Data:

1. Run the visualization notebooks to get an idea of what clusters are relevant (all the subsequent points are for the clusters visualized in the plot). There are two such notebooks, once for the crawling and one for the swimming behaviors.

2. In addition you will find the tree\_sids.csv in the zip folder. First column is tree ID, second is 0 for unknown, 1 for excitatory, -1 for inhibitory.

Tasks:

Implement within a new notebook code to determine the following:

- How many clusters are there for the swim vs for the crawl trial?

- The number of synapses within each cluster

- Average number of synapses for each behavior (and the SE)

- For each behavior, what is the fraction of synapses in the clusters which are 1. excitatory 2. inhibitory 3.unknown?