**Introduction / Business Problem**

Prior to the COVID-19 outbreak, there was a surge in demand for fitness activities and gyms in Singapore. According to [Statista,](https://www.statista.com/outlook/dmo/eservices/fitness/singapore) total revenue from Singapore’s fitness industry was projected to reach US$ 29 million by the end of this year, and gym attendances have seen a 4.82% compound annual growth rate between 2011 and 2019.

With the proliferation of both indoor and outdoor gyms, fitness centres and programs nationwide, the local fitness market has become crowded in recent years. New entrants that rely on physical space should pick their locations carefully so as to avoid competition with established players, but yet take advantage of local consumer preferences like off-work gym sessions and mid-day workouts among working urbanites.

This project aims to determine which clusters are best for setting up a new gym or fitness centre by assessing the concentration of such venues within particular districts.

**Data**

Beyond the Foursquare API, data used in this project include the table of Singapore’s planning areas from this [Wikipedia page.](https://en.wikipedia.org/wiki/Planning_Areas_of_Singapore) Additionally, geolocational data gathered from geocoder will also be used in the project.