

IS439 – Web Development Using Application Frameworks

Instructions for Tool Versions, Installation, and Virtual Environments

Spring 2026

Instructions

Overview

While setting up your computing environment, you will need to install several software products and do some configuration. I have provided tutorial videos for you to follow when doing those activities. In the videos, I install the version of these tools that we were using when I made the recording. Since you may be taking this course in a later semester, you will need to know which versions to install. This document provides that information.

Installing Anaconda

Follow my tutorial video to install the latest version of Anaconda. If there is any reason in the current semester why you should not install the latest available version, I will provide a warning and instructions on finding the correct version here:

- In Spring 2026, installing Anaconda is tricky. We will not be downloading the software using the standard Anaconda Downloads web page. Instead, I have provided a link in the Weekly Schedule to the *Archive of Installation Files for Anaconda Distribution*. This link will allow us to download the files that we will need without having to create an Anaconda account. Further, it will make installation files available for students who have older Apple Mac computers that are based on Intel chipset. Files for those older Macs are not available on the normal Anaconda download page.
- I have created tutorial videos for you to follow to help you through the download and installation process. There is one tutorial video for students using Windows. There is a separate tutorial video for students using Apple Mac computers. This second tutorial video applies both to students with newer Macs that are based on the Apple (ARM) chipset and also to students with older Macs that are based on the Intel chipset.

Updating Anaconda

Even though you might have just installed Anaconda for the first time, your copy of Anaconda will need to be updated. Often, if students are having software problems later in the semester, I will send them back to these instructions and the related tutorial so that they can update their copy of Anaconda again. To update Anaconda, follow my tutorial video. I have provided separate tutorial videos for Windows users and for MacOS users.

Creating an Anaconda Virtual Environment

The process of creating an Anaconda virtual environment is slightly different for students using Windows and for students using MacOS. So, I have created separate tutorial videos for each case. Please play the video that applies to your circumstances.

To make it easier for us to run your work and evaluate it for grading, it is important that we all use the same name for our Anaconda virtual environment. Please name your environment as follows:

- `e4_trainor_python_course`

In the current semester, these are the packages that we are including in the virtual environment using the conda install command:

- `python (3.12)`
- `jupyter` (the Jupyter metapackage)
- `pytest`

In addition, we will be including the packages to support the Sweigart textbook using the pip install command:

- `automateboringstuff3`

In the current semester, we are having trouble getting the entire `automateboringstuff3` package to install without a problem. We are getting error messages for the following package:

- `playsound`

The tutorial video includes instructions for recovering from this expected error.

Installing PyCharm

The process of installing PyCharm is slightly different for students using Windows and for students using MacOS. So, I have created separate tutorial videos for each case. Please play the video that applies to your circumstances. By following the instructions in the tutorial, you will accomplish the following:

- Get a student license from JetBrains that will allow you to use JetBrains products for free during our course.
- Set up a JetBrains account.
- Install JetBrains Toolbox.
- Install PyCharm.
- Create and configure your first Python project using PyCharm.

Please make sure that you follow the directions in the tutorial video. These include using the JetBrains Toolbox and installing PyCharm. Students in prior semesters have decided that they could skip steps or take alternative approaches. This led to problems for them that only became apparent later in the semester.

If there is any reason in the current semester why you should not install the latest available version of PyCharm, I will provide a warning and instructions on finding the correct version here:

- No problems expected. Install the latest available version.

Creating an Anaconda Virtual Environment for Django Projects

Follow my tutorial video to create the Anaconda virtual environment that you will be using for this course. It should have the following name:

- e4_trainor_django_course

Please do not use an alternative name for your virtual environment. Using this exact name makes it easier for us to grade your coding assignment submissions.

In the current semester, the packages in the list below are the packages that you should include in the virtual environment. Note that I am expecting you to use Python 3.11 and Django 5.1 even though these are not the most recent releases of those packages.

- python (3.11)
- django (5.1)
- pytest