context, permissions and responsibilities.
- Execute tasks in isolated workspaces and check quality.
- Prepare a release candidate, delivery decision and rollback.

Audience	Prerequisites	Duration
✓ Practising developers, lead developers and architects; this course is exclusively for technical development professionals.	✓ Experience in development, Git, branches, pull requests and automated testing. ✓ A real project, its code, specifications and authorised repository access are mandatory. ✓ A computer with an active coding assistant and working builds and tests; Docker and an existing CI are recommended.	2 days, or 14 hours.

Training content

Day 1 - Map the project and rules

- Identify repositories, interfaces, dependencies, environments and an initial automation scope.
- Centralise vision, specifications, decisions, backlog and acceptance criteria in an umbrella project.

Organise specialised projects

- Define development, platform, UI, web, documentation or business projects and their contracts.
- Assign context, owners, dependencies and version cycles to each project.

Configure agents and specification-driven work

- Separate clarification, specification, implementation, QA and release with limited permissions.
- Connect every increment to scenarios, risks, tests and approvals.

Day 2 - Execute in isolated environments

- Create a branch, worktree or workspace per task without direct production access.
- Bound commands, network access, resources and retries; collect execution evidence.

Control quality and pull requests

- Run builds, tests, linting, dependency checks and security checks.
- Prepare a documented pull request and independent review before human approval to merge.

Release and govern

- Build a candidate artifact, check migrations and smoke tests, and prepare backups and rollback.
- Manage dependencies, budgets, errors and versions; plan an emergency stop and gradual permissions.

Workshop and deliverables

- An umbrella project, map, specifications, agent rules and permissions matrix.
- A first cycle through a pull request, CI evidence and a reversible delivery plan.

Access conditions

Before the course starts, an initial assessment questionnaire identifies the participant's professional activity, expectations, existing skills and technical environment. An additional discussion is arranged if needed to check that the course is suitable and prepare any necessary adjustments. Enrolment is normally arranged between two months and one week before the course starts, subject to available places, prerequisites and, where applicable, the funding body's processing times. Practical arrangements are provided in the joining instructions. Terms and conditions of sale: https://www.opcoach.com/cgv. The initial assessment checks the real project, reproducible builds and tests, repositories and available permissions.

Accessibility for people with disabilities

Participants with disability-related needs are invited to tell OPCoach before the course starts. OPCoach works with them to assess possible teaching, technical and organisational adjustments, including for the initial assessment and learning assessments. Specialist partners may be involved if needed. Disability contact: Chrystèle Lagarde. To be put in touch with her, contact OPCoach at olivier.prouvost@opcoach.ai or +33 6 28 07 65 64.

Training format

The course is trainer-led, on site or remotely, live via Zoom. Demonstrations, exercises and assessments take place during supervised training time.

Group size

Open-enrolment training: 2 to 8 participants. In-company / dedicated training: 1 to 6 participants, on site or remotely.

Fees

Open-enrolment training: **EUR 1,750 excluding VAT per participant**. A minimum of two enrolments is required. For two or more participants from the same company, the in-company rate applies.

In-company / dedicated training: **EUR 2,500 excluding VAT for two participants, +/− EUR 300 excluding VAT per participant added or removed**, for groups of 1 to 6 participants. Access to the tools required for the workshops must be arranged before the course. Subscriptions and third-party services are not included in the fee. The course can be paid for directly by the company or the participant. A funding application may be submitted to the company's French skills funding body (OPCO), subject to its eligibility rules and processing times. Any funding remains subject to the funding body's prior approval.

Schedule

Check the upcoming sessions and arrangements on OPCoach.ai. Availability is updated on this page. For a dedicated session, contact OPCoach.

Training location

Inter-company training takes place in our InterIndep premises at 2 impasse Michel Labrousse, 31100 Toulouse. The training room is accessible by public transport and by car, and has parking facilities. Several restaurants and a hotel are located nearby. A break area is available for cold and hot drinks during breaks. All these facilities are accessible to people with reduced mobility. In-company training is preferably delivered at the client's premises. Hosting conditions are validated before the training. Remote training is delivered with Zoom and can be organized as inter-company or in-company training.

Teaching approach

Alternating short lectures and individual hands-on exercises on a workstation. Sharing and discussion of the results obtained. Technical and teaching assistance is provided by Olivier Prouvost during the course: olivier.prouvost@opcoach.ai - +33 6 28 07 65 64.

Teaching resources

On site: training room with video projector, whiteboard, high-speed Wi-Fi and a training binder provided to the participant. Remote: high-speed internet access, webcam, free Zoom software, PDF course material sent to the participant. One workstation per participant. Digital course materials and exercise files are provided to participants. Connection details and instructions for accessing resources are included in the joining instructions. Participants keep the deliverables they produce during the workshops.

Trainer supervision

Olivier Prouvost, DEA in Computer Science, recognized open source expert and trainer for more than 20 years, developer of AI solutions to optimize SMEs, speaker at international conferences, Eclipse committer on several projects, founder of OPCoach, a Qualiopi-certified training organization since 2020, and ICPF & PSI certified expert trainer and consultant.

Learning assessment

Attendance is recorded through electronic sign-in, both on site and remotely. For remote training, the trainer also checks completion of activities and each participant's progress. Assessment criteria are presented at the start of the course. Participants demonstrate a cycle from a specification to a verified pull request. Criteria cover project consistency, permission separation, testing evidence, review quality, autonomy limits and rollback procedures.

Recognition

This vocational training course is non-certifying: it does not prepare participants for a certification registered in the French National Directory of Professional Certifications (RNCP) or Specific Register (RS). A statement of skills records the learning outcomes observed during assessments. A certificate of completion records actual participation.

Satisfaction assessment

At the end of the training, the participant completes a satisfaction survey and takes part in a group feedback session. The participant benefits from unlimited email support for practical questions related to the training. After 3 months, or after applying the training in the workplace, a follow-up questionnaire is completed to assess practical use.

Technical, teaching, administrative and financial contact

Olivier Prouvost, +33 6 28 07 65 64, olivier.prouvost@opcoach.ai