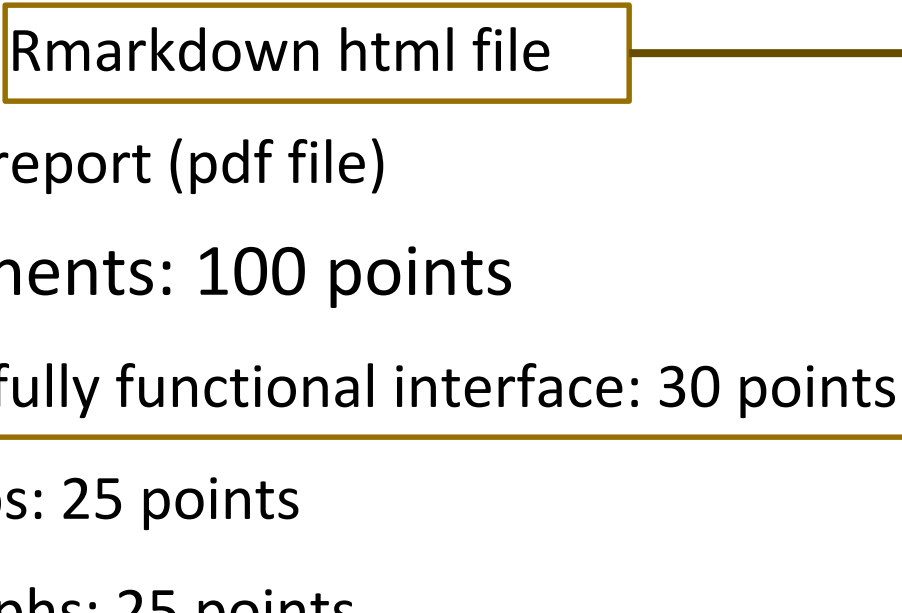


Midterm Exam: 11/05 - 11/15

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Midterm Exam

- Due date: 11/15 (Mon.)
 - Submission materials:
 - The web-link or Rmarkdown html file
 - 1-page written report (pdf file)
 - Grading components: 100 points
 - R Shiny for the fully functional interface: 30 points
 - Interactive maps: 25 points
 - Time-series graphs: 25 points
 - Data exploration report: 20 points
- 
- A diagram consisting of a brown line that starts from the right side of the box containing 'Rmarkdown html file', extends horizontally to the right, then turns vertically downwards, and finally turns horizontally to the left, ending with an arrowhead pointing at the 'Interactive maps: 25 points' item in the grading components list.

Data

spots.csv

	A	B	C	D	E	F	G	H
1		Name	County	Districts	x	y	Capacity	types
2	1	國立故宮博物院	臺北市	士林區	121.54849	25.10236	550000	室內
3	2	七股鹽山	臺南市	七股區	120.1	23.15413	75000	室外
4	3	麗寶樂園渡假區	臺中市	后里區	120.69559	24.32302	420000	綜合
5	4	高雄市立美術館	高雄市	鼓山區	120.28655	22.65669	90000	室內
6	5	七星潭風景區	花蓮縣	新城鄉	121.62852	24.03202	14000	室外
7	6	猴硐貓村	新北市	瑞芳區	121.82722	25.08705	90500	室外
8	7	小人國	桃園市	龍潭區	121.18711	24.83195	40000	綜合
9	8	布農部落文化園區	臺東縣	延平鄉	121.09087	22.90565	8000	綜合
10	9	鹿港龍山寺	彰化縣	鹿港鎮	120.435628	24.050383	78000	室內
11	10	清境農場	南投縣	仁愛鄉	121.16263	24.0554	140000	室外

visitors.xlsx

	A	B	C	D	E	F
1	Column1	Date	國立故宮博物院	七股鹽山	麗寶樂園渡假區	高雄市立美術館
2	1	2018/1/1	90271	33785	29732	11880
3	2	2018/2/1	73241	37217	29595	16018
4	3	2018/3/1	95476	11864	165720	14516
5	4	2018/4/1	80370	11774	165265	15891
6	5	2018/5/1	61501	10966	152039	12508
7	6	2018/6/1	49231	34918	60969	7060
8	7	2018/7/1	37191	35867	51465	5420
9	8	2018/8/1	38723	37920	56150	6468
10	9	2018/9/1	182339	11455	163182	31934
11	10	2018/10/1	192151	13441	182742	33852
12	11	2018/11/1	169436	35996	127101	28084
13	12	2018/12/1	167032	34042	30929	30563
14	13	2019/1/1	96344	34445	28737	13122
15	14	2019/2/1	86645	37056	5073	12696
16	15	2019/3/1	87649	9735	142121	10650

These numbers may be incorrect. Only for teaching and learning purpose.

Creating the dashboard for exploring space-time patterns of visitors in tourist spots of Taiwan

Expected Output #1:

<https://weijye.shinyapps.io/midterm/>

R Shiny 觀光景點人流視覺化分析

景點

全部景點

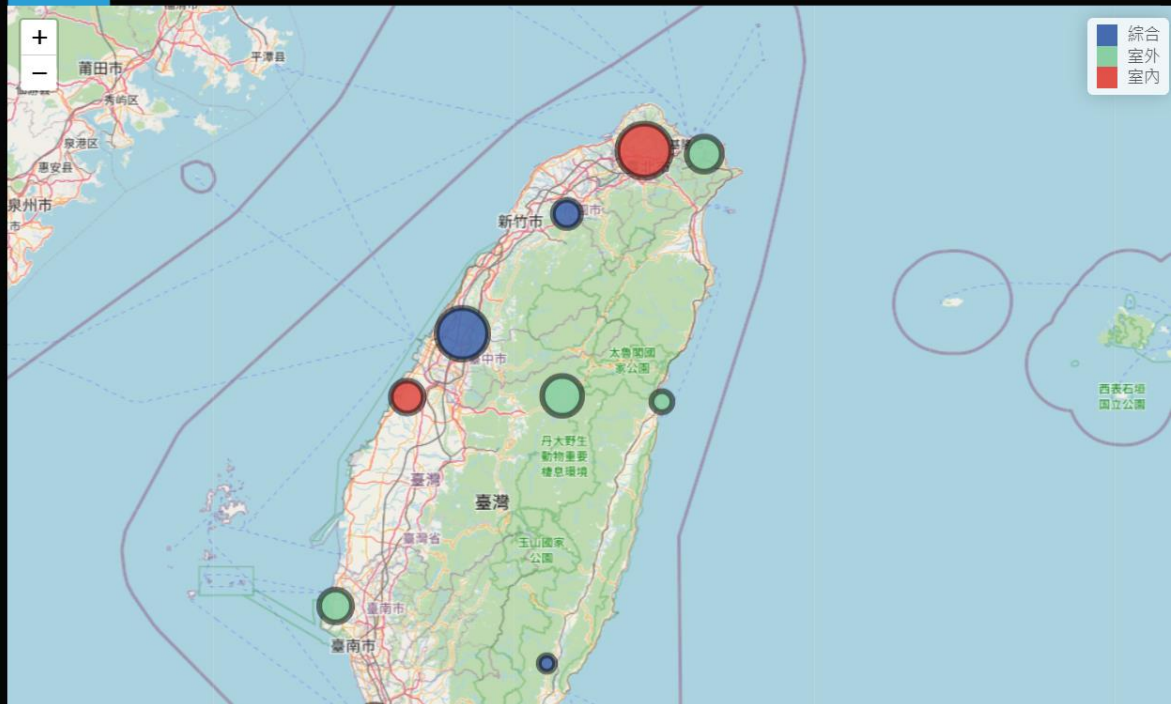
趨勢類型

☒ 長期趨勢 ☐ 季節趨勢

旅客類型

☒ 本國旅客 ☐ 外國旅客

互動地圖 時序比較

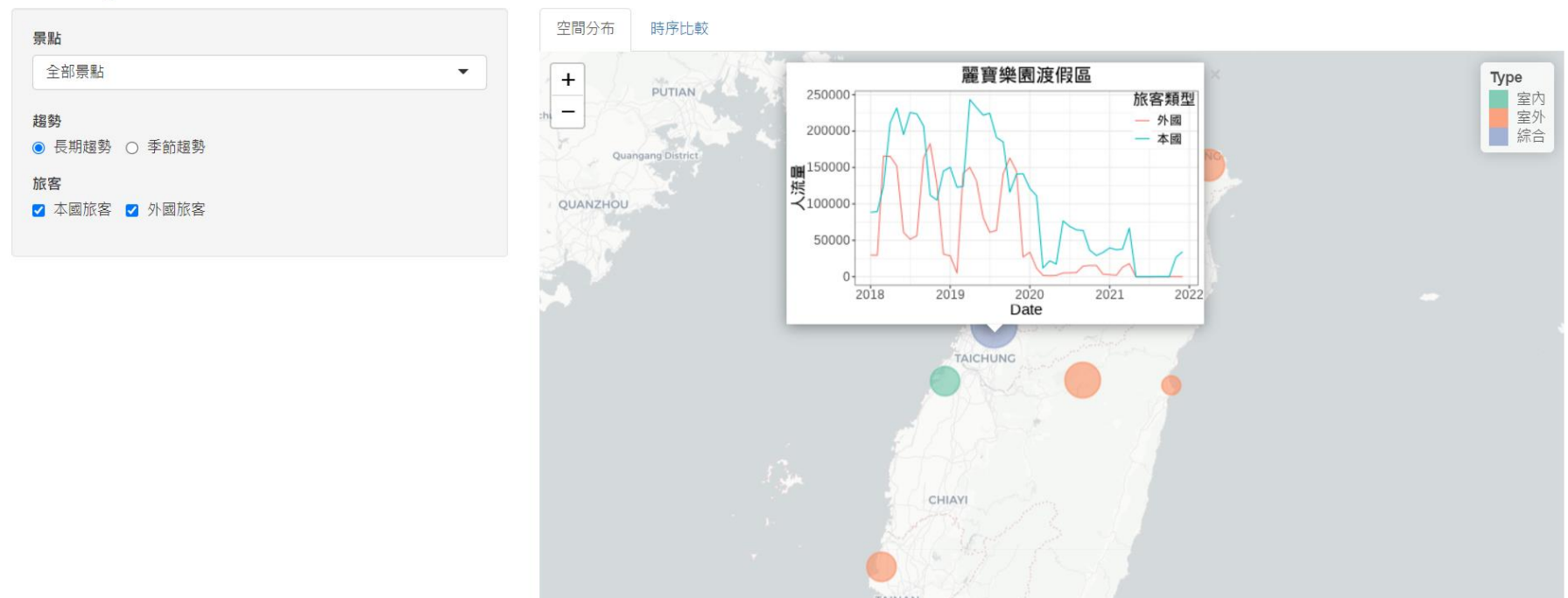


Creating the dashboard for exploring space-time patterns of visitors in tourist spots of Taiwan

Expected Output #2:

<https://huangjinghan.shinyapps.io/midterm/>

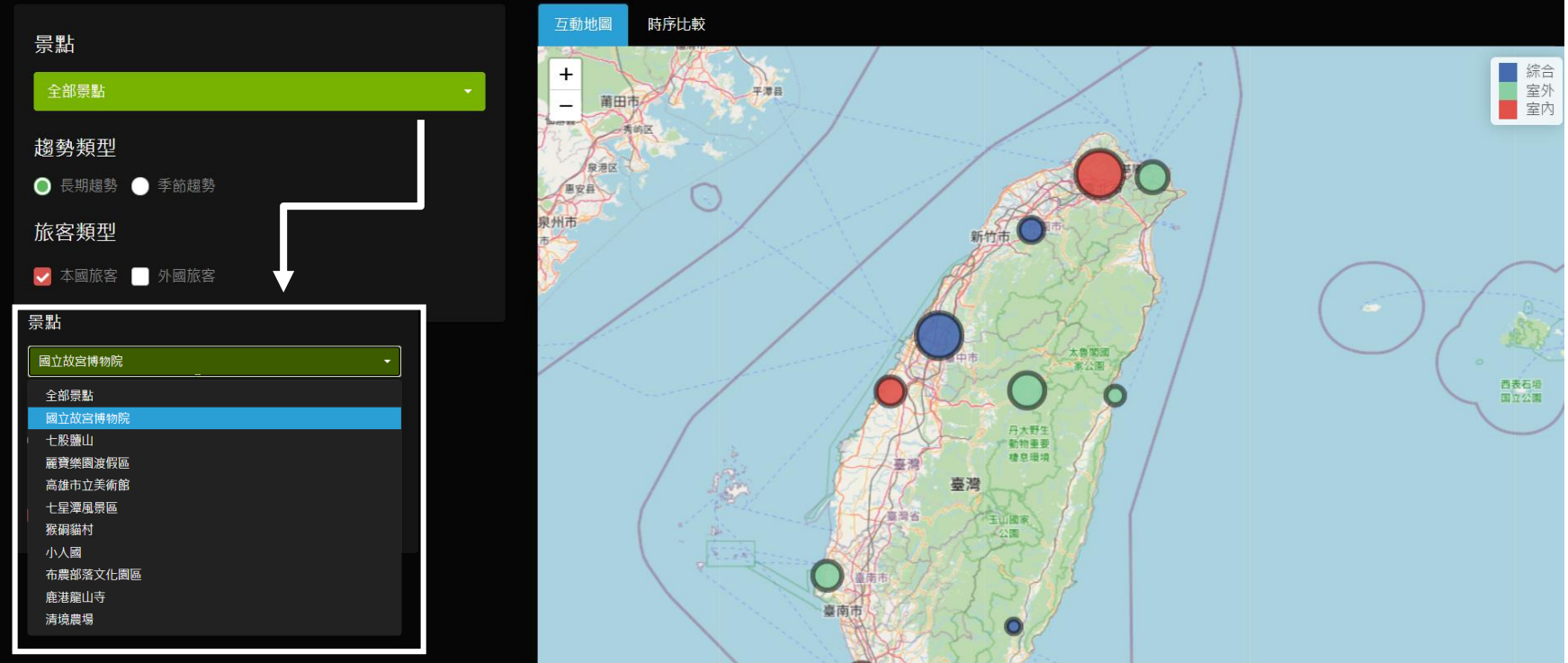
R Shiny 觀光景點人流視覺化分析



Grading Components

Using Shiny for creating fully functional interface:
30 points

R Shiny 觀光景點人流視覺化分析



Grading Components

(using Shiny for connecting between menu and map/graph)

R Shiny 觀光景點人流視覺化分析

景點

七股鹽山

趨勢類型

☒ 長期趨勢 ☐ 季節趨勢

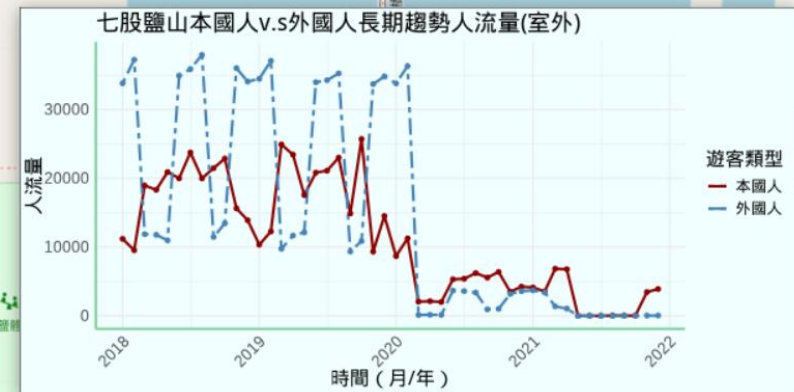
旅客類型

☒ 本國旅客 ☒ 外國旅客

year/month
year/quarter

互動地圖

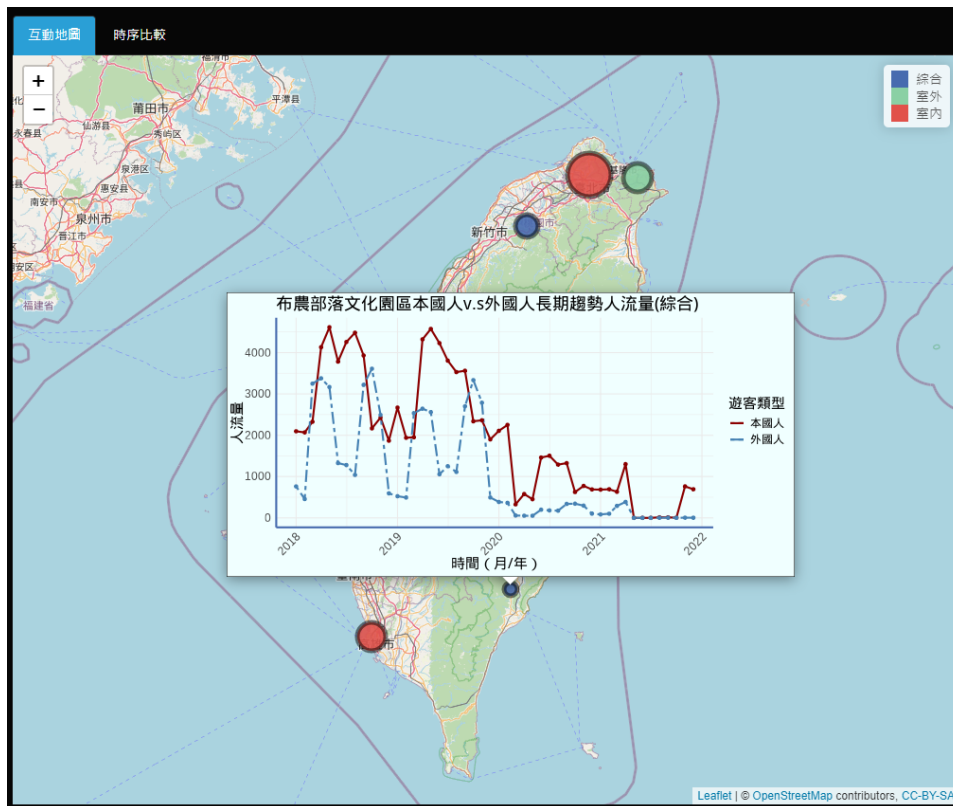
時序比較



Grading Components

Interactive maps: 25 points

1. Types of tourist spots + color/legend
2. Bubble map (based on facility capacity)
3. Pop-up window (time-series graph) [a] year/month + local/foreigners
[b] year/quarter + local/foreigners

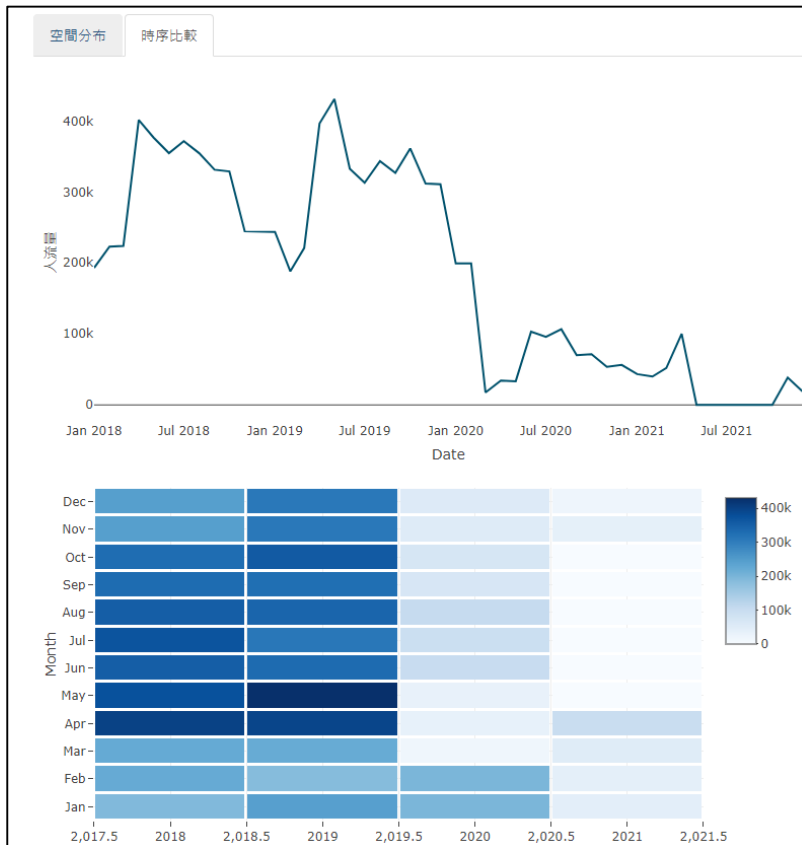


Grading Components

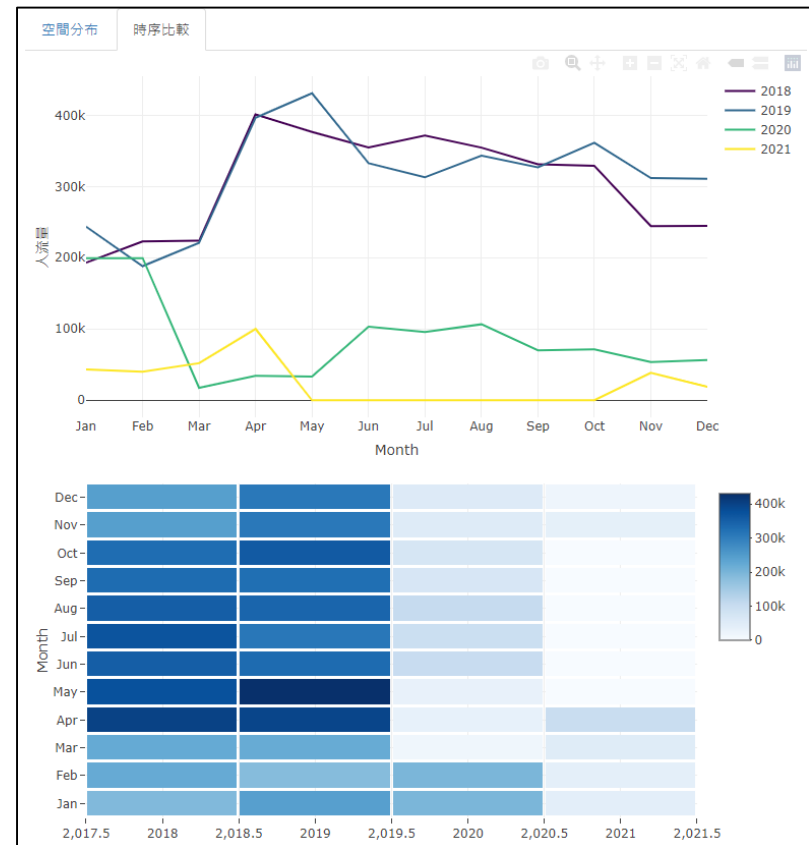
Time-series graphs: 25 points

1. Overall trend
2. Seasonal variation
3. Heat map

Overall trend



Seasonal (monthly) variation



Grading Components

Data exploration report (1-page): 20 points

- The report should include:
 - Summarize space-time patterns of visitors in different types (室内/室外/綜合) of tourist spots
 - Compare the seasonality of visitors in different tourist spots
-