

# Cursor training

2 days (14 hours)

## Presentation

Our Cursor training course will teach you how to use this powerful AI-powered IDE to improve your code-writing productivity. Based on VSCode and featuring GenAI, Cursor integrates advanced features such as intelligent auto-completion, code generation and natural language explanation of code snippets.

The training course will familiarize you with fundamental Cursor concepts such as auto-completion and code generation. Cursor allows you to correct your code in real time as it is being written, greatly reducing the need for manual correction.

Our program will also cover Cursor AI's advanced features such as agent mode, which enables it to write code almost autonomously, and shell command generation. You'll also learn how to connect it to various LLMs.

This course will be run on the latest version of the tool: [Cursor 0.47](#)

## Objectives

- Install and configure Cursor for your development environment
- Use autocompletion and AI-assisted code generation to improve day-to-day productivity
- Master the use of different LLMs to exploit their full potential
- Improve code quality and automate tasks with Cursor
- Correct and secure your code in real time

## Target audience

- **Developers**
- Prompt engineer

## Prerequisites

- Knowledge of a programming language

## Technical requirements

- Having a [Cursor AI](#) account
- A terminal or command prompt to run your scripts

# CURSOR TRAINING PROGRAM

## Introduction to Cursor AI

- Cursor AI's philosophy and positioning in AI-assisted development
- Offer presentation: Hobby vs Pro vs Business
- Quick installation on Windows, Mac or Linux
- Presentation of the development interface
- Initial AI configuration and parameter customization
- Multi-language compatibility and management of different environments

## Intelligent autocompletion and code generation

- Multiline predictive code completion
- Anticipation of development stages and automatic structuring
- Accepting and adjusting suggestions
- Cursor prediction for faster navigation
- Practical exercise: write a small function to observe the proposed completions

## AI-assisted editing and refactoring

- On-demand code generation with natural language prompt
- Code modification and adaptation according to specific instructions
- Automated refactoring to improve code quality
- Wide editing range for global project modification
- Control and review of AI-generated results
- Practical exercise: Enhance an existing function to optimize readability and performance

## Context-sensitive chat support

- Use contextual natural language chat to interact with Cursor
- Project-wide search to quickly find relevant code
- Code reference with @ to target specific elements
- Quick question to solve a problem without leaving the IDE
- Instant application of AI-suggested answers
- Practical exercise: Using AI to solve a problem in a real-life project

## Advanced features and agent mode

- Agent mode: Yolo mode and automation of recurring tasks
- Generate Shell commands to automate workflows
- Integrated web search for contextual information
- Documentation integration: suggestions based on existing documentation
- Visual context: drag & drop and interactive buttons to optimize user experience

## Customization and integration with a repository

- Configuring .CursorRules to adapt Cursor to a specific project
- Optimized settings for personal or team use
- Automate recurring tasks based on the codebase used

## Comparing and integrating LLMs

- Performance comparison: GPT-4, Mistral, Claude and their optimal uses
- Overview of compatible LLMs and choosing the right model for your context
- Integration with APIs to personalize interactions with Cursor
- Modification of system instructions for fine-tuning results
- Use of mixed models to combine speed and precision
- LLM-assisted debugging for faster error identification

## Automation & Real-life use cases

- What tasks can Cursor automate?
- Optimization and maintenance of legacy code
- Code migration between versions or technologies
- Automatic creation and documentation of new files
- Assisted code review and refactoring
- Unit and functional test generation
- Practical exercise: Improving a project by applying different automation strategies

## Security & Privacy

- What data is sent to Cursor?
- How to avoid sensitive code leaks?
- Best practices for securing the use of AI in business
- Access and permissions management in a large enterprise
- Setting up in-house LLMs vs. hosted LLMs for data control

## Final project and advanced practice

- Frontend development: Creation of a dynamic page in React with interactions optimized by Cursor
- Backend development: Implementation of a REST API with error handling and automatically generated documentation
- Refactoring existing code: Reduce technical debt and project performance
- Best practices for working with AI in a development team
- Managing limits and bypassing Cursor restrictions
- Final exercise: Carrying out a personal project from start to finish using all Cursor functions

## Companies concerned

This course is aimed at both individuals and companies, large or small, wishing to train their teams in a new advanced computer technology, or to acquire specific business knowledge or modern methods.

## Positioning on entry to training

Positioning at the start of training complies with Qualiopi quality criteria. As soon as registration is finalized, the learner receives a self-assessment questionnaire which enables us to assess his or her estimated level on different types of technology, as well as his or her expectations and personal objectives with regard to the training to come, within the limits imposed by the selected format. This questionnaire also enables us to anticipate any connection or security difficulties within the company (intra-company or virtual classroom) which could be problematic for the follow-up and smooth running of the training session.

## Teaching methods

Practical course: 60% Practical, 40% Theory. Training material distributed in digital format to all participants.

## Organization

The course alternates theoretical input from the trainer, supported by examples, brainstorming sessions and group work.

## Validation

At the end of the session, a multiple-choice questionnaire verifies the correct acquisition of skills.

## Sanction

A certificate will be issued to each trainee who completes the course.

[Training Program Web page](#) - Appendix 1 - Training sheet

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