

Tutorial of Deployment of Web App by Python and Streamlit for Data Scientist

Streamlit is an open-source Python library that makes it easy to create and share beautiful and interactive web apps for data science and machine learning projects. It's designed to be simple to use, even for those with no prior web development experience.

In this tutorial, we'll walk you through the process of deploying a web app using Python and Streamlit. We'll cover everything from setting up the development environment to deploying the app to a live server.

Prerequisites

Before you begin, you'll need to have the following installed:



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★★★★★ 5 out of 5

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|----------------------|------------------------------|
| Language | : English |
| File size | : 2861 KB |
| Text-to-Speech | : Enabled |
| Screen Reader | : Supported |
| Enhanced typesetting | : Enabled |
| Print length | : 109 pages |
| Lending | : Enabled |
| Paperback | : 46 pages |
| Item Weight | : 6.2 ounces |
| Dimensions | : 8.27 x 0.12 x 11.69 inches |



- Python 3.6 or later
- Streamlit
- A text editor or IDE
- A web hosting provider (optional)

Setting Up the Development Environment

1. Create a new Python project directory.
2. Open a terminal window and navigate to the project directory.
3. Install Streamlit using pip:

```
pip install streamlit
```

4. Create a new Python file in the project directory and save it as `app.py`.
5. Open `app.py` in your text editor or IDE.

Building the Web App

Now that the development environment is set up, we can start building the web app.

In the `app.py` file, add the following code:

```
python import streamlit as st
```

Set the title and subtitle of the app

```
st.title("My Web App") st.subtitle("This is a simple web app created using Python and Streamlit.")
```

Create a sidebar for user input

```
sidebar = st.sidebar sidebar.header("User Input") name = sidebar.text_input("Enter your name:") age = sidebar.number_input("Enter your age:")
```

Create a main content area

```
main_content = st.container()
```

Display the user input in the main content area

```
main_content.write("Your name is:", name) main_content.write("Your age is:", age)
```

This code creates a simple web app that displays a title, subtitle, and sidebar for user input. The user can enter their name and age in the sidebar, and the app will display the input in the main content area.

Running the Web App

To run the web app, open a terminal window and navigate to the project directory. Then, run the following command:

```
streamlit run app.py
```

This will start the Streamlit app on your local machine. You can now visit `http://localhost:8501/` in your browser to view the app.

Deploying the Web App

Once you're happy with the web app, you can deploy it to a live server so that others can access it.

There are many different ways to deploy a Streamlit app. One popular option is to use a cloud platform like Heroku or AWS.

To deploy the app to Heroku, you'll need to create a Heroku account and install the Heroku CLI.

Once you have Heroku installed, you can create a new Heroku app by running the following command:

```
heroku create my-app
```

This will create a new Heroku app called `my-app` .

Next, you'll need to add the Streamlit app to your Heroku app. You can do this by running the following command:

```
git push heroku master
```

This will push the code for your Streamlit app to your Heroku app.

Once the code is pushed to Heroku, you can deploy the app by running the following command:

```
heroku ps:scale web=1
```

This will start the Streamlit app on Heroku. You can now visit the a



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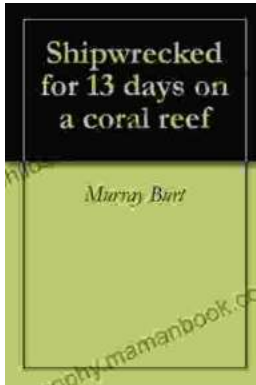
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