Applied Data Science Capstone

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Find the best venues for principal video game points.

1. Introduction

Some video games companies have been working in geolocation video games for mobile phones, the principal insight is that the users can see a real map and over the map there are virtual points situated in strategical venues. For take rewards or increase their level, the users have to travel from point to point and implement some action. The first popular video game of this type was Ingress (https://www.ingress.com/), and more recently Pokemon Go (https://www.pokemongo.com/en-us/). Nevertheless, there are many more of these games on the market.

One company's problem is defined venues where they can put enclaves, If they put a enclave in a not popular or unaccessible venue, people can loose the interest in the game. One company's problem is defined venues where they can put enclaves, If they put a enclave in a not popular or unaccessible venue, people can loose the interest in the game. There are two questions to solve: A. How to choose enclaves? B. How to balance the amoung of enclaves in an area?

A. How to choose enclaves? some possible answers:

Most popular venues.

How long people are on a venue.

Places where people have to wait for something, like starbucks or wait for takeout, restaurant, hotels, etc.

If they are accompanied, depending on whether they are with family or friends, they train to play, or they can also get a new user for the game. (Ex. Show a friend the game and earn points).

B. How to balance the amoung of enclaves in an area?, to take in mind:

At large popular area with several establishments, resolve how much the maximum enclaves would be.

Also there has to be enclaves in less populated areas because there would still be some user.

Open spaces should be favoreced, such as parks, monuments, historic spaces, etc.

2. Data

The insight is to implement the same study for all countries around the world. But for this exercise would be enougth only one country or a segment of a country for show an example of how it has to resolve the problem.

In internet I found a dataset from The United Stated. It is simple, accurate and up-to-date database of United States cities and towns. It builts from the ground up using authoritative sources such as the U.S. Geological Survey and U.S. Census Bureau. The simplemap required that the use of the free database in production add the link back to: https://simplemaps.com/data/us-cities

Here is a sample of rows from the database with some commonly used fields:

city	state_id	state_name	county_name	lat	lng	population	age_median	income*	zips
Idaho Falls	ID	Idaho	Bonneville	43.4872	-112.0363	97548	33	49098	83401 83402 83404 83415
Pocatello	ID	Idaho	Bannock	42.8716	-112.4652	71020	31.6	42979	83204 83201 83209 83205 83206
Caldwell	ID	Idaho	Canyon	43.6454	-116.6599	54660	29.7	43269	83607 83605
Twin Falls	ID	Idaho	Twin Falls	42.5648	-114.4617	54455	32.7	46283	83301 83303
Lewiston	ID	Idaho	Nez Perce	46.3934	-116.9934	53436	41	50653	83501
Post Falls	ID	Idaho	Kootenai	47.7203	-116.9396	33290	34	50683	83854 83877
Rexburg	ID	Idaho	Madison	43.8222	-111.7924	29859	23.3	26341	83460 83440

Data use.

Latitud and Longitud: it will be use to explore a geographical location.

Population: it will be compare population of each city with reviews and picture number to calculate participation level.

Zip code: to cluster different exploration, specific type of venues, particular venue, to get trending venues.

Age_media: depending of video game market target, the age is a factor that show us if the video game is going to be succesfull in the area.