

Updated on 06/09/2026

Sign up

Cloudflare Workers Training

3 days (21 hours)

Overview

Cloudflare Workers is a serverless platform that allows you to develop, deploy, and scale applications directly on Cloudflare's global network. It enables you to create APIs, edge functions, middleware, asynchronous processing, and full-stack applications without managing server infrastructure.

Our Cloudflare Workers training will help you master the development of serverless edge applications using JavaScript, TypeScript, and the Wrangler CLI tool.

You'll learn how to create Workers, structure HTTP APIs, manage environments, configure bindings, handle secrets, and connect your functions to storage services like KV, D1, and R2.

By the end of the course, you'll be able to design high-performance serverless services, manage state with Durable Objects, create asynchronous processing with Queues, automate your deployments, and monitor your applications in production.

Like all our courses, this one will introduce you to **the latest stable version** of the technology and its new features.

Objectives

- Understand the architecture and use cases of Cloudflare Workers
- Create, test, and deploy Workers with Wrangler
- Develop serverless APIs with JavaScript or TypeScript
- Connect a Worker to KV, D1, R2, Durable Objects, and Queues
- Secure secrets, bindings, routes, and application access
- Automate deployment, monitor, and optimize Workers in production

Target Audience

- Backend, full-stack JavaScript, or TypeScript developers
- Web developers looking to build serverless APIs
- Application and cloud architects
- DevOps or cloud engineers working with application teams

Prerequisites

- Basic knowledge of JavaScript or TypeScript
- Understanding of HTTP APIs and web development
- Some experience with Git or a command line is recommended

Technical prerequisites

- A computer running Linux, macOS, or Windows with WSL2
- Install Node.js, npm, and a code editor such as Visual Studio Code
- Have a Cloudflare account for the deployment workshops
- Ensure a stable internet connection

Cloudflare Workers Training Program

[Day 1 - Morning]

Understanding Cloudflare Workers and serverless edge

- Understand the role of Cloudflare Workers in a serverless and edge computing architecture
- Identify use cases: APIs, middleware, webhooks, redirects, caching, routing, authentication, and full-stack applications
- Distinguish between traditional serverless architectures and the isolate-based model
- Understand the benefits: low latency, automatic scaling, global deployment, and no server management
- Explore the Workers ecosystem: Wrangler, bindings, KV, D1, R2, Durable Objects, Queues, and Cron Triggers
- Hands-on workshop: create your first Worker, run it locally, and deploy a simple function on Cloudflare

[Day 1 - Afternoon]

Local development with Wrangler and TypeScript

- Install and configure Wrangler, the official CLI tool for Cloudflare Workers
- Create a Worker project with JavaScript or TypeScript

- Understand the project structure: entrypoint, fetch handler, configuration, and environment variables
- Use the local development server, logs, and deployment commands
- Manage development, staging, and production environments
- Hands-on workshop: develop a TypeScript HTTP API with routes, parameters, JSON responses, and error handling

Routing, HTTP requests, and serverless APIs

- Working with Request and Response objects, headers, HTTP methods, and status codes
- Create routes to expose a lightweight and maintainable serverless API
- Manage URL parameters, query strings, JSON bodies, and simple validations
- Implementing consistent error handling for API calls
- Understand execution constraints related to the Workers runtime
- Structure a Worker to separate routes, services, types, and configuration

[Day 2 - Morning]

Storage with KV, D1, and R2

- Understand the various storage services integrated with Cloudflare Workers
- Using Workers KV to store fast-reading key-value data
- Create and query a D1 database for serverless SQL use cases
- Using R2 to store files, media, or application objects
- Choosing the right storage for your needs: cache, configuration, relational data, or files
- Hands-on workshop: Connect a Worker to KV and D1 to create a mini content management API

[Day 2 - Afternoon]

Bindings, secrets, and integration with external services

- Understand the role of bindings in connecting a Worker to Cloudflare resources
- Configuring environment variables, secrets, and settings by environment
- Calling external APIs from a Worker and handling network errors
- Implement a clean configuration strategy for team projects
- Securing API keys, tokens, and application secrets
- Hands-on workshop: Integrating an external API and securing its key with Wrangler secrets

Durable Objects, Shared State, and Coordination

- Understanding the Limitations of a Stateless Worker and the Uses of Durable Objects
- Create a Durable Object to manage coordinated state or real-time logic
- Identify use cases: sessions, counters, locking, coordination, rooms, and interactive workflows
- Understand the persistence, addressing, and consistency of a Durable Object
- Evaluate the choices between KV, D1, R2, and Durable Objects based on business needs

- Hands-on workshop: Create a counter or session manager with Durable Objects

[Day 3 - Morning]

Queues, asynchronous tasks, and automation

- Understanding how to use Cloudflare Queues to decouple application processing
- Create a message producer and consumer in Workers
- Handling asynchronous processing, retries, errors, and failed messages
- Use Cron Triggers to schedule recurring tasks
- Identify patterns: webhooks, deferred processing, synchronization, notifications, and periodic jobs
- Hands-on workshop: create an asynchronous workflow with a producer Worker, a Queue, and a consumer

[Day 3 - Afternoon]

Deployment, CI/CD, and observability

- Deploying a Worker with Wrangler and managing environments
- Understanding versions, rollbacks, staged deployments, and release best practices
- Integrating Cloudflare Workers into a CI/CD pipeline with GitHub Actions or GitLab CI
- Leveraging Cloudflare logs, metrics, traces, and observability tools
- Diagnosing production errors, runtime limits, latency, and configuration issues
- Hands-on workshop: Automate Worker deployment and analyze logs after execution

Security, performance, and production architecture

- Apply security best practices: secrets, headers, CORS, input validation, and abuse prevention
- Implement caching, routing, rate limiting, and application protection strategies
- Optimize performance: latency, CPU time, external calls, storage, and binding architecture
- Understand costs, quotas, limits, and architecture choices at scale
- Design a serverless edge architecture tailored to a business use case
- Hands-on workshop: finalize a secure, observable, and production-ready serverless API

Target Audience

This training is intended for both individuals and companies, large or small, seeking to train their teams in a new advanced IT technology or to acquire specific business knowledge or modern methodologies.

Assessment upon enrollment

The pre-training assessment complies with Qualiopi quality standards. Upon final registration, the learner receives a self-assessment questionnaire that allows us to evaluate their estimated proficiency in various types of technologies, as well as their expectations and personal goals for the upcoming training, within the limits imposed by the selected format. This questionnaire also allows us to anticipate certain connection or internal security issues within the company (intra-company or virtual classroom) that could pose challenges for monitoring and ensuring the smooth running of the training session.

Teaching Methods

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

Organization

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

Assessment

At the end of the session, a multiple-choice questionnaire is used to verify that the skills have been properly acquired.

Certification

A certificate will be issued to each trainee who has completed the entire training program.