**Project 4 Write up**

I ran my python program and produced polylines for each rhino with names in the attribute table. I used a dictionary with a for loop with the fields and rows combined. I created a spatial reference using a .prj file that from a blank shapefile. I used a set coordinate system (GCS\_WGS\_1984) as a reference. I created feature classes and added fields to the attribute table. I learned how to use an insert cursor for a shapefile that later tied to a dictionary I defined earlier in the code. I created and used an array for a polyline in ArcMAP with a set of coordinate points. The polyline seemed to be a combination of two functions combined together, which was tricking to understand for a while.

I did not meet all expectations. I tried to create just one shapefiles while in the end I used two different shapefiles to make my code work. Also, I tried to avoid referencing a .prj file as the work around to get the spatial reference, but the silver lining was I learned how to use the tool with my python code. I worked to create an insert cursor to list all of the coordinate pairs for each rhino in the shapefile, but I could not figure it out.

If I had more time I would have created a file geodatabase and converted the shapefile. I had some issues with corrupted files for a bit, which affected how much time I had to attack the problem going from the csv way to the xlrd way in the end. If I had more time I would have made a second feature class that would have showed the points laid below the polyline in ArcMAP to better represent the movements of each rhino.

I am proud of how my code turned out in the end result.