HEALTHY LIFESTYLE CITIES REPORT 2021

Background

•Due to pandemic covid-19, most people think more about healthy lifestyle.
Nowadays keep healthy become most important, most people bought vitamin to keep their stamina

To prevent from sick or got a virus, we need have high immunity . We can get that from many vitamin, vegetables, fruits, etc.

•Due to many technology innovation, some of it have impact pollution. This pollution impact to people who life around the place.

Problems

- we try to analyze about what factors determine the healthy of people in each city we research
- Correlation between life expectancy and healthy people
- Why the healthiest country we can see as benchmark become healthiest country in the world

Demographics

20 Children (0-19yrs)

16 Adults (65 and over)

64 Adults (20-64yrs)

23 are lone parent families
8 of whom live in consistent poverty

51 are female

49 are male

Of people aged over 16:
52 are single
37 are married
6 are widowed
6 are divorced

Who Speaks what Languages

Dia dhuit! ¡Hola!

Irish 36 people
Polish 3 people
French 2 people
Spanish 1 person
German 1 person
Chinese 1 person

51 own and live in their own home
26 rent their home from the private sector
17 rent their home from Cork City Council

Caring

18 people have a disability

4 people are providing unpaid personal help for a friend or family member with a long term illness, health problem or disability.

Diversity

15 people were not born in Ireland

2 people are seeking asylum

10 people are part of the LGBT community

5 people are part of a same-sex marriage

Travellers

Life Expectancy
Traveller men 15 year less than settled men
Traveller women 12 years less than settled women

A Traveller baby in Cork is 4 times more likely to die before it's 1st birthday than a settled baby.

2,637 Bus Éireann buses travel through Cork city daily

18 electoral divisions (EDs) are classified as 'Disadvantaged'
5 EDs are classified as 'Very Disadvantaged'

Lifestyle

23 adults are obese
39 adults are overweight

37 eat at least 5 portions of Fruit & Veg daily

66 adults drink alcohol
58 males & 21 females binge drink

34 adults age 25-34 years old smoke cigarettes

Disease

7 people have suffered from Depression in the

Work & Learning

8 are unemployed
6 are unable to work due to a disability

47 are working

15 are students

14 have Primary education only
16 have Junior Cert only
17 have Leaving Cert only
29 have a Third Level education

Data sources

- Data sources: https://www.kaggle.com/datasets/prasertk/healthy-lifestyle-cities-report-2021

- Content of data source

1.City
2.Rank
3.Sunshine hours(City)
4. Cost of a bottle of water(City)
5. Obesity levels(Country)
6.Life expectancy(years) (Country)
7.Pollution(Index score) (City)
8. Annual avg. hours worked
9. Happiness levels(Country)
10. Outdoor activities(City)
11. Number of take out places(City)
12. Cost of a monthly gym membership(City)

TABEL HEALTHY LIFESTYLLE REPORT 2021

```
healthy=pd.read_csv('healthy_lifestyle_city_2021.csv')
healthy.head()
```

	City	Rank	Sunshine hours(City)	Cost of a bottle of water(City)	Obesity levels(Country)	Life expectancy(years) (Country)	Pollution(Index score) (City)	Annual avg. hours worked	Happiness levels(Country)	Outdoor activities(City)	Number of take out places(City)	membe
0	Amsterdam	1	1858	£1.92	20.40%	81.2	30.93	1434	7.44	422	1048	
1	Sydney	2	2636	£1.48	29.00%	82.1	26.86	1712	7.22	406	1103	
2	Vienna	3	1884	£1.94	20.10%	81.0	17.33	1501	7.29	132	1008	
3	Stockholm	4	1821	£1.72	20.60%	81.8	19.63	1452	7.35	129	598	
4	Copenhagen	5	1630	£2.19	19.70%	79.8	21.24	1380	7.64	154	523	

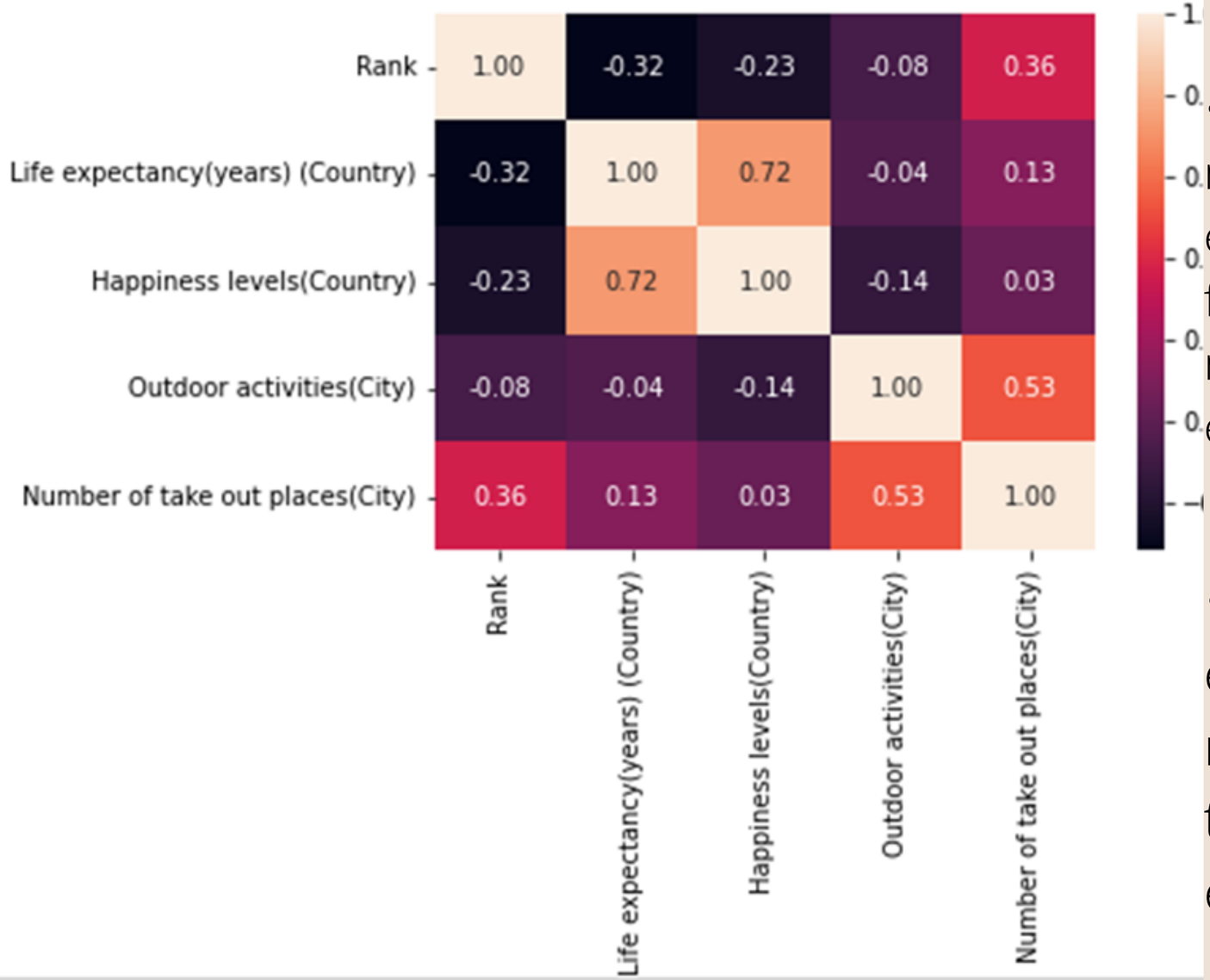
This table show many fvariable about the city like sunshhine hours, obesity level, poluution index, hapiness level, outdoor activity

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 44 entries, 0 to 43
Data columns (total 12 columns):
 #   Column                                Non-Null Count  Dtype  
---  ------                                --------------  -----  
 0   City                                  44 non-null     object 
 1   Rank                                  44 non-null     int64  
 2   Sunshine hours(City)                  44 non-null     object 
 3   Cost of a bottle of water(City)       44 non-null     object 
 4   Obesity levels(Country)               44 non-null     object 
 5   Life expectancy(years) (Country)      44 non-null     float64
 6   Pollution(Index score) (City)         44 non-null     object 
 7   Annual avg. hours worked              44 non-null     object 
 8   Happiness levels(Country)             44 non-null     float64
 9   Outdoor activities(City)              44 non-null     int64  
 10  Number of take out places(City)       44 non-null     int64  
 11  Cost of a monthly gym membership(City)  44 non-null     object 
dtypes: float64(2), int64(3), object(7)
memory usage: 4.2+ KB
```

This table contain 12 column and 44 row

```
sns.heatmap(correlation, annot=True, fmt='.2f')
```

```
<matplotlib.axes._subplots.AxesSubplot at 0x7f47b958cf50>
```



we measure correlation between each variable using heatmap.

- From this correlation map we can see the most highest correlation between life expectancy(years) and happiness level. This 2 features have positive correlation, that means higher happiness level, higher life expectancy(years).

- The lowest negative correlation is life expectancy and ranks city.That meansNo matter where you stayed that have negative correlation with life expectancy.

after we see the high correlation between happiness level and life expectancy

```
[ ]  healthy.groupby(['City']).agg(
         happy_level=('Happiness levels(Country)','median')
     ).reset_index().sort_values('happy_level',ascending=False)
```

	City	happy_level
15	Helsinki	7.80
10	Copenhagen	7.64
43	Zurich	7.56
14	Geneva	7.56
0	Amsterdam	7.44
34	Stockholm	7.35
41	Vienna	7.29
39	Toronto	7.23
40	Vancouver	7.23
35	Sydney	7.22
23	Melbourne	7.22

The Three top happiest level is Helsinki.
Copenhagen
Zurich

```
healthy.groupby(['City']).agg(
    life_expect=('Life expectancy(years) (Country)','median')
).reset_index().sort_values('life_expect',ascending=False)
```

	City	life_expect
13	Fukuoka	83.2
38	Tokyo	83.2
25	Milan	82.7
43	Zurich	82.6
14	Geneva	82.6
22	Madrid	82.2
2	Barcelona	82.2
23	Melbourne	82.1
35	Sydney	82.1
37	Tel Aviv	81.9

The three top city have highest life expect is Fukuoka, Tokyo, Milan

Conclusion

- When we grouping happiness level and life expectancy , these 2 tabel show different country.
- We note that happiness have effect on life expectancy and many factors influence the life expectancy.