INTRODUCTION

1 Background

Sao Paulo is the biggest Brazilian city and our main finnancial center, being considered by the Globalization and World Cities Research Network (GaWC) as an "alpha city" and a "highly sufficient city" in the classification for 2018 [1]. Accordingly to the estimatives for 2019, it had more then 12 million inhabitants in the main city, reaching almost 22 million inhabitants when the whole metropolitan region was considered [2]. The city has a wide ethnical and cultural diversty, being home to people born in 196 different countries [3] and attracting workers from all the Brazilian regions.

Due to this wide diversity, it has a plethora of options related to entertainment, like different types of night clubs, restaurants, museums and sports gymnasiums. Also, there are categories of each of these venues that are more common in determinated regions. For example, there are regions where it is easier to find restaurants specialized in Italian or Japanese food, due to the ethnical roots of many people that live there. So, it is advantageous for tourists and newcomers to be informed about the regions that are more related to their personal interests.

2 Problem

The Foursquare API will be used to discover the venues (like restaurants and parks) that exist around the main subway stations in the city of Sao Paulo. The subway stations will be used instead of the neighborhoods because they are simplier to be used by a tourist or newcomer as reference points. They are well documented and the maps of the subway lines that are produced by the city's subway company are cleaner and easier to be understood when compared to more traditional urban maps, as showed in the Figure 1.

The resulting data will be subject to a classification analysis, using a clustering algorithm, resulting in the identification of the regions that are more rich in certains categories of venues. The outcome of the process will be documented and enriched using some unstructured data sources, generating a final product able to help the tourists and newcomers to discover the regions that are more compatible with their specific interests.

3 Target audience

The target audience of this project are people that are coming to Sao Paulo, both as tourists and new residents, and are interested in informations about the regions that are more related to their personal interests in the entertainment area. So, they can enjoy a smoother experience, having more fun in their trip or adaptation to the new city, without having to lose much time to discover interisting places.

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Figure 1: Sample of a map of Sao Paulo subway lines [4].

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