Answers to Assignment 6 Questions

*Task II*

* **Using K-means, can you identify the novices from the experts using only the app data?**
  + Yes. According to the graph, you can see clear clusters on those that are doing well (experts) and those that are not (novices). Then when we compare with the number of push-ups each person did the clusters correspond, thus k-means does work for our activity in showing experts and novices in our group.

*Task III*

* **What does PC1 represent in your analysis?**
  + PC1 represents all 5 of our questions with relatively equal percentages (43.96%, 45.03%, 46.90%, 41.11%, 46.36%). PC1 composes a relatively high 86.76% (cumulative proportion) of all the variance.

*Task IV*

* **If you could only choose one thing to predict the score for each member of your group (raw data variable, a cluster or a PC) what would it be and why?**
  + PC1 would be the best option for predicting the score of each member of the group because it is more representative of each
* **Based on your conclusion devise an intervention that would help novice members of your group improve their performance**
  + Novice members could repeat the activity daily for improved results.
  + Novice members can do fast pushups in the beginning to make up for the lost energy in the end, which results in less or no pushups.