

Updated on 16/05/2023

Sign up

## Flask training

3 days (21 hours)

### Presentation

Flask was originally conceived and developed as an April Fool's joke in 2010. Despite its origins as a joke, the Flask framework has become very popular as an alternative to Django projects with their monolithic structure and dependencies.

Flask's success created a lot of extra work in issuing tickets and raffle requests. This was followed by the creation of The Pallets Projects collection of open source libraries after managing Flask under its own GitHub account for several years. The Pallets Project now serves as a community organization that manages Flask and other related Python libraries such as Lektor, Jinja and several others.

In recent years, Python has become one of the most popular programming languages among developers, thanks to its simplicity and clarity. It is used to build web applications, desktop applications, but also in fields such as machine learning, data science...

Flask is a simple, easy-to-use Python micro-framework for building scalable web applications. Flask depends on the [Werkzeug](#) WSGI toolkit (don't try to pronounce it) and the [Jinja](#) template engine. It has become one of the most popular Python web application frameworks.

Flask offers suggestions, but does not impose any dependencies or project layouts. It's up to the developer to choose which tools and libraries to use. There are many community-supplied extensions that make it easy to add new features.

Flask is also easy to use for beginners, as there is little standard code to set up a simple, operational application. We'll be teaching you the latest version, [Flask 1.1.2](#).

### Objectives

- Creating a web server with Flask
- Using Flask's Jinja2 template engine
- How to create web applications based on Python Flask.
- Add simple CSS styles to your application with flask-bootstrap
- How to create and use HTML forms with your Flask application

## Target audience

Web Developer

## Prerequisites

- knowledge of Python
- knowledge of HTML and CSS

## Further information

## Flask training program

### Introduction

- What is Flask?
- Installing Python
- Installing Flask

### The models

- What is a model?
- Terms and conditions
- Loops
- Variable models
- Control Flow
- Inheritance model

### Web form

- Flask-WTF
- Configuration
- User login form
- Sample form
- Form views
- Receipt of form data

- Improving validation in the environment
- Link generation

## The database

- The Flask database
- Database migrations
- Configuring Flask-SQLAlchemy
- Database templates
- Creating the migration repository
- The first database migration
- Database upgrade and Workflow downgrade
- Relationships with the database
- Play Time
- Shell background

## Error management

- Error handling in Flask
- Debugging mode
- Customize error pages
- Send errors by Email
- Connect to a file
- Correct duplicate Username

## The Facelift

- CSS Frameworks
- Introduction to Bootstrap
- Using Flask-Bootstrap
- Bootstrap shape rendering
- Rendering blog posts
- Rendering pagination links

## I18n and L10n

- Introduction to Flask-Babel
- Marking texts to be translated in Python source code
- Marking texts to be translated in the model
- Extraction of the text to be translated
- Generate catalog language
- Upgrade translator
- Translate dates and times
- Command-Line

## Deployment

- Linux deployment
- Deployment on Heroku
- Deployment on Docker containers

## Application Programming Interface (API)

- REST as the foundation of API Design
- CRUD REST
- Authorization with Flask-JWT
- Blueprint API implementation
- Representation of users as JSON
- Representation of the user collection
- API authentication
- API error message

## Payment with Stripe

- Flask with Stripe to pay
- Setting up a checkout with Stripe

Bootstrap training

HTML, CSS and JS training

Electronjs training

## Companies concerned

This course is aimed at companies, large or small, wishing to train their teams in a new, advanced computer technology.

## 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, with brainstorming sessions and group work.

## Validation

At the end of the session, a multiple-choice questionnaire is used to check correct acquisition.

skills.

## Sanction

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