Capstone Project Presentation
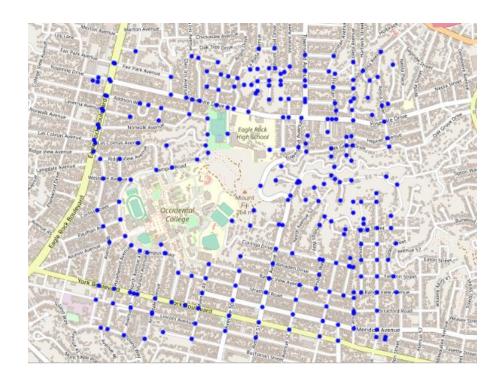
Finding Ice cream shop location

10/11/2019

Initial raw data

OBJECTID	ASSETID	CL_NODE_	X	Y	LAT	LON	TYPE	CRTN_DT	LST_MODI	USER_ID	FROM_ST	TO_ST	TOOLTIP	ZIP_CODE	NLA_URL
3001	98966	52918	6374563	1895188	34.19848	-118.619					VOSE ST	D/E	VOSE ST a	91307	navigatela/reports/intersecti
3002	98967	52920	6374037	1895146	34.19835	-118.621					VICKY AVE	D/E	VICKY AVE	91307	navigatela/reports/intersecti
3003	98968	52924	6364493	1894846	34.19736	-118.652					ST EDENS	D/E	ST EDENS	91307	navigatela/reports/intersecti
3004	98969	52932	6386270	1895673	34.2	-118.58					ENADIA W	D/E	ENADIA W	91306	navigatela/reports/intersecti
3005	98970	52945	6407912	1896310	34.20207	-118.509					CANTLAY S	D/E	CANTLAY S	91406	navigatela/reports/intersecti
3006	98971	52976	6388200	1897522	34.20511	-118.574					GIFFORD	D/E	GIFFORD	91306	navigatela/reports/intersecti
3007	98972	52988	6418380	1897255	34.20481	-118.474					VALERIO S	D/E	VALERIO S	91406	navigatela/reports/intersecti

Map of the normalized raw data and specifying all the intersections

Business categories in each intersection using Foursquare

category	Lat	Lon	Tooltip
Other Great Outdoors	34.132000	-118.208375	OLSON ST at D/E
Other Great Outdoors	34.132000	-118.208375	OLSON ST at D/E
High School	34.132000	-118.208375	OLSON ST at D/E
Flower Shop	34.132000	-118.208375	OLSON ST at D/E
University	34.132000	-118.208375	OLSON ST at D/E
College Residence Hall	34.132000	-118.208375	OLSON ST at D/E
Garden	34.132000	-118.208375	OLSON ST at D/E
Building	34.132000	-118.208375	OLSON ST at D/E
Pool	34.132000	-118.208375	OLSON ST at D/E
High School	34.131084	-118.204020	OAK GROVE DR at D/E

Business categories that are neutral and can be removed from the data shown in red, and example of businesses that are desirable to be close is shown in green

Arcade, Clothing Stores, and Schools are desired (for this assignment)

category	Lat	Lon	Tooltip
Arcade	34.123754	-118.195284	FALLSTON ST at NOLDEN ST
Arcade	34.122168	-118.215020	LINCOLN AVE at HAZELWOOD AVE
Arcade	34.121936	-118.213808	AVENUE 47 at LINCOLN AVE
Clothing Store	34.121545	-118.202390	MERIDIAN ST at AVENUE 52
Clothing Store	34.126663	-118.215736	PAULHAN AVE at AVENUE 46
Clothing Store	34.129442	-118.215717	WESTDALE AVE at AVENUE 46
Clothing Store	34.130981	-118.216422	EAGLE ROCK BLVD at RIDGEVIEW AVE
Clothing Store	34.126083	-118.214175	CAMPUS ROAD at ALUMNI AVE
Clothing Store	34.130562	-118.214557	WOODROW AVE at RIDGEVIEW AVE
Clothing Store	34.120662	-118.202634	YORK BLVD at AVENUE 52
Clothing Store	34.123025	-118.200758	PHILLIPS WAY at RANGE VIEW AVE

Joining two data-frames to eliminate intersections close to existing ice cream shops

7	Clothing Store	34.12608	-118.21417	CAMPUS ROAD at ALUMNI AVE	NaN	NaN
8	Clothing Store	34.13056	-118.21456	WOODROW AVE at RIDGEVIEW AVE	NaN	NaN
9	Clothing Store	34.12066	-118.20263	YORK BLVD at AVENUE 52	Ice Cream Shop	YORK BLVD at AVENUE 52
10	Clothing Store	34.12303	-118.20076	PHILLIPS WAY at RANGE VIEW AVE	NaN	NaN
11	Clothing Store	34.12573	-118.21531	AVENUE 46 at ALUMNI AVE	NaN	NaN
12	Clothing Store	34.12059	-118.20713	LINCOLN AVE at AVENUE 50	NaN	NaN
13	Clothing Store	34.12195	-118.20451	MERIDIAN ST at AVENUE 51	Ice Cream Shop	MERIDIAN ST at AVENUE 51
14	Clothing Store	34.12808	-118.21460	CAMPUS ROAD at CORLISS ST	NaN	NaN
15	Clothing Store	34.12240	-118.20215	STRATFORD ROAD at AVENUE 52	NaN	NaN
16	Clothing Store	34.12236	-118.20664	AVENUE 50 at MERIDIAN ST	NaN	NaN
17	Clothing Store	34.12937	-118.21380	WESTDALE AVE at CAMPUS ROAD	NaN	NaN
18	Clothing Store	34.12940	-118.21455	WESTDALE AVE at WOODROW AVE	NaN	NaN
19	Clothing Store	34.13006	-118.21089	CAMPUS ROAD at ESCARPA DR	NaN	NaN
20	Clothing Store	34.12019	-118.20500	LINCOLN AVE at AVENUE 51	NaN	NaN
21	Clothing Store	34.12759	-118.21616	AVENUE 46 at CORLISS ST	NaN	NaN
22	Elementary School	34.13351	-118.21165	ADDISON WAY at NORTH MAYWOOD AVE	Ice Cream Shop	ADDISON WAY at NORTH MAYWOOD AVE
23	Elementary School	34.12282	-118.19508	RANGE VIEW AVE at NOLDEN ST	NaN	NaN
24	Elementary School	34.13652	-118.20950	MONTIFLORA AVE at GLEN IRIS AVE	NaN	NaN

Joining the desired location to find the best locations having multiple desired locations in one place

Category_X_x	Lat	Lon	tooltip_X_x	Category_X_y	tooltip_X_y
Arcade	34.12375	-118.19528	FALLSTON ST at NOLDEN ST	Elementary School	FALLSTON ST at NOLDEN ST
Elementary School	34.12375	-118.19528	FALLSTON ST at NOLDEN ST	Arcade	FALLSTON ST at NOLDEN ST
Elementary School	34.13652	-118.20950	MONTIFLORA AVE at GLEN IRIS AVE	Nursery School	MONTIFLORA AVE at GLEN IRIS AVE
Elementary School	34.13652	-118.20950	MONTIFLORA AVE at GLEN IRIS AVE	Nursery School	MONTIFLORA AVE at GLEN IRIS AVE
Nursery School	34.13652	-118.20950	MONTIFLORA AVE at GLEN IRIS AVE	Elementary School	MONTIFLORA AVE at GLEN IRIS AVE
Nursery School	34.13652	-118.20950	MONTIFLORA AVE at GLEN IRIS AVE	Elementary School	MONTIFLORA AVE at GLEN IRIS AVE
Elementary School	34.13643	-118.20902	MONTIFLORA AVE at HIGHLAND VIEW AVE	Nursery School	MONTIFLORA AVE at HIGHLAND VIEW AVE

Best locations data-frame and shown on the map

Arcade	34.12375	-118.19528	FALLSTON ST at NOLDEN ST	Elementary School
lementary School	34.13652	-118.20950	MONTIFLORAAVE at GLEN IRIS AVE	Nursery School
lementary School	34.13643	-118.20902	MONTIFLORAAVE at HIGHLAND VIEW AVE	Nursery School
High School	34.13449	-118.20486	ALGOMAAVE at D/E	School
High School	34.13488	-118.20528	LINDA ROSAAVE at D/E	School
High School	34.13438	-118.20498	ALGOMAAVE at D/E	School
High School	34.13486	-118.20582	WARD ST at LINDA ROSAAVE	School
High School	34.13108	-118.20402	OAK GROVE DR at D/E	School
High School	34.13356	-118.20696	YOSEMITE DR at LA RODAAVE	School

FALLSTON ST at NOLDEN ST With Arcade and Elementary School