

110-1 時空資料視覺化 期中考報告

2021-Fall Spatiotemporal Data Visualization Midterm Exam

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Data exploration report (1-page): 20 points

Exam R shiny Webpage Link : <https://r09228001.shinyapps.io/midterm/>

① Summarize space–time patterns of visitors in different types (室內/室外/綜合) of tourist spots.

There are totally 10 tourist spots in this analysis. Three of them are indoors, three of them are outdoors and the rest are both indoors and outdoors. As the space–patterns of visitors in different types, for nationals, Palace Museum and Water Amusement Park received the most tourist compared to other spots and this phenomenon can also found for foreigner tourist but the clean farm comes to third as popular tourist spots much more distinguishable compared to nationals. For time–series analysis, For nationals, June–Oct possess the most tourist but in 2021, due to the local outbreak of COVID–19. there are little tourist. For foreigners, Aug–Feb possess the most tourist but when 2020–2021, because of the outbreak of COVID–19, the foreigner tourist is almost none. To sum up, the most popular tourist spots for both nationals and foreigners are Palace Museum which is an indoors place.

(a)

(b)



Fig.1 (a) time–series for foreigners (b) time–series for nationals.

② Compare the seasonality of visitors in different tourist spots

In order of compare the seasonality of visitors in different tourist spots, I generated the seasonal plots and heat maps for seasonality of time series respectively on my webpage link. When we compare 10 tourist spots, for Palace Museum, April–May seems as a popular season; for salt mountain, June–Aug and Nov.–Feb seems to be popular seasons; for water amusement park, April–May seems to be a popular season; for Kousiung art museum, April and may seems to be a popular season; for seven star lake, June–Aug seems to be a popular season; for monkey cave cat village, June–Aug seems to be a popular season ; for little man world, April and may seems to be a popular season; for Aboriginal tribes, April and may seems to be a popular season and for Lugon dragon temple, April–Octobers seems to be a popular long season and finally, for clean farm, June–Aug seems to be a popular season . Overall, the spring vacation and summer vacation appear to be the high spot seasons for visitors in these tourist spots (refer to Appendix).

Appendix

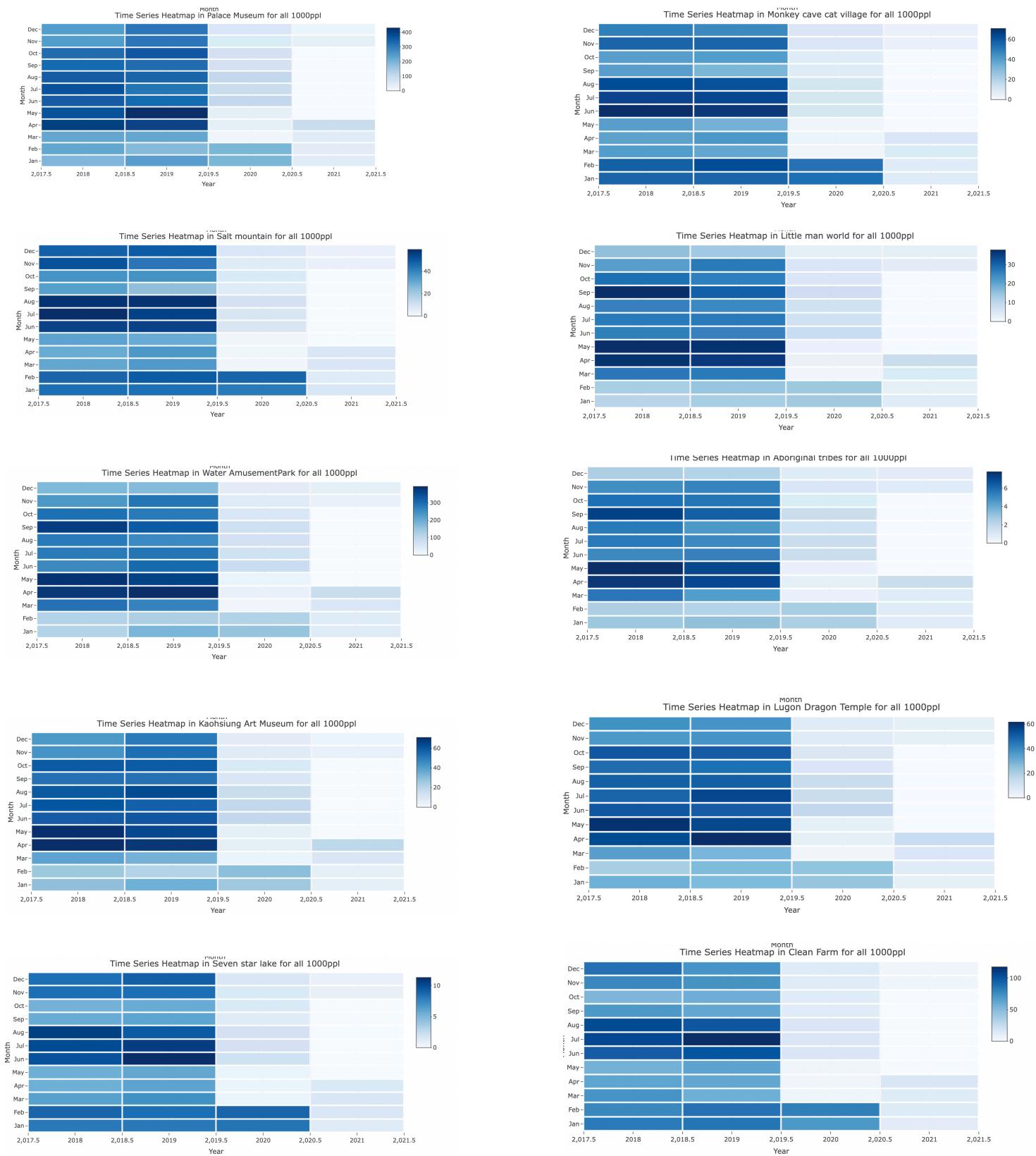


Fig. 2 Heat maps of seasonality of time series in each tourist spots.