Finding the Best Place to Open a New Juku Campus
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1    Introduction

Juku is a kind of private fee-paying school in Japan for children to learn subjects such as maths or English after their regular school hours. In Japan, entrance exams for private junior high schools (7th grade to 9th grade), high schools (10th grade to 12th grade) and universities are tough, especially for higher rank universities. Students study hard to pass these exams in jukus offering supplementary lessons to students as well as their schools.

I work for a juku where instructors teach maths and English to students from 5th grade to 12th grade. We have four campuses in Tokyo now, and we look for places to build new campuses because of the growing number of students. New campuses should be in similar areas to where we work as our business is going well now. In this context, we search for the best place to open a new campus in Tokyo by leveraging location data obtained on the web.

2    Data

We use venues information of Tokyo to find similar places to our campuses. To obtain the info, we firstly convert postal codes of Tokyo fetched from the Japan Post into the geographical coordinate by geocoding (fig. 1). The coordinates are the data for us to gather venues information by an API offered by Foursquare, a location platform service.

| | zip_code | prefecture | city | area | lat | long |
|---|---|---|---|---|---|---|
| 0 | 1020082 | TOKYO TO | CHIYODA KU | ICHIBANCHO | 35.7291 | 139.378 |
| 1 | 1010032 | TOKYO TO | CHIYODA KU | IWAMOTOCHO | 35.6956 | 139.775 |
| 2 | 1010047 | TOKYO TO | CHIYODA KU | UCHIKANDA | 35.691 | 139.767 |
| 3 | 1000011 | TOKYO TO | CHIYODA KU | UCHISAIWAICHO | 35.6694 | 139.755 |
| 4 | 1010044 | TOKYO TO | CHIYODA KU | KAJICHO | 35.6917 | 139.772 |
| ... | ... | ... | ... | ... | ... | ... |
| 1029 | 1001102 | TOKYO TO | MIYAKEJIMA MIYAKE MURA | IZU | 31.9999 | 139.999 |
| 1030 | 1001213 | TOKYO TO | MIYAKEJIMA MIYAKE MURA | OYAMA | 35.7486 | 139.702 |
| 1031 | 1001622 | TOKYO TO | HACHIJOJIMA HACHIJO MACHI | SUEYOSHI | 35.6587 | 139.724 |
| 1032 | 1001623 | TOKYO TO | HACHIJOJIMA HACHIJO MACHI | NAKANOGO | 33.0659 | 139.814 |
| 1033 | 1001511 | TOKYO TO | HACHIJOJIMA HACHIJO MACHI | MITSUNE | 33.1188 | 139.803 |

1034 rows × 6 columns

Figure 1: Screen Shot of the geographical coordinate data.