Setting Up Your Development Environment

Step-by-step guide

# Requirements

* A computer with Windows 10 or later.
* An internet connection.

# Steps

## Step 1: Download Python 3.10+

Note: please check whether you have each thing installed before installing again!

1. Visit the official Python website to download Python 3.10 or later. You can find the download link [here](https://www.python.org/downloads/).
2. Follow the instructions in the installation wizard. Here’s a helpful video [guide](https://youtu.be/yivyNCtVVDk) if you need it.
3. During the installation process, untick the IDLE installation option to save local storage.
4. Make sure to tick the ‘Add to environment variables’ option. This will allow you to run Python from any directory in the command line.
5. After installation, open PowerShell and run the command `python –version` to verify that Python has been installed correctly.

The most common issue encountered here is that Python isn’t added to your environment variables. Should you wish to check, you can find it in your PC settings and looking at the PATH variables.

## Step 2: Install Miniconda

1. Download Miniconda from the official website. You can find the download link [here](https://docs.conda.io/projects/miniconda/en/latest/miniconda-install.html).
2. Follow the instructions in the installation wizard, select all the default settings.
3. After installation, open the Anaconda PowerShell Prompt and run the command `conda init powershell`. This will allow you to interact with your virtual environments in PowerShell instead of the specialist command line.
4. To verify that Miniconda has been installed correctly, open PowerShell and run the command `conda`.

## Step 3: Download Visual Studio Code (VSCode)

1. Visit the official VSCode website to download the latest version. You can find the download link [here](https://code.visualstudio.com/download).
2. Follow the instructions in the installation wizard.
3. After installation, open VSCode and add the Jupyter extension and Azure extension.

## Step 4: Download Git

1. Visit the official Git website to download the latest version. You can find the download link [here](https://git-scm.com/downloads).
2. Follow the instructions in the installation wizard.

# Conclusion

You have successfully set up a development environment for Python. You can now start writing and running your code in VSCode, using Miniconda to manage your packages and Git to track your changes.

From here, you can work through the first homework notebook to get a Jupyter Notebook up and running for you to practice some Python basics.

Happy coding!