Sept 11th**:**

* Group created; four members met in campus.
* Exchange ideas for main topic, created google doc for group discussion.
* Topic we gathered: Covid related, Crime rate related, Average wage in a nz city, nz economic associated with the world, health related.

Sept 12th:

* We did some recap on previous labs from lab1 to lab6.
* We tried to do some searching for data that relevant to topics until lab ended.
* The one of member missing

Sept 18th:

* Second group meetup to finalize the topic.
* Gather collected data in a folder and test if they are legitimate to be used
* We decided on nz economic associated with the world as our topic as we struggle to find much suitable data for other topics

Sept 25th:

* We came up with some specific ideas about our topic according to what we have found so far. Each person is assigned with a task to do.
* we have been continuously looking for required data for hours and some are relatively easier to find like the education fee around the world and rang a period, tourism data, the Overseas Merchandise Trade data, some are found but requiring data wrangling.
* Major challenge to all of us are the date range/type and district name are not always aligned, so we must modify them either by manual or by functions. If we realize some data have very short coverage, we will discard the data.

Oct 9th:

* Group meetup in campus today
* Three members confronts different level of difficulties on wrangling and merging data frames as well as plotting with styles (Danyang Wang no show)
* The education part has been modified good enough to make plots
* help each other for the code problem we met.

Oct 23th.

* When we finally checked the report, we found inexplicable phenomena in the tourism sector, and reorganized the data for optimization and came up with new results.

Oct 10th

* The two of Group members meet in the library
* Had a discuss session which we talked about what we did and what caused troubles while we are wrangling data following what we talked about yesterday.
* Attempted to create multi bar chart for Tuition fee. Had problem of how to combine and sort data in a way it can be used for multi bar chart ggplot.
* Make a gitbub to combine the eduction and travel part easy to modify and synchronize code later

Oct 13th

* Extra group meetup in campus of three members (Danyang Wang no show)
* oversea trade data frames have been modified enough to be used for ggplots.
* Some has issues of installing certain packages
* Integrate everyone's code as a project. Modified to make it more beautiful
* Talk about how to write the report from the result we got so far

Oct 15th

* report has been finished today.
* Some minor changes on the graph to adjust the size.
* Presentation power point has been created
* Danyang Wang did nothing

Oct 16th.

* Team meeting on zoom for three members, preparation for the next day's presentation.