# 101: Desktop Developer Kit

So, lets’ starting building your \*\*People Data Information System\*\* with \*\*Streamlit Advanced Project Template\*\* together.

Before diving in, it's essential to ensure you have your minimal developer kit in place. Here's what you need to do:

- Begin by installing Anaconda, a Python software package manager.

- Next, install Visual Studio Code, a code editing software.

That's all it takes! For further details, please refer to the information below:

## Minimal tech stack

There are some general assumptions to bear in mind. This tutorial and the provided template are based on my experience with Windows desktop. Different operating systems may necessitate different steps. Additionally, all the software utilized and provided is open-source, meaning there are no licensing costs involved. Furthermore, there are various other ways and tools available to set up your minimal developer kit that you can explore. With that said, I personally recommend the following:

### Anaconda

Anaconda serves as a distribution management system for Python (and R) programming languages. Simply go online, download it, and proceed with the installation. Create a new environment (known as a 'conda' environment) and opt for the installation of Python 3.11 (the latest version available). From now on, you can install your Python software packages using either the Anaconda desktop application or, more conveniently, via a command-line terminal. It's worth noting that Streamlit also supports Python 3.12, but I have yet to transition to it with my template and tutorial.

### Visual Studio Code

Visual Studio Code, often abbreviated as VS Code, is a feature-rich code editor supporting various functionalities such as debugging, syntax highlighting, intelligent code completion, snippets, code refactoring, and embedded version control with Git, among others. To get started, head online and install it. Since you've already installed Python with Anaconda, there's no need to install it again with the editor. However, during the installation process, you may want to select the "Add path" option, which ensures that the default terminal knows about python packages downloaded later on.

## Best Practices (a.k.a. Lessons Learned)

- Avoid upgrading your software stack unless it's necessary or you intentionally wish to do so.

- Refrain from experimenting with alternative options until you have a solid understanding of the chosen approach.

## Resources

- <https://anaconda.org/>

- https://code.visualstudio.com/

# Streamlit Advanced Project Template

\*\*People Data Information System\*\* + \*\*Streamlit Advanced Project Template\*\* = :hearts::hearts::hearts:

Recently I delved into learning how to build and deploy a simple full-stack web data application. To my surprise, the process wasn't quite as simple as online tutorials and influencers like to claim😃.

Despite the challenges, the positive reactions from others and my continual note-taking effort inspired me to compile a practical curriculum.

Stay tuned! I'll soon be releasing it as an open-source Streamlit template codebase, accompanied by a step-by-step online tutorial.

Feel free to take it apart, enhance it, and surpass my efforts 💪. I'll be delighted if it aids you in advancing your projects or acquiring useful knowledge.

## Focus

My primary goal with this initiative is to deliver step-by-step a performing and reliable application-independent codebase, incorporating essential custom components, all under the umbrella of what I'm calling the \*\*Streamlit Advanced Project Template\*\*.

Additionally, I aim to pass on general principles of data modelling and programming, which I recommend adopting early on. To complement this, I plan to include a mix of best practices for general project setup and configuration based on my experiences and research.

To set expectations, I won't delve much into component APIs or other well-documented technical topics. Similarly, while I won't talk about every background detail, I'll provide pointers for further independent research allowing you to modifying an existing template codebase without to much struggle :thumbsup:.

## Application

* 1. The code template and tutorial is going to be communicated around an imaginary \*\*People Data Information System\*\*. In short, about a system that allows users in different roles to share information and make decisions. Understand it as a demo topic that is comprehensive for board group of people while the application specifics will be irrelevant for the codebase template and tutorial itself.

## Audience

This tutorial is designed for individuals with a background in data analysis and interest in management, possessing basic programming skills but are new to Python and web development practices. Streamlit Advanced Project Template is tailored for those eager to prototype ideas or create simple, yet solid, data-orientend web application for sharing with others.

## Resources

- https://streamlit.io/

- https://www.python.org/

- https://code.visualstudio.com/

Comment any specific topics you like me to consider and follow for updates to come!