**Week 10 – Notes from the Lecture**

**Is `listdir()` Part of ArcPy?**

No, `listdir()` is not part of ArcPy. It is a method from Python's built-in `os` module, used to list all the files and directories in a given directory. You would typically use it to interact with the file system in general, not specifically for geospatial data in ArcPy.

To use `listdir()` in Python:

import os

files = os.listdir("path/to/directory")

In ArcPy, there are other tools like `arcpy.ListFeatureClasses()` or `arcpy.ListRasters()` that are specific to listing geospatial data elements within a workspace.

**What is the Workspace Property?**

In ArcPy, the workspace property refers to the default location (usually a folder or geodatabase) where geoprocessing tools will look for inputs and place outputs unless a full path is specified. By setting the workspace, you avoid the need to repeatedly specify the full path to data in geoprocessing tools.

Example:

import arcpy

arcpy.env.workspace = "C:/data"

```

Once the workspace is set, tools will automatically use this folder unless told otherwise. For example, if you run `arcpy.ListFeatureClasses()`, it will list all feature classes in the `"C:/data"` folder without needing to specify the folder explicitly.

**What is a Wildcard?**

A wildcard is a symbol or character used to represent one or more characters in a string, typically when searching or filtering for specific data. In ArcPy, wildcards are often used when listing or selecting data (like feature classes, tables, or rasters) based on part of their names.

In ArcPy, you can use wildcards with certain tools, such as `arcpy.ListFeatureClasses()`, to filter results based on name patterns.

- `\*` (asterisk): Matches zero or more characters.

- `?` (question mark): Matches exactly one character.

Example:

# List all feature classes that start with "roads"

fc\_list = arcpy.ListFeatureClasses("roads\*")

In this case, `"roads\*"` will match any feature class that starts with "roads", such as `"roads\_highway"` or `"roads\_local"`.

Wildcards allow you to target specific datasets without specifying full names, making workflows more flexible and dynamic.