Projects

Fall 2025

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Getting Started:

IDE:

We strongly recommend VSCode. It's well-integrated with a bunch of technologies, languages, packages, etc. If you have another environment, run it by us first.

Package Management:

We strongly recommend using some kind of virtual environment. It's good practice for real-world development and you may need it already depending on the libraries you choose to use. You can decide between venvs and conda Conda https://docs.conda.io/projects/conda/en/latest/user-guide/concepts/environments.html https://docs.conda.io/projects/conda/en/4.6.0/user-guide/tasks/manage-environments.html# Venv https://realpython.com/python-virtual-environments-a-primer/ https://docs.python.org/3/library/venv.html Setting up on VSCode: https://code.visualstudio.com/docs/python/environments **Make sure everything is standardized within your group. Everyone should have the same version of Python, same version of every library, etc.** See https://www.freecodecamp.org/news/python-requirementstxt-explained/

Version Control:

Create a GitHub repository that your group will work from. Follow these tutorials

First, make a GitHub SSH key using this link: https://docs.github.com/en/authentication/connecting-to-github-with-ssh/generating-a-new-ssh-key-and-adding-it-to-the-ssh-agent Then follow these tutorials to make a repo and clone https://docs.github.com/en/repositories/creating-and-managing-repositories/quickstart-for-repositories https://docs.github.com/en/repositories/creating-and-managing-repositories/cloning-a-repository Then, create your own branch. If all team members work directly on the main branch, you will inevitably run into merge conflicts. It's thus industry standard to manage a project with multiple branches. In our case, each team member will have their own branch that they push their changes to. After, you can create a pull request to merge to the main branch. If this is new to you, I highly recommend reading this tutorial on GitHub branch management: https://www.atlassian.com/git/tutorials/using-branches