The Battle of Neighborhoods

West Berlin VS. East Berlin

Project to obtain Data science professional Certificate

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1 Introduction

1.1 Berlin after the WWII

By the end of the second WWII in year 1945 Berlin the Capital city of Germany Suffered a severe destruction, up to one fifth of the suburbs and 50% of the inner city was already destroyed by the war act. additionally, the infrastructures as well as the economical structure was heavily damaged. The city was also divided to four Sectors by the Allies under the London Protocol of 1944, as shown in Figure 1 .

The areas under the allegiance control will be joined together to form what called west Berlin, and the area under the control of the soviet Union will be the Ear Berlin. Berlin's unique situation as a city half-controlled by Western forces in the middle of the Soviet Occupation Zone of Germany made it a natural focal point in the Cold War after 1947.Initially the City of Berlin supposed to be govern by a council of the Four countries that control the city, an the leadership of his council will be rotated between them. However, the soviet Union dropped from this council and start to govern their side, hence east Berlin.
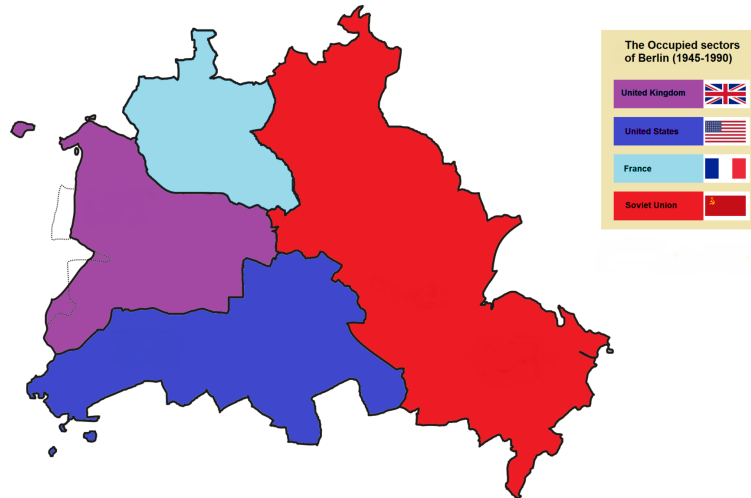

Figure 1: Allied occupation in Berlin (1945-1990)

1.2 The wall of Berlin

The wall of Berlin (1961-1989) which divided the city into two independent parts make the development of the both intellectual and economical life diverse from one part to the other. Furthermore, the intensive soviet and western interference in the two sides of the city and the fact that Berlin was a fight ground of the cultural war between the west and east world at that time, lead to a huge gap in all life aspects between east and west Berlin. However, after the fall of the Berlin wall On 9 November 1989 and the reunification of Berlin those differences between the two parts of the city start to faint with time.

2 Methods

2.1 The Question

In this project, the analysis of each neighborhood in Berlin will be used to determine the similarity level between neighborhoods and try to inspect if the old division of the west and east Berlin is still present till the day.
The suggested way to accomplish this analysis is to take a focused look at the businesses distribution in each borough as well as the cultural buildings like theaters, opera houses, museums, etc. and cluster the neighborhood to see the similarities of them. is the East and west Berlin boroughs become similar or there is still difference to be notice?

2.2 The target audience

People who are interested in the modern German history after the WWII as well as people who are interested in the development of the Germany society. This understanding of the reference venous of each borough in Berlin and what are the most successful business in those areas, will also indicate the most successful type of business to be open in each borough.

2.3   The Data Sources

The list of the neighborhoods from the once called east and west Berline will be obtained from the Wikipedia website the following pages Wikipedia page for west Berlin and Wikipedia page for east Berlin and Wikipedia page for Boroughs and neighborhoods of Berlin or alternative to Wikipedia is the statistical report of of Berlin.Figure 2 shows a map of the city berline with the respective neighborhood in the west and east Berlin. Figure 3 shows an example of the table of the boroughs of Berlin which will be extract using the Beautiful soup package in Python.

Figure 2: Allied occupation in Berlin (1945-1990).

Borough ⬍	Population 31 March 2010 ⬍	Area in km² ⬍	Density per km² ⬍
Charlottenburg-Wilmersdorf	319,628	64.72	4,878
Friedrichshain-Kreuzberg	268,225	20.16	13,187
Lichtenberg	259,881	52.29	4,952
Marzahn-Hellersdorf	248,264	61.74	4,046
Mitte	332,919	39.47	8,272
Neukölln	310,283	44.93	6,804
Pankow	366,441	103.01	3,476
Reinickendorf	240,454	89.46	2,712
Spandau	223,962	91.91	2,441
Steglitz-Zehlendorf	293,989	102.50	2,818
Tempelhof-Schöneberg	335,060	53.09	6,256
Treptow-Köpenick	241,335	168.42	1,406

Figure 3: Table of boroughs in Berline from Wikipidia

Using the website nominatim.openstreetmap.org to extract the boundaries of each borough and the website polygons.openstreetmap.frto save the polygons and JSON files. Following the Foursquare developer account will be used to retrieve all the venues in each borough. Finally utilizing the K-Mean cluster analyses this data will be analyzed. and the results will shows if people in east Berlin have a similar favorite venous like in west Berlin or not, and does the boroughs from each side of Berlin have and distinct similarities.