# SMT201 G2T5 Project Proposal & Overview

# Summary

Due to the low birth rates and changing demographics in Singapore, the government has decided to merge different primary, secondary and tertiary schools so as to meet the demands of the changing population. This project aims to find out the effect of school mergers in Singapore on the accessibility of schools for people. Our objectives are to analyse our findings so that we can evaluate whether there are enough schools in certain areas and how the mergers can potentially affect people’s choice of housing. We plan to do so by comparing the locations of schools and their accessibility before and after merger.

Our findings have concluded that the merger of schools in Singapore does not have significant impacts on equity of access to schools. However, the merger of pre-tertiary institutions has the most significant impact compared to other school types and this will be explored further in our report.

# Motivation

Singapore has been facing a serious issue of low birth rates and changing demographics in our housing estates in recent years. As a result, the government has decided to merge pairs of schools so as to ensure that all schools still have an adequate number of students and a vibrant learning experience with a good range of educational programmes and co-curricular activities.

Hence, in this project, we want to find out how these mergers have affected the accessibility of schools in Singapore for students. We studied the data collected and prepared a report to present our findings and results.

# Project Objective

Our objective is to prepare a report of survey covering these aspects of our study area to answer these important questions:

* How has the merging and closure of schools affected accessibility of schools to people?
* Are there enough schools in the area to meet demands in different regions of Singapore?
* Which areas have less schools and hence are less accessible which may potentially affect the choices of housing?
* Analyse how all these factors have affected the equity of access to schools in Singapore.

# Data

* education.csv - provides general information of public primary schools, secondary schools and junior colleges. This data set was downloaded from Data.gov.sg and geocoded by using SLA OneMap Api.
* Master Plan 2019 Subzone
* POP2020 - provides population by age group as at June 2020. It is downloaded from Department of Statistics (DOS), Singapore. The data set provides multiple years of population data.
* education.csv contains data of schools from 2021 onwards after the mergers and closures, hence we have to manipulate the data. Data is manipulated using information from the websites below:
* <https://fionaseah.com/category/general-knowledge/closed-schools-in-singapore/page/2/>
* <https://fionaseah.com/category/general-knowledge/closed-schools-in-singapore/>
* <https://www.straitstimes.com/singapore/education/new-names-of-merging-junior-colleges-to-be-combination-of-original-names>
* <https://sg.theasianparent.com/school-merger-in-singapore>

# Scope of Work

The project will comprise of, but not limited to the followings steps:

* Selection of project areas of schools in Singapore and years that mergers took place.
* Collection, extraction, integration, transformation and wrangling of data of schools in Singapore.
* Designing and building GIS model and database to map the accessibility of schools in Singapore.
* Preparing report of findings
* Performing site suitability analysis by integrating GIS and multi-criteria evaluation methods.
* Preparing site suitability analysis report including detailed discussion of the analysing method used.
* Preparing poster and project webpage.