

```
In [3]: from sklearn.cluster import AgglomerativeClustering
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
from sklearn import metrics
```

```
In [4]: data = pd.read_csv("zoo.csv")
data.head()
```

Out[4]:

	animal_name	hair	feathers	eggs	milk	airborne	aquatic	predator	toothed	backbone	bre
0	aardvark	1	0	0	1	0	0	1	1	1	
1	antelope	1	0	0	1	0	0	0	1	1	
2	bass	0	0	1	0	0	1	1	1	1	
3	bear	1	0	0	1	0	0	1	1	1	
4	boar	1	0	0	1	0	0	1	1	1	



```
In [5]: #Find unique class types
unique_classtypes = np.unique(data["class_type"].values)
```

```
In [8]: #Initialize Agglomerative Clustering
agglo = AgglomerativeClustering(n_clusters=4)
predicted_values = agglo.fit_predict(data.iloc[:, 1:16])
```

```
In [9]: #Accuracy Score
print("Accuracy Score")
print(metrics.accuracy_score(predicted_values, data["class_type"].values))
```

Accuracy Score
0.0297029702970297

```
In [11]: #Mean Square Error Value
print("Mean Square Error Value")
print(metrics.mean_squared_error(predicted_values, data["class_type"].values))
```

Mean Square Error Value
7.198019801980198

In []: