

## APPLIED DATA SCIENCE CAPSTONE

<https://www.coursera.org/learn/applied-data-science-capstone>

### ASSIGNMENT: THE BATTLE OF NEIGHBORHOODS

#### “STARTING A NEW CINEMA IN ATHENS, GREECE

Dimitra Dionysiou

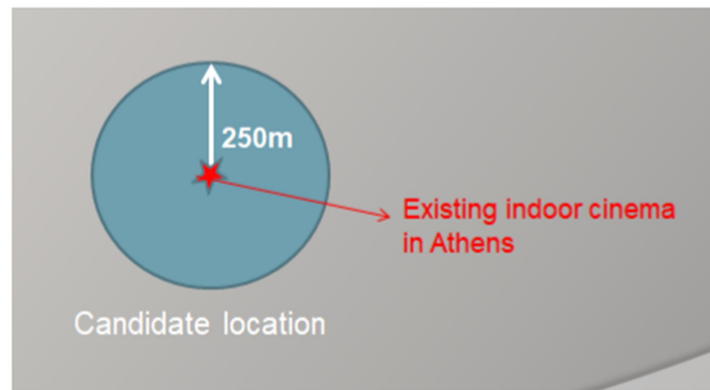
#### 1. Introduction

In this project the **hypothetical scenario of clients who are interested in starting an indoor cinema in Athens, Greece**, is considered. The presented analysis according to the assignment instructions aims mainly at demonstrating the use of Foursquare location data to solve business problems. Obviously, a formal analysis of such an issue would be very complex and multi-parametric and is out of the scope of the presented work. Assuming, therefore, that financial and demographic aspects are not an issue, the presented analysis identifies candidate locations (“catchment areas”) for starting a new cinema based on the **requirements** outlined below:

- **Scale and number of competitor cinemas:** The cinema should be located in an area where other cinema theatres exist as well, so that availability of audience can be generally assumed. More specifically, **a candidate location is defined as a cyclic area, with a radius of 250m, centered on an already existing cinema**. Whereas at least one already existing cinema in the area is a prerequisite, too many cinemas in the vicinity imply that it could be much more difficult for the new business to be competitive and draw audience. Therefore, large multiplexes (with more than 4 screens) with established presence in Athens are excluded from the analysis. Candidate locations which include more than 5 other cinemas in a 500m distance are also excluded.
- **Leisure facilities near the planned cinema:** Since visits to cinemas are usually accompanied by other leisure activities (eating, drinking, shopping etc.), a candidate location should offer many such opportunities in its vicinity. The existence of large shopping malls will be considered as an extra plus.
- **Transport options:** A candidate location should be well served by public transport. Availability of nearby parking areas will be also considered. This aspect of the candidate

locations will be evaluated based on the total number of available metro stations, bus stops and parking places in the area, since all three options will be assumed equally important.

In summary, the question which the following analysis seeks to answer can be formulated as follows: **“In the vicinity (250m cyclic area) of which existing cinema should the new cinema be located based on the specific requirements outlined above?”**



**Figure 1.** Definition of candidate locations for starting a new cinema