**The Task**

The specific tasks of this take-home exercise are as follows:

* Using appropriate function of **sf** and **tidyverse**, preparing the following geospatial data layer:
  + a study area layer in sf polygon features. It must be at [province level](https://en.wikipedia.org/wiki/Provinces_of_Thailand) (including Bangkok) of Thailand.
  + a tourism economy indicators layer within the study area in sf polygon features.
  + a derived tourism economy indicator layer in [**spacetime s3 class of sfdep**](https://sfdep.josiahparry.com/articles/spacetime-s3). Keep the time series at **month and year levels**.
* Using the extracted data, perform global spatial autocorrelation analysis by using [sfdep methods](https://is415-gaa-tskam.netlify.app/in-class_ex/in-class_ex05/in-class_ex05-glsa).
* Using the extracted data, perform local spatial autocorrelation analysis by using [sfdep methods](https://r4gdsa.netlify.app/chap10.html).
* Using the extracted data, perform emerging hotspot analysis by using [sfdep methods](https://is415-gaa-tskam.netlify.app/in-class_ex/in-class_ex05/in-class_ex05-ehsa).
* Describe the spatial patterns revealed by the analysis above.

**Objectives**

As a curious geospatial analytics green horn, you are interested to discover:

* if the key indicators of tourism economy of Thailand are independent from space and space and time.
* If the tourism economy is indeed spatial and spatio-temporal dependent, then, you would like to detect where are the clusters and outliers, and the emerging hot spot/cold spot areas.