OPENCLASSROOMS

Application Developer

Develop software solutions that meet user needs by applying the principles and techniques of computer science.

Real-world Projects

Prerequisites
High school diploma or equivalent

Apprenticeship Training Duration
400 hours
Bootcamp Training Duration
110 hours

Assigned Mentor

Certificate of Completion of Apprenticeship

Table of Contents

OpenClassrooms pedagogy and experience: the keys to your success

100% Online

Your online training is accessible from anywhere, anytime

Learn by doing

Put your knowledge into practice by using your new skills on real-world projects

A mentor to support you

Benefit from the support and advice of an expert in the field throughout your training to help you progress.

Gain the skills you need for future-proof tech jobs with an earn and learn program

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1
Salary and training financed by a forward-thinking company, what can be better?

Earn and learn means zero cost and debt to you because it is all financed by a company. Receive a salary while you are training!

2
A flexible apprenticeship program: practical for you and your business.

Your contract can start at any time of the year. The program is flexible allowing for 3 or 4 days of on-the-job training with online training days that can be adapted.

3
Training that reflects the realities of your chosen profession.
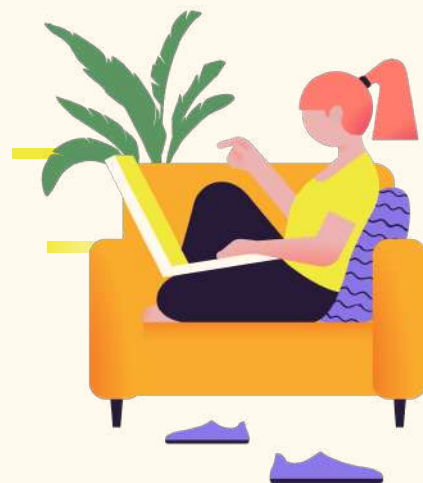
This program is registered with the U.S. Department of Labor, Office of Apprenticeship.

4
Online, but always supported.

Because training is never easy, you are supported by a mentor, who helps you progress. Our team of educational advisers is also there to support you at every stage of your journey.

Pursue a career as an Application Developer

Analyze user needs and create software solutions by leveraging the principles and techniques of computer science.
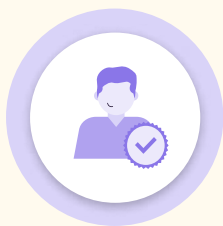
Intended for

Individuals interested in pursuing a career in software development or those who want to enhance their existing programming skills with a focus on building applications.

Duration

Full-time
400h
12 month apprenticeship
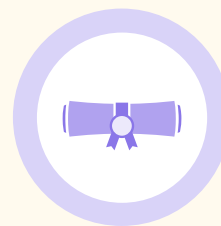
Credential

Certificate of Completion of Apprenticeship

Granted by the Office of Apprenticeship or the State Apprenticeship Agency.

Target skills:

- Interpret the client's needs and create a prototype.
- Apply the fundamentals of programming in Python.
- Manage data using ETL (extract, transform, load).
- Use object-oriented programming to develop a Python program.

PREREQUISITES FOR APPRENTICESHIP ADMISSION

- High school diploma or equivalent.
- Must be over 18 years of age or older and have the right to work in the U.S.
- Fundamentals of computer literacy (high school level), basic experience or knowledge in IT, including: basics of computer hardware, basics of HTML/CSS, Python fundamentals (IDE, Git, ETL, OOP, MVC, basic algorithms).

Tools, technologies and methodologies

OpenClassrooms apprenticeship programs: a win/win solution

Diversify and create a sustainable talent pipeline to fill your digital skills gaps. Start apprentices in an optional 3-month pre-apprenticeship Skills Bootcamp to ensure they are prepared with the necessary skills needed for their 12-month apprenticeship.

Skills Bootcamp

12 weeks

Apprenticeship onboarding

On-the-job

4 days a week

Off-the-job

1 day a week

DOL RAPs credential
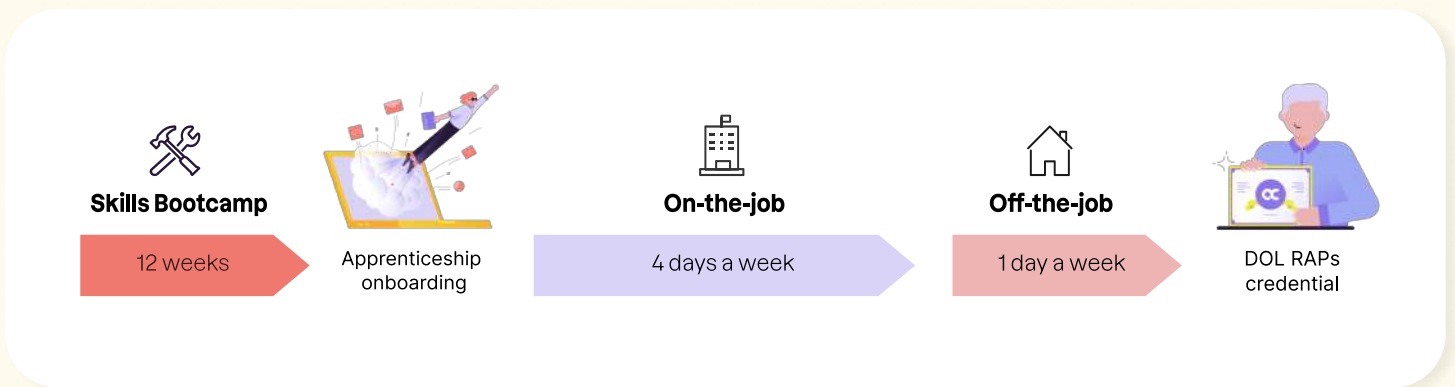
Learn at the right pace

For four days per week the apprentice will be working on-the-job at your company and one day per week taking online project-based training with OpenClassrooms. You will both be supported by OpenClassrooms Success teams every step of the way.

1 day

4 days
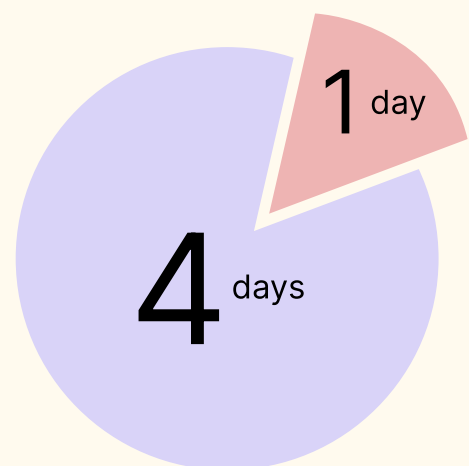
In your company. On-the-job

- Onboard apprentices whenever you want
- The apprentice works on company assignments
- You provide guidance to the apprentice

At OpenClassrooms. Off-the-job

- The apprentice learns the core skills required for the job
- Project-based learning that is 100% online
- The apprentice gets one-on-one sessions with a mentor

Skills Bootcamp

3 month pre-apprenticeship training 200h

Pre-apprenticeship programs benefit both apprentices and employers by ensuring apprentices are prepared for on-the-job training from day one. The bootcamp consists of 3 - 4 projects, focused on core skills.

Skills Bootcamp

PROJECT 1 ~ 25h

Install and Configure the Ideal Workstation for a Developer

Identify specifications and requirements to install a customized PC for a developer's workstation.

TARGET SKILLS

- Train users to use new or modified equipment
- Set up a workstation that meets the user's needs

EXPECTED DELIVERABLES

- Workstation specifications document
- Software checklist

RECOMMENDED COURSES

- Course #1 - Learn How to Learn
- Course #2 - Assemble a Computer
- Course #3 - Think Like a Computer: The Logic of Programming
- Course #4 - Set Up your PC Using Windows 10

PROJECT 2 ~ 40h

Use Python Basics for Market Analysis

Track the competitor's of an online bookshop by using Python to build a monitoring system that tracks their pricing information.

TARGET SKILLS

- Determine data processing capabilities
- Set up a Python environment
- Use version control with Git and GitHub
- Store, retrieve, and manipulate data for use in an application

EXPECTED DELIVERABLES

- TXT file containing the link to the public repository on GitHub
- ZIP file containing all extracted data and associated images
- Email about how your program can establish an ETL pipeline

TOOLS, TECHNOLOGIES, AND METHODOLOGIES

Terminal

CSV

RECOMMENDED COURSES

- Course #1 - Learn Python Basics
- Course #2 - Set Up a Python Environment

Skills Bootcamp

PROJECT 3

~ 35h

Develop a Software Program Using Python

Using your knowledge of Python, help the local chess club manage their events by writing a program for them.

TARGET SKILLS

- Design, develop, and modify software systems

- Prepare reports concerning projects specifications or status

- Develop the back-end of an application

EXPECTED DELIVERABLES

- TXT file with link to publicly accessible GitHub to include:

- Application code

- Directory containing an HTML file

- README.md with instructions

- Email describing how the program meets specifications

TOOLS, TECHNOLOGIES, AND METHODOLOGIES

PEP 8 style guide

SOLID design principles

RECOMMENDED COURSES

- Course #1 - Learn Programming with Python
- Course #2 - Write Maintainable Python Code

Training Path

12 month apprenticeship program

Our apprenticeship programs combine hands-on training with 100% online learning. The apprenticeship program consists of 6 - 8 projects, focused on acquiring core skills that can be applied on-the-job.

Training Projects

PROJECT 1   ~ 10h

Dive into your Application Developer Apprenticeship

Discover what you'll be learning during your apprenticeship and get to know your mentor. Define your learning goals in this initial project.

TARGET SKILLS

- Define your training framework

EXPECTED DELIVERABLES

- Training schedule

RECOMMENDED COURSES

- Course #1 - Develop your Soft Skills
- Course #2 - Learn How to Learn

PROJECT 2   ~ 25h

Design a Python Application Tailored to a Client's Needs

An online mentoring service, a new client for your agency, would like to develop an application using Python. Interpret your client's needs and create a prototype.

TARGET SKILLS

- Analyze information to determine, recommend, and plan a system

- Consult with stakeholders on project status, proposals, or issues

- Analyze user needs and software requirements for design feasibility

EXPECTED DELIVERABLES

- User stories with acceptance criteria

- PDF file containing functional wireframes of the stie

TOOLS, TECHNOLOGIES, AND METHODOLOGIES

Wireframes

Agile methodology

User stories & acceptance tests

Design principles

RECOMMENDED COURSES

- Course #1 - Write Agile Documentation: User Stories and Acceptance Tests
- Course #2 - Create Simple Prototypes with Wireframes

- Course #3 - Improve your Presentation Skills

Training Projects

PROJECT 3

~ 40h

Use Python Basics for a Data Application in your Company

Identify a project within your company that uses online data. Use Python and Git to build an ETL pipeline that the project can use for its data needs.

TARGET SKILLS

- Determine data processing capabilities

- Store, retrieve, and manipulate data for use in an application

- Work with programmers, scientific, and engineering teams to develop software

EXPECTED DELIVERABLES

- Written consent from workplace advisor for topic choice

- TXT file with a link to shared GitHub repository

- ZIP file with cleaned and prepared data and a requirements document

- Email describing how ETL pipeline can manage the required data

TOOLS, TECHNOLOGIES, AND METHODOLOGIES

ETL

PyCharm

RECOMMENDED COURSES

- Course #1 - Learn Programming with Python
- Course #2 - Use Python Libraries for Data Science

PROJECT 4

~ 30h

Develop a Web Application Using Django

Use the Django framework to make a digital product a reality as the lead Python developer at a new startup!

TARGET SKILLS

- Develop the user interface of an application

- Analyze data to determine application specifications

- Write documentation for software technical requirements

EXPECTED DELIVERABLES

- TXT file containing link to GitHub repository (or equivalent)

- Django project

- Set of instructions detailing environmental setup of app

- Application code

- UI matching the wireframe design

TOOLS, TECHNOLOGIES, AND METHODOLOGIES

django   UI code

Databases

Documentation

RECOMMENDED COURSES

- Course #1 - Create a Web Application with Django
- Course #2 - Write the Technical Documentation for your Project

- Course #3 - Develop your Creativity

Training Projects

PROJECT 5

~ 25h

Install and Configure a Workstation for a New Developer in your Company

Help a new developer joining your company by installing their workstation. Ensure the workstation is in working order and customize software and browser settings for their new colleague.

TARGET SKILLS

- Specify requirements and configuration for power/memory
- Recommend equipment in system installation area
- Train users to use new or modified equipment
- Coordinate installation of software systems

EXPECTED DELIVERABLES

- Screenshots of relevant hardware and configuration of workstation
- Software is installed, configured, and works correctly
- Email with description of how workstation meets user's needs
- Instructions to user on how to use their workstation optimally

TOOLS, TECHNOLOGIES, AND METHODOLOGIES

Search engine

LibreOffice
The Document Foundation

Browser extensions

RECOMMENDED COURSES

- Course #1 - Assemble a Computer
- Course #2 - Set Up your PC Using Windows 10
- Course #3 - Develop a Service-Minded Attitude

PROJECT 6

~ 35h

Develop a Software Program for your Company Using Python

Build a Python application that your team or company needs, using OOP, an appropriate design pattern, and algorithms.

TARGET SKILLS

- Develop the back-end of an application using OOP principles
- Prepare reports on project specifications, activities, or status
- Design, develop, and modify software systems

EXPECTED DELIVERABLES

- TXT file containing link to GitHub repository
- Complete application code
- README.md with user-oriented instructions on program use
- File with UI design details
- Report on how code meets technical specifications

TOOLS, TECHNOLOGIES, AND METHODOLOGIES

OOP   Algorithms

Design patterns

Python best practices

RECOMMENDED COURSES

- Course #1 - Write Maintainable Python Code
- Course #2 - Develop your Critical Thinking

Training Projects

PROJECT 7

~ 35h

Enhance a Python Web Application with Testing and Debugging

Improve an existing Flask application, a new responsiblity as a software developer. Fix errors and add functionalities using test-driven development.

TARGET SKILLS

- Develop software performance standards

- Develop software system testing or validation procedures

- Modify existing software to correct errors, improve performance

EXPECTED DELIVERABLES

- TXT file containing link to GitHub repository (or equivalent)

- Structure: separate branches for each fix and feature, Q&A branch

- Content: code with all the bugs and feature requests

- Screenshots of the test summary report

TOOLS, TECHNOLOGIES, AND METHODOLOGIES

Testing   REST APIs

Debugging

Refactoring

RECOMMENDED COURSES

- Course #1 - Debug your Python Project
- Course #2 - Test your Python Project

- Course #3 - Stay Up to Date wth Innovations in your Field

Clear steps to guide you towards your future career.

1 Study guidance

Selecting the best option for your future is never easy, but our team is here to guide you through your training options and advise you on financing options by e-mail, telephone or via webinars.

2 Start date

Together we ensure that you meet the prerequisites, register, and identify apprenticeship employer options. Or if you are in the Talent Marketplace, an employer may reach out to you directly.

3 Your onboarding

As soon as you are matched with an employer, you take part in an onboarding webinar to familiarize yourself with our training. Learn about the program, schedule, and stay for Q&A: you will be able to start your educational journey with complete peace of mind.

4 Skills acquisition

No more grades: you are assessed through the acquisition of skills and the completion of professional projects, which will allow you to build a portfolio, in cooperation with your mentor, our educational team and our online resources.

5 Jury and certificate

Your portfolio is evaluated by a jury of experts responsible for validating the acquisition of the skills necessary to receive a Certificate of Completion of Apprenticeship.

6 Career

With your certificate of completion in hand, you are ready to start working, at a company or on your own. You're ready to begin!

They trust us

Capgemini

amazon | career choice

ENEDIS
L'ELECTRICITE EN RESEAU

AXA

salesforce

pwc

MERCK

dentsu

HAVAS GROUP

High-quality training

Our training and our courses are designed especially for you, by our team of recognized experts and professionals.

Skills sought by companies

Our job? To identify the skills and jobs most sought after by employers, so that your training has a real impact, today and tomorrow. We're here for you, all the way. (And even beyond.)

Field experts

Your courses and projects are built in collaboration with recognized professionals in their field, so that your training is as close as possible to the reality of the profession. Start off on the right foot with project-based learning.

Our production studio

We produce all training content in our own production studio to have 100% control over the content and quality.

Autonomous doesn't mean you're alone. We provide support every step of the way.

A passionate mentor

Starting something new (and doing it successfully) is never easy. Especially when you're on your own. Fortunately, at OpenClassrooms we are passionate and we want you to succeed as much as you do. You are accompanied by an expert throughout your course, who will help you progress and reach your goals.

"I help the students on technical aspects. But it goes beyond that: I motivate them, give them self-confidence, provide them with soft skills for their future career."

PATRICK, OpenClassrooms mentor

PEDAGOGICAL ADVISORS

Obstacles and difficulties happen. Our team of educational advisors are here to help you overcome them by supporting you and ensuring you finish your training on time.

A VIBRANT COMMUNITY

While we provide guidance throughout your training, we also provide you the opportunity to engage with the global OpenClassrooms community on our social network. You're never alone, and you're always connected.

A PERSONAL CAREER COACH

Although you are independently studying, you are never alone. From the start of your training program, you can contact learners and mentors on the OpenClassrooms social network.

Feedback from our students.

Our greatest reward is the impact we have had on the careers of thousands of people since our creation, and we don't intend to stop there.

"For me, doing an earn and learn apprenticeship program was important, because it got me back on track. After six years on my own, it helped me get back into the rhythm of a job, to relearn the relationship with a boss, and it was necessary for me"

STEPHANIE, apprenticeship, payroll manager

"The apprenticeship program is really very professionalizing. I do both strategy, creation, writing... and in my work, I manage a community and I host webinars on a daily basis"

VICTORIA, apprenticeship, marketing strategy expert

We are a B-corp certified mission-driven company

OpenClassrooms has a dedicated team working to make education accessible.This mission is the heart of our organization and serves as our guide. That is why we have received B Corp certification. A prestigious certification that recognizes businesses that meet a high standard of social and environmental standards.

Ready to start your career?

Our team is ready to advise you on finding the perfect training program for you!

Contact us

OPENCLASSROOMS