Attribute Selection

Attribute	Rationale for Selection
Price	The 'price' of each app that a user purchases captures user's purchasing behavior.
adCount	'adCount' captures user's inclination to click on ads.
adCategory	Frequency of particular 'adCategory' captures particular users general inclination to a specific category.

Training Data Set Creation

The training data set used for this analysis is shown below (first 5 lines):

```
In [25]: combinedDF.head(n=5) #display how the merged table looks
Out[25]:
   userId  totalAdClicks  revenue
0       1             44     21.0
1       8             10     53.0
2       9             37     80.0
3      10             19     11.0
4      12             46    215.0
```

Dimensions of the training data set (rows x columns) : (543,2)
# of clusters created: 2

Cluster Centers

Cluster #	Cluster Center
1	[39.07608696, 115.26086957]
2	[27.39467849, 23.86474501]

These clusters can be differentiated from each other as follows:

Cluster 1 is different from the others in that, in general, players click on ads and spend more. The click: spending ratio is 3:10.

Cluster 2 is different from the others in that, in general, players click on ads more and spend less. The click: spending ratio is 0.8:1.

Recommended Actions

Action Recommended	**Rationale for the action**
Priority to high ‘click: revenue’ ratio	Priority must be give to those users who are included in the cluster having high ‘click: revenue’ ratio.
Priority to low ‘click: revenue’ ratio by selective age	Even though the ration of click: revenue is less, there is important information in age of the users, platform used and geographical regions. Further clustering is required in this case to improve the performance.