esri UK

Training the GIS Professional

Getting Started with the Python Scripting Language - 1 day

Overview

Python underpins many functions in the ArcGIS System, especially within ArcGIS Pro, where it is used to automate mundane and repetitive geoprocessing tasks, publish and create services within your Portal and manage the ArcGIS Pro Project.

Using the IDLE developer environment you will be taught the basics of the Python scripting language and you will gain a solid foundation to writing Python scripts. On completing this course you will have the necessary background skills to undertake the relevant Python courses for ArcGIS Pro and administering your portal using Python. This course is aimed at people with no previous programming experience.

Please be aware that this course contains no instruction on how to perform geoprocessing using the arcpy site package or the ArcGIS API for Python (arcgis site package).

Who should attend

- GIS Analysts or GIS Technical Leads
- GIS Professionals
- GIS Desktop Application Developers
- GIS Application Developers

Goals

- Learn how to create Python scripts
- Investigate the Python language syntax
- Understand what variables and objects are
- Work with Python Lists, Tuples and Dictionaries
- Process sequence objects using loops and perform conditional branching
- Learn how to access additional functionality supplied with Python

Topics Covered

- **Introducing the Python scripting language**: Introducing Integrated Development Environments (IDEs); Introducing the IDLE IDE; Python keywords.

- **Understanding objects and variables**: Variables and objects; Introducing object members; Modelling real-world objects.

- **Introducing Python's basic data types**: Introducing Python data types; Working with the String data type; What can you do with String objects? Python f-strings; Python numeric data types.

- **Python's built-in functions**: Obtaining Python's built-in functions; Function syntax; Working with built-in functions; Obtaining help.

Topics Covered Continued

- **Introducing Lists and Tuples**: What is a Python list? Working with the list object; Working with and processing Python tuples.

- **Introducing Dictionaries**: What is a Python Dictionary? Introducing Python dictionaries; Python and Esri: Dictionaries; Working with Dictionary members.

- **Conditional Branching and operators**: What is a conditional statement? Conditional statement syntax; Using operators; Code examples; if statements.

- **Performing repeatable tasks**: Looping through Sequence objects; Code examples: Looping; Syntax rules for conditional branching and looping.

- **Working with Python's standard modules**: Uses of modules; Ways of importing modules, some of Python's common modules

Prerequisites

This course is a pre-requisite for the following courses:
- ArcGIS Pro: Creating Python Scripts for ArcGIS.
- Advanced ArcPy for ArcGIS Pro
- Introduction to Administering your Portal using the ArcGIS API for Python
- Writing Advanced Scripts with Python

Contact Us

For GIS training enquiries and bookings visit esriuk.com/learning, email us at learning@esriuk.com or call us on 01296 745504