Python in QGIS & ArcGIS

Exercise 1

1.1 – Let's get started…

Goal of this Exercise
Throughout the semester, we will explore various functions of QGIS and ArcGIS. To effectively complete the tasks during the semester, it is essential to have a functional Python environment for both QGIS and ArcGIS. We will use Visual Studio Code for programming in an external development environment. Additionally, some of your results will be shared via GitHub. For programming QGIS plugins, we will also need Qt Designer.

Materials
No (geo)data materials are available for this task.

Tasks (0 Points)
Please establish a foundation for completing the tasks. To do this, install the following components on your computer in the latest version (unless otherwise specified):

- Visual Studio Code
- GitHub
- ArcGIS Pro
- QGIS Long Term Release 3.34

Next, set up your working environment. This includes the following points:

- **Configure Visual Studio Code**
  - Install the Python Extension for Visual Studio Code
  - Install the Python Debugger for Visual Studio Code

- **Connect your GitHub account to Visual Studio Code: Guide**

- **Set up the Esri Python interpreter from ArcGIS Pro in Visual Studio Code: Guide**
  Verify that the command **import arcpy** can be executed successfully!

- **Set up the QGIS Python interpreter in Visual Studio Code.**
  Note: There are many different approaches, some of which may not lead directly to success. Perhaps start by following the instructions in the official PyQGIS Developer Cookbook: A Note on Configuring Your IDE on Linux and Windows

  Alternatively, this tutorial helped me with the setup: YouTube Tutorial.

  Verify that the command **from qgis.core import *** can be executed successfully!

General information
Please prepare you environment until the next session.