18S856154: Application Development assignment

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**Topic:** ArcGIS 10.6 Python toolbox for unsupervised classification

**Purpose:**

To classify a raster layer using unsupervised classification and save the result as a feature layer.

**Toolbox name:** unsupervised.pyt

Toolbox available for download at:

https://github.com/Magitmk/ArcMap10.6-Python-toolbox-unsupervised-classification

**Description:**

This is a Python toolbox that requires 4 parameters to be inputted by the user. The first parameter requires browsing to a raster layer. The second parameter requires entering the number of classes for classification. The third parameter requires entering the number to represent the minimum number of cells to make a valid class. The fourth parameter requires the distination path with file name to save the feature layer that is outputted by the tool.

Once the tool is running it uses the parameters entered by the user to perform an unsupervised classification using the arcpy tool "IsoClusterUnsupervisedClassification".

The result, which is a raster layer is then converted to a feature layer using the arcpy tool "RasterToPolygon\_conversion", which saves it to the output destination entered by the user.

Once opened the tool has a side menu with descriptive meta-data to guide the user for filling each parameter on the Graphical User Interface of the tool.