

### Lesson 3: The Geoprocessing Model

Download the Lesson3.zip file from the course webpage. Unzip the folder to begin.

Assignment 3a: Write a script using the Exists method and the Overwriteoutput property.

- Use the script lesson3a.py to get started
- Be sure there is code wherever there are comments, and add comments where necessary.
- Write a script that does the following:
  - Checks the current workspace (Lesson 3) for a dataset called landcover
  - If the dataset exists, then use the CopyRaster tool (Data Management) to make a backup copy called landcover\_bak
  - If it doesn't exist, print a message that says "Dataset does not exist."

Assignment 3b: Learn how to use Arguments in a script.

- Make a copy of the script lesson3a.py, using 'Save As' and call it lesson3b.py
- Modify the lesson3b.py script so that the user is required to provide the name of the dataset as an argument.
- Write a script that does the following:
  - Checks the current workspace (Lesson 3) for the dataset.
  - If the dataset exists, then use the CopyRaster tool (Data Management) to make a backup copy called <dataset\_name>\_bak
  - If it doesn't exist, print a message that says "Dataset <dataset\_name> does not exist."

Assignment 3c: Writing a script that creates Describe objects using the Describe method.

- Use the script lesson3c.py to get started
- Be sure there is code wherever there are comments, and add comments where necessary.
- Write a script that does the following:
  - Takes a name for a dataset from the user as an argument
  - Finds out what type of dataset it is.
  - If it is a raster dataset, prints the cell size.
  - If not, prints "The dataset <dataset\_name> is not a raster."
- Hint: remember that the conditional operator is ==, not =