

Updated on 06/11/2025

Register

# Streamlit Training: Interactive Web Application Creator

2 days (14 hours)

## Overview

Looking for a quick way to create and share data applications? Our Streamlit training is just what you need! This AI framework transforms data scripts into easily shareable web applications, all in Python.

We will introduce you to the world of Streamlit, where you will discover fundamental concepts such as data flows, display and style data, and themes.

You will also learn how to deploy and manage applications using popular tools such as Docker.

Using Python, you will be able to run the tool, which can be used to build graphs, widgets, text, tables, and much more.

As with all our training courses, this one will be presented using the latest version of the tool: [Streamlit 1.51](#).

## Objectives

- Understand the basics of Streamlit
- Know how to use and customize components
- Master data visualization
- Know how to deploy Streamlit applications

## Target audience

- Data scientists
- Developers
- Engineers
- Data Analysts

## PREREQUISITES

- Knowledge of Python

## OUR STREAMLIT TRAINING PROGRAM

### INTRODUCTION

- What is Streamlit?
- Installing Streamlit and configuring it in a virtual environment
- First Streamlit application: Hello World!
- Exploring the Streamlit user interface
- Managing dependencies

### DATA VISUALIZATION

- Using `st.pyplot` to integrate Matplotlib graphs
- Creating interactive charts with Altair and Plotly
- Implementing bar charts and area charts
- Practical tips for data visualization
- Managing user input to filter and customize visualizations

### COMPONENTS AND CUSTOMIZATION

- Streamlit components and their use
- Integrating HTML content and IFrames
- Customizing themes
- Creating multi-page applications
- Interacting with widgets and storing session states

### PRACTICAL PROJECT - NLP APPLICATIONS WITH STREAMLIT

- Structure of a Streamlit application for natural language processing (NLP)
- Implementation of a text summarization process and evaluation with Rouge

- Adding and customizing visualizations for NLP results
- Streamlit code refactoring and modularization techniques
- Error handling and insufficient data management in NLP applications

## DATA ANALYSIS APPLICATIONS

- Adding result download functionality
- Extracting metadata from multimedia files
- Building an analytics and tracking section for the application
- Static code analysis and performance improvement for the Streamlit app
- Implementation of advanced features such as drag-and-drop

## APPLICATION DEPLOYMENT AND MANAGEMENT

- Deployment of Streamlit applications with Docker and Heroku
- Using and navigating the Streamlit sharing dashboard
- Management of Streamlit applications with PM2 for better performance
- Application load testing and performance monitoring
- Strategies for updating and maintaining Streamlit applications

## Target companies

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

## Placement at the start of training

The positioning at the start of the training complies with Qualiopi quality criteria. Upon final registration, the learner receives a self-assessment questionnaire that allows us to assess their estimated level of proficiency in different types of technologies, as well as their expectations and personal objectives 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 be problematic for the monitoring and smooth running of the training session.

## Teaching methods

Practical training: 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 discussion sessions, and group work.

## Assessment

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

## Certification

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