

NEW TOURIST OFFICES IN ROME

ABSTRACT. In this report we discuss the optimal placement of five new tourist offices in Rome. These tourist offices will specialize in long guided walking tours of historic sites. Ample funding is available, making differences in rent and housing prices insignificant.

1. INTRODUCTION

1.1. **Background.** Rome, the capital city of Italy, is one of the oldest cities in Europe, with a history spanning more than 2 millennia. It is one of the most visited cities in the world, with millions of tourists coming every year. As capital of the ancient Roman empire, Rome is home to a large number of historic sites.

1.2. **Problem.** The city of Rome is planning to open five new tourist offices in Rome, which specialize in *long* guided walking tours of historic sites. The city is interested in the optimal placement of these five tourist offices.

Ample funding is available, making differences in rent and housing prices insignificant for our purposes. Since these tours are *walking* tours, availability (and quality) of public transport connecting different sights and tourist offices is insignificant for our purposes as well.

The problem then becomes to find five locations, so that each historic site in Rome has low (walking) distance to at least one of the locations.

2. DATA

We use the *Foursquare API* in order to obtain a list of the various historic sites of Rome, including their respective geographic coordinates (latitude and longitude).

Utilizing the haversine formula, we will use the data to compute distances between locations in Rome and various historic sites.

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