Installing Python: macOS

This lesson is a tutorial on how to install Python on macOS.

macOS comes equipped with Python 2.7, but since we need the latest version of Python, we'll need to go through a few installation steps.

Below, we've listed the different ways to set up Python3 on macOS. You may skip this tutorial if it is not relevant to you.

1. Using the Terminal

This is for users who are well-versed with the macOS **terminal**. Through the terminal, we can safely install the latest version of Python3, but first, we need to get some required packages.

Installing XCode

Xcode is macOS's official Integrated Development Environment. We'll need this for Python. Some machines may already have XCode. For those who don't, visit the XCode app store page and download it from there.
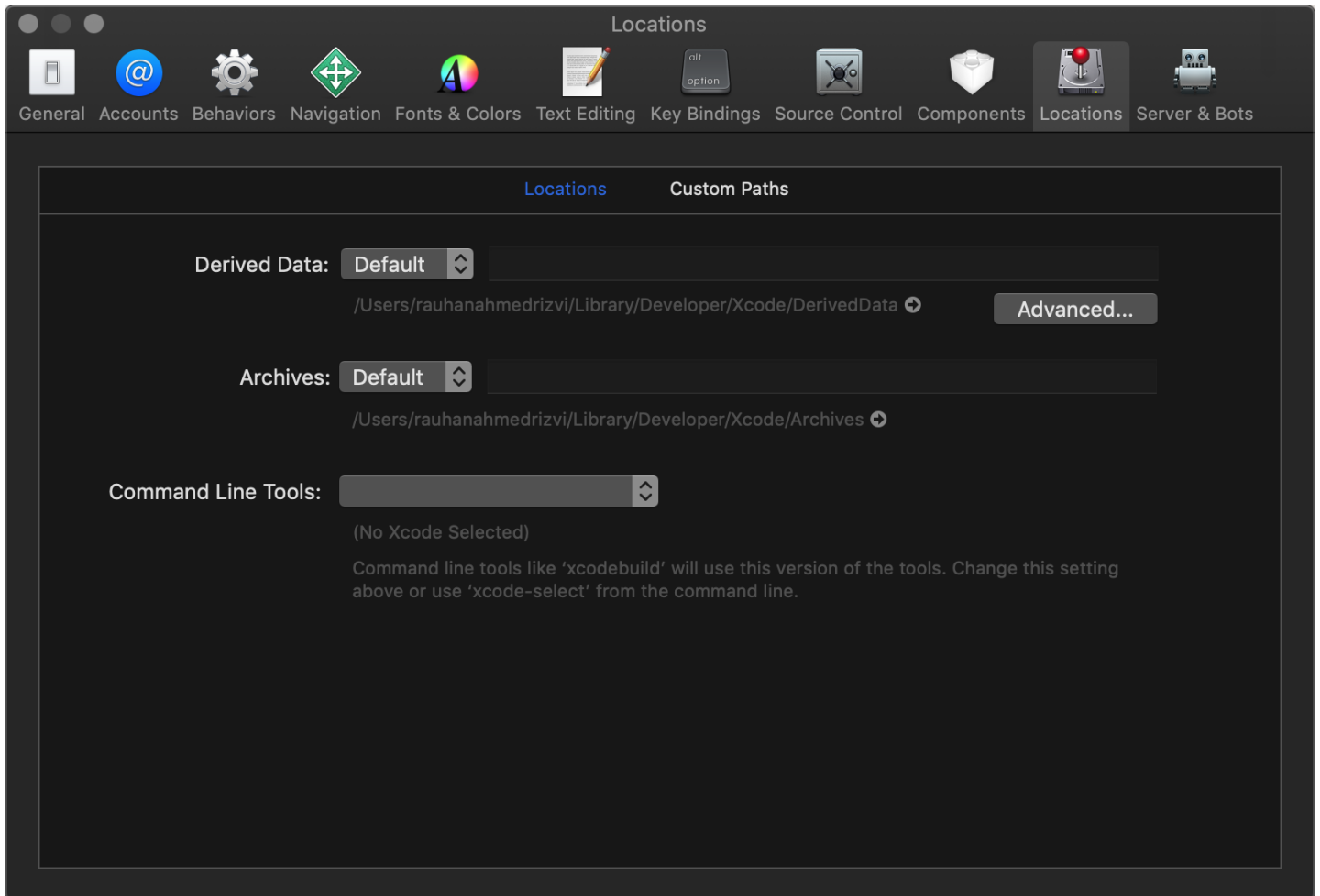
We can also install it directly from the terminal using `xcode-select --install`.

Accessing Apple Command Line Tools

Open XCode and complete the installation. It may require authentication through

our password.

From the top menu, select the **XCode** drop-down menu and move to **Preferences**. Go to the **Locations** tab where we can see a **Command Line Tools** field:

Select the XCode version which we've just installed. Now we have access to Command Line Tools. To verify this, run the `make` command on the terminal. If the installation did not work, we'd get an error saying that this command is not found.

Installing Homebrew

Homebrew is the universal package installer for macOS. Mac users will definitely need Homebrew for the future as well, so it's always a good idea to install it.

In the terminal, run the following command to install Homebrew:

```
ruby -e "$(curl -fsSL https://raw.githubusercontent.com/Homebrew/install/master/install)"
```

Now, we must add Homebrew to our **PATH**. Open the `.bash-profile` file using the following command:

```
nano .bash profile
```

At the bottom of this file, add the following line:

```
export PATH="/usr/local/opt/python/libexec/bin:$PATH"
```

Installing the Latest Python3

With everything in place, all we have to do is use Homebrew to install Python3 using the following command:

```
brew install python3
```

Type `python3 --version` in the terminal. If the new Python3 is displayed, everything worked.

If the `python3` command is not recognized, run the following commands:

```
brew install python
brew link python
```

Try checking the version again and everything should be fine.

2. Using the Official Site

Although the method described above is recommended, an alternative is to download the Python3 setup from the official download page:

Run the `.pkg` file and go through the default installation steps. After the process is complete, open the terminal and verify if Python3 is installed using the `python3 --version` command.

3. Using Anaconda

Anaconda is a very popular open source data science platform which comes equipped with Python3 out of the box. Furthermore, many Python3 libraries and packages are already pre-installed.

This is definitely the best approach for beginners who are new to shell and terminal commands.

The setup is fairly simple. Visit the official download page and select the graphical installer for macOS (both graphical and command-line installers are available).

Navigate through the installation and select **Install for me only** in the **Destination Select** window:
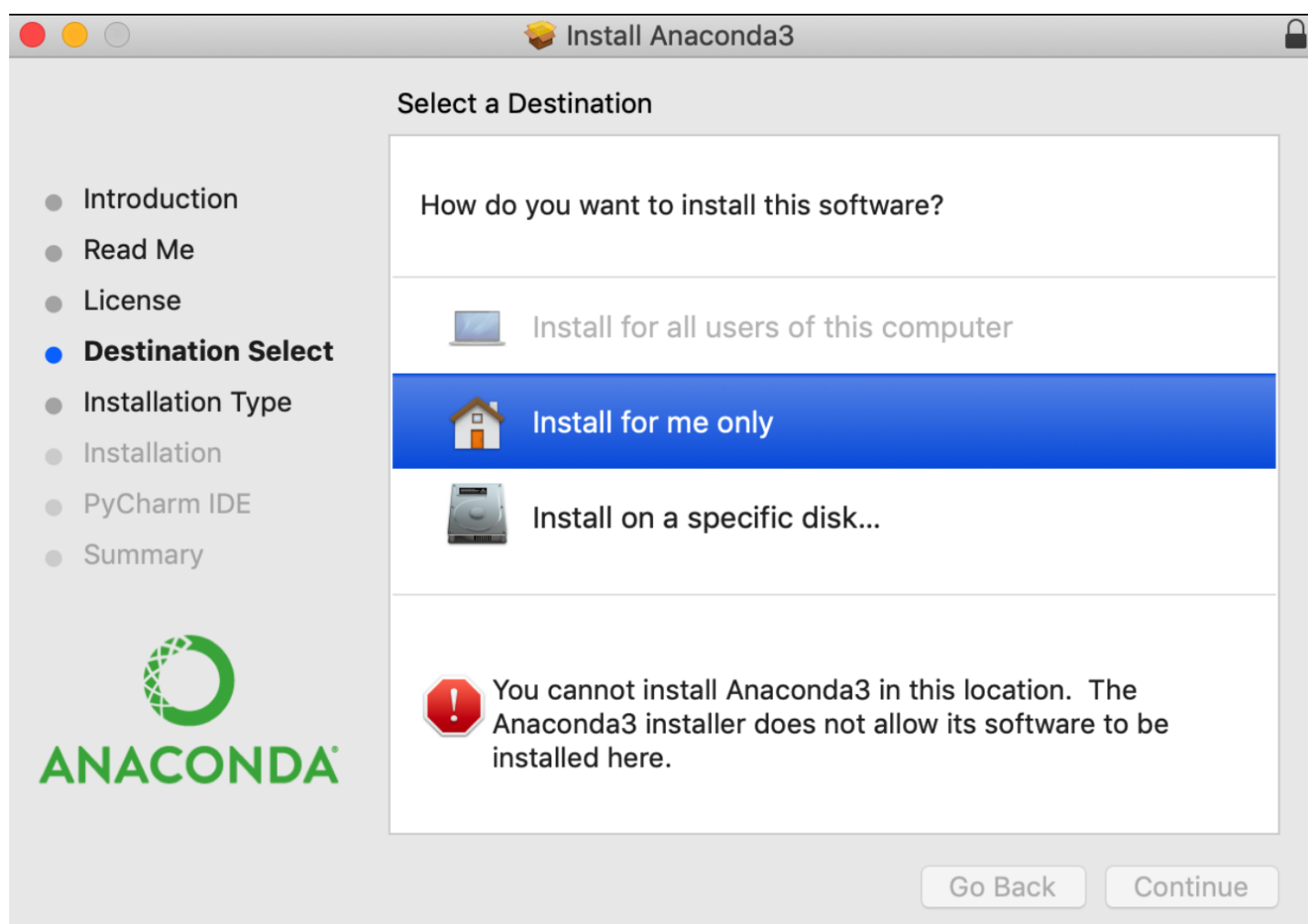
After installation, we can simply type `python` in the terminal to run Python. This will show us the version which we're running and shift us to the Python environment. Don't worry about the rest for now. Exit the Python shell using `quit()`.

These are all the different ways we can install Python3 on our macOS machine. Hopefully, everything went smoothly. If you have any questions, do reach out to us!