Updated 06/14/2024

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.

The success of Flask 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
- Translating dates and times
- Command-Line

Deployment

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

Application Programming Interface (API)

- REST as the foundation of PI 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 training 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 of proficiency in different types of technology, as well as his or her expectations and personal objectives for 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, with 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.