Assignment #5

DSS and Report Assessment

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#8939083

Information Technology Business Analysis

Conestoga College

INFO8656: Requirements Modeling and Visualization

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Link to the Recording

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Tasks:

1) **Build 3DMaps in Microsoft Excel utilizing section 3.2.1.1. of your course case narrative.**

   a) **The title for your 3D Visualization Map must include your student number and the number of records found in your dataset.**

      i) **For example, if your student number was 1821231 and your filtered dataset included 2,824 records then your title would be: "1821231:2,824 Records - Restaurant Map Promotion."**

8939083: 300 Records – Restaurant Map Promotion

   b) **How you choose to visualize the answer is up to your discretion, you will be providing a written rationale in the next task.**

2) **For submission: Construct a brief written report based on your findings from task 1 (3DMaps) addressing the business objectives as identified in the case.**

   a) **Embed a snippet from your 3D map addressing business objective #1.**

To maximize the likelihood of success for the promotion, the Project Stakeholders will require a visual comparison that illustrates which neighborhood [referenced as 'city' in location data for excel 3DMaps] would be the optimal area to generate brand awareness. The optimal area will be decided based on the total monthly number of all customers in a particular neighborhood among only the participating restaurants.

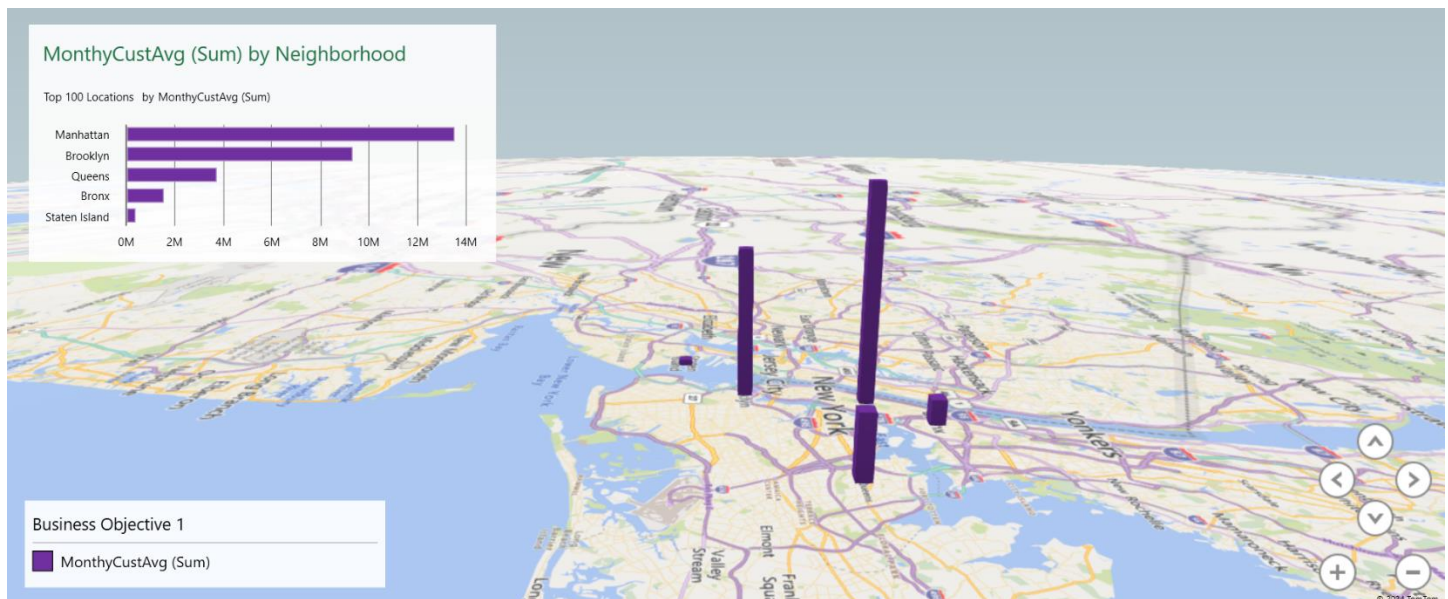## Business Objective#1

According to case study given:

Step 1:

MonthCustAvg = DailyCustAvg * 30

MonthCustAvg is calculated using the formula mentioned above.

From 3D Power map,

- Neighbourhood is used as location.
- Data is being filtered out for column, participating to be "Y".
- Summation of MonthySales is used as values.

It is clear that Manhattan has the maximum number of total customers on monthly basis all customers in a particular neighborhood among only the participating restaurants.

b) Embed a snippet from your 3D map addressing business objective #2.
Using the neighborhood identified in the previous question, create a new visual (or visual layer) which shows the three (3) postal codes [zip codes] that would be the most optimal choices to execute our promotion. [Postal Code Segmentation Analysis]

Business Objective#2

Previously, we decided Manhattan neighborhood would be the most optimal area.

So, here all records have filtered to be "Manhattan" as a neighborhood only.
AND
"Y" in Participating restaurants

For Postal Code Segmentation Analysis:

Custom Sort is applied on filtered data.
Level 1: ComBoard (Smallest to Largest)
Level 2: ZipCodes (Smallest to Largest)

BusinessID	ResName	Neighborhood	BuildingNum	StreetName	ZipCode	PhoneNum	Cuisine	Participating	FitScore	DailyCustAvg	MonthyCust	Latitude	Longitude	ComBoard	CouncilDis
40398586	JOSEPH'S RISTORANTE	Manhattan	3	HANOVER SQUARE	10004	(212) 747-1300	Italian	Y	99	348	10440	40.704801	-74.009623	101	
41143605	BOBBY VAN'S STEAKHOUSE	Manhattan	25	BROAD STREET	10004	(212) 344-8463	Steak	Y	96	342	10260	40.706107	-74.01126	101	
41315113	WHITEHALL BAKERY	Manhattan	4	SOUTH STREET	10004	(212) 742-2788	Café/Coffee/Tea	Y	96	339	10170	40.701688	-74.011631	101	
41212364	BECKETT'S	Manhattan	81	PEARL STREET	10004	(212) 269-1001	American	Y	100	334	10020	40.704016	-74.0102	101	
50086567	GFG BAKERY CAFE	Manhattan	32	BROADWAY	10004	(212) 979-2790	Greek	Y	99	331	9930	40.706038	-74.013096	101	
40754984	SOPHIE'S RESTAURANT	Manhattan	26	BROADWAY	10004	(212) 809-7755	Latin	Y	96	324	9720	40.705673	-74.013302	101	
41633778	UNDERDOG	Manhattan	55	STONE STREET	10004	(917) 409-0251	American	Y	95	312	9360	40.704416	-74.010221	101	
50075485	PEARL STREET HAMPTON INN	Manhattan	32	PEARL STREET	10004	(212) 480-3500	Continental	Y	99	293	8790	40.703228	-74.012421	101	
50032842	RETRO FITNESS	Manhattan	1	NEW YORK PLZ	10004	(646) 667-6635	Juice, Smoothies, Fruit Salads	Y	95	276	8280	40.702533	-74.012562	101	
41501681	SUBWAY	Manhattan	11	BROADWAY	10004	(212) 269-2830	Sandwiches/Salads/Mixed Buffet	Y	95	274	8220	40.705346	-74.013731	101	
50086458	PIZZA PLUS	Manhattan	4	SOUTH STREET	10004	(212) 943-1800	Pizza	Y	98	231	6930	40.701688	-74.011631	101	
50085706	BLACK FOX	Manhattan	85	BROAD STREET	10004	(424) 216-0895	American	Y	95	218	6540	40.704208	-74.011559	101	
41327743	BOMBAY'S	Manhattan	60	PEARL STREET	10004	(212) 742-2222	Indian	Y	99	215	6450	40.703546	-74.011152	101	
50045888	WHITE HORSE TAVERN	Manhattan	25	BRIDGE STREET	10004	(212) 668-9046	American	Y	100	206	6180	40.703584	-74.012533	101	
50045764	AUNTIE ANNE'S/RED MANGO	Manhattan	4	SOUTH STREET	10004	(631) 574-7700	Bagels/Pretzels	Y	95	205	6150	40.701688	-74.011631	101	
50060130	NO. 1 RESTAURANT	Manhattan	10	SOUTH WILLIAM STREET	10004	(212) 952-0890	Chinese	Y	99	193	5790	40.704663	-74.010488	101	
50076290	TORO LOCO	Manhattan	15	STONE STREET	10004	(917) 262-0444	Mexican	Y	98	177	5310	40.704026	-74.012068	101	
50044340	WENDY'S	Manhattan	4	SOUTH STREET	10004	(718) 524-0080	American	Y	98	152	4560	40.701688	-74.011631	101	
50101551	BLACK FOX COFFEE CO	Manhattan	110	WALL STREET	10005	(760) 718-9285	Café/Coffee/Tea	Y	98	349	10470	40.704631	-74.006694	101	
50033451	INDUSTRY KITCHEN	Manhattan	70	SOUTH STREET	10005	(212) 871-5602	American	Y	99	328	9840	40.704872	-74.005313	101	
50097924	DILL & PARSLEY	Manhattan	80	PINE STREET	10005	(646) 688-2226	Mediterranean	Y	97	271	8130	40.705885	-74.007181	101	
50047128	OAXACA TAQUERIA	Manhattan	67	WALL STREET	10005	(212) 232-0035	Mexican	Y	95	250	7500	40.705742	-74.008342	101	
50059422	AL HORNO	Manhattan	110	PEARL STREET	10005	(212) 480-8500	Mexican	Y	100	201	6030	40.704565	-74.009363	101	
50068085	JOE & THE JUICE	Manhattan	67	WALL STREET	10005	(917) 756-3773	Juice, Smoothies, Fruit Salads	Y	98	200	6000	40.705742	-74.008342	101	
50066911	CAFE WATER	Manhattan	130	WATER STREET	10005	(212) 785-1320	American	Y	97	166	4980	40.705514	-74.006929	101	
50081579	BLISS BOWL	Manhattan	89	WASHINGTON STREET	10006	(212) 668-9888	Sandwiches/Salads/Mixed Buffet	Y	99	295	8850	40.708012	-74.014449	101	
50057195	CAT LOUNGE	Manhattan	96	GREENWICH STREET	10006	(917) 327-2832	American	Y	95	263	7890	40.708135	-74.013526	101	
41507901	THE LIVING ROOM	Manhattan	123	WASHINGTON STREET	10006	(646) 826-8640	American	Y	100	243	7290	40.709131	-74.01402	101	
41502172	DUNKIN'	Manhattan	19	RECTOR STREET	10006	(212) 785-8111	Donuts	Y	98	218	6540	40.708127	-74.014128	101	
50094703	SUSPENDERS	Manhattan	108	GREENWICH STREET	10006	(212) 732-5005	American	Y	98	205	6150	40.708492	-74.013374	101	
50091305	TABLE 133 @ COURTYARD WORLD TRADE CENTER	Manhattan	133	GREENWICH STREET	10006	(212) 346-0088	American	Y	97	175	5250	40.709461	-74.012931	101	
41476697	VIEW OF THE WORLD TERRACE CLUB	Manhattan	140	WASHINGTON STREET	10006	(646) 746-3200	American	Y	99	172	5160	40.709722	-74.013818	101	
50039213	MAJESTIC PIZZA	Manhattan	8	CORTLANDT STREET	10007	(212) 349-4046	Pizza/Italian	Y	97	329	9870	40.709988	-74.010388	101	
40855899	FLASHDANCERS GENTLEMEN'S CLUB	Manhattan	59	MURRAY STREET	10007	(212) 227-6912	Other	Y	100	324	9720	40.71424	-74.009804	101	
50007352	RACINES	Manhattan	94	CHAMBERS STREET	10007	(212) 227-3400	French	Y	95	312	9360	40.714641	-74.007362	101	
41168203	BENTO SUSHI	Manhattan	173	BROADWAY	10007	(212) 437-8744	Japanese	Y	100	306	9180	40.709881	-74.00993	101	
41605026	PRET A MANGER	Manhattan	100	CHURCH STREET	10007	(212) 227-3108	American	Y	98	305	9150	40.712961	-74.00949	101	
41597207	MAXWELL'S	Manhattan	59	READE STREET	10007	(917) 261-6917	Irish	Y	98	284	8520	40.714902	-74.006414	101	
50074960	MONK MCGINNS	Manhattan	57	MURRAY STREET	10007	(917) 265-8961	American	Y	100	280	8400	40.714212	-74.009747	101	

From 3D Power Map,

- ZipCode is used as location.
- Data is being filtered out for column, participating to be "Y" AND Neighbourhood to be "Manhattan" AND Count of ComBoard AND Count of ZipCode.
- Distinct Count of BusinessID is used as values.

It is clear that the top 3 ZipCodes on basis of BusinessID are:
10019
10003
10036
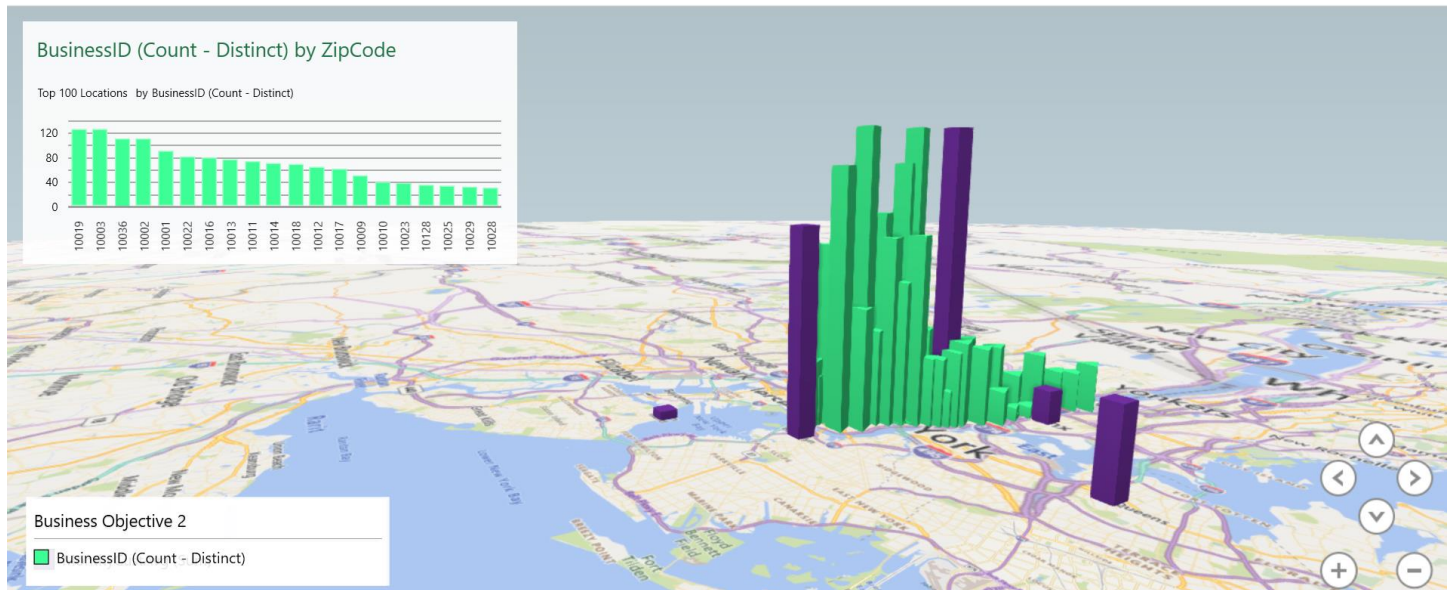
The second layer named, "business Objective 2" above shows that 10019, 10003 and 10036 are three (3) postal codes [zip codes] that would be the most optimal choices to execute our promotion. [Postal Code Segmentation Analysis]

     c) Provide a written explanation for business objective #3.

Calculate total sunk cost for the promotional giveaway campaign based on all participating restaurants identified in business objective #2. [Feasibility Study]

Business Objective#3

From Case Study:

Ashley Prover: "Each restaurant that has agreed to participate will be receiving enough coffee grinds to make 1,500 cups per restaurant at a sunk cost of 0.07 cents per cup.

So,   1500 Cups → 0.07 cents per cup

         MonthySales → ?

SunkCost = (MonthySales/ 1500) * 0.07

R247 f_x =([@MonthySales]/1500)*0.07

BusinessID	ResName	Neighborhood	BuildingNum	ZipCode	PhoneNum	Cuisine	Participating	FitScore	DailyCustAvg	MonthyCustAvg	MonthySales	Latitude	Longitude	ComBoard	SunkCost
50084228	NUTELLA CAFE	Manhattan	116	10003	(212) 675-2475	Café/Coffee/Tea	Y	95	345	10350	2809.285714	40.734439	-73.992358	102	0.1311
50047488	SPICE	Manhattan	39	10003	(212) 982-3758	Thai	Y	98	333	9990	2797.2	40.734395	-73.991932	102	0.130536
50084744	MODERN GOURMET	Manhattan	793	10003	(201) 906-5519	Delicatessen	Y	97	318	9540	2643.942857	40.732089	-73.99138	102	0.123384
50043785	BOWLLIN'	Manhattan	27	10003	(212) 673-2727	Korean	Y	98	315	9450	2646	40.730456	-73.995032	102	0.12348
41629811	STRIP HOUSE	Manhattan	13	10003	(212) 328-0000	Steak	Y	96	309	9270	2542.628571	40.734335	-73.993772	102	0.118656
50051068	BOWERY ROAD	Manhattan	132	10003	(212) 432-1324	American	Y	98	307	9210	2578.8	40.733225	-73.989944	102	0.120344
50070437	& PIZZA	Manhattan	740	10003	(212) 777-2042	Pizza	Y	94	291	8730	2344.628571	40.729877	-73.992993	102	0.109416
50089891	NOMI	Manhattan	74	10003	(646) 568-5186	American	Y	97	281	8430	2336.314286	40.733168	-73.993444	102	0.109028
50099959	NEWSBAR	Manhattan	107	10003	(212) 353-1246	American	Y	97	278	8340	2311.371429	40.734186	-73.992549	102	0.107864
50006260	WHITE OAK TAVERN	Manhattan	21	10003	(212) 260-2604	American	Y	98	277	8310	2326.8	40.73025	-73.994613	102	0.108584
50101850	THE BEAN	Manhattan	771	10003	(212) 228-5020	Café/Coffee/Tea	Y	97	264	7920	2194.971429	40.731249	-73.99186	102	0.102432
41500601	NANOOSH	Manhattan	111	10003	(212) 388-0744	Mediterranean	Y	95	252	7560	2052	40.734307	-73.992444	102	0.09576
41623737	CORKBUZZ WINE STUDIO	Manhattan	13	10003	(646) 873-6071	American	Y	95	251	7530	2043.857143	40.734991	-73.99335	102	0.09538
50017219	OGAWA CAFE	Manhattan	36	10003	(212) 533-6527	Japanese	Y	97	247	7410	2053.628571	40.72742	-73.992261	102	0.095836
50018025	SUBWAY	Manhattan	29	10003	(347) 268-1222	Sandwiches	Y	95	246	7380	2003.142857	40.731521	-73.994606	102	0.09348
41551620	VAPIANO	Manhattan	113	10003	(212) 777-9477	Italian	Y	98	228	6840	1915.2	40.734367	-73.99239	102	0.089376
50017340	NUM PANG	Manhattan	28	10003	(646) 429-9606	Sandwiches	Y	96	227	6810	1867.885714	40.73409	-73.993234	102	0.087168
50097011	BABU JI	Manhattan	22	10003	(212) 951-1082	Indian	Y	95	189	5670	1539	40.734878	-73.993126	102	0.07182
40369521	KNICKERBOCKER BAR & GRILL	Manhattan	33	10003	(212) 228-8490	American	Y	96	183	5490	1505.828571	40.731969	-73.994451	102	0.070272
50101238	FIELDS GOOD CHICKEN	Manhattan	88	10003	(646) 895-6831	Chicken	Y	95	169	5070	1376.142857	40.73361	-73.993065	102	0.06422
41618840	TORTARIA	Manhattan	94	10003	(212) 776-1830	Mexican	Y	98	162	4860	1360.8	40.733742	-73.992957	102	0.063504
50071605	BAAR BAAR	Manhattan	13	10003	(212) 228-1200	Indian	Y	99	346	10380	2936.057143	40.724516	-73.991435	103	0.137016
40948723	PAQUITO'S	Manhattan	143	10003	(212) 674-2071	Mexican	Y	100	342	10260	2931.428571	40.728021	-73.984984	103	0.1368
50085594	BRICKLANE CURRY HOUSE	Manhattan	79	10003	(212) 979-2900	Middle Eastern	Y	100	341	10230	2922.857143	40.726531	-73.98918	103	0.1364
50042698	LE CAFE COFFEE	Manhattan	145	10003	(212) 388-9111	Café/Coffee/Tea	Y	99	335	10050	2842.714286	40.733909	-73.989871	103	0.13266
50073690	SZECHUAN MOUNTAIN HOUSE	Manhattan	23	10003	(917) 388-3866	Chinese	Y	100	329	9870	2820	40.729001	-73.988609	103	0.1316
41298603	THE SMITH	Manhattan	55	10003	(212) 420-9800	American	Y	100	329	9870	2820	40.730988	-73.98884	103	0.1316
40589545	KHYBER PASS	Manhattan	34	10003	(212) 473-0989	Afghan	Y	99	325	9750	2757.857143	40.728765	-73.988104	103	0.1287
50086552	MAKIINNY	Manhattan	32	10003	(212) 673-4610	Thai	Y	100	325	9750	2785.714286	40.728304	-73.988923	103	0.13
41466567	BAR VERDE	Manhattan	65	10003	(212) 777-6965	Latin	Y	99	322	9660	2732.4	40.726034	-73.989548	103	0.127512
50102842	THE GREEN GARDEN RESTAURANT	Manhattan	332	10003	(646) 575-1248	Vegetarian	Y	100	321	9630	2751.428571	40.72879	-73.984677	103	0.1284
50101923	WANYOO CYBER CAFE	Manhattan	4	10003	(212) 863-9989	Café/Coffee/Tea	Y	99	317	9510	2689.971429	40.729355	-73.989479	103	0.125532
41362111	PANNA II GARDEN INDIAN RESTAURANT	Manhattan	93	10003	(212) 598-4610	Indian	Y	99	316	9480	2681.485714	40.724677	-73.986326	103	0.125136
50058073	AL HORNO LEAN MEXICAN KITCHEN	Manhattan	57	10003	(646) 609-3762	Mexican	Y	99	315	9450	2673	40.724911	-73.987254	103	0.12474
41006352	KENKA	Manhattan	25	10003	(212) 254-6363	Japanese	Y	100	315	9450	2700	40.728963	-73.988523	103	0.126
40602670	SOBA-YA	Manhattan	229	10003	(212) 533-6966	Japanese	Y	100	315	9450	2700	40.729624	-73.988256	103	0.126
40395093	COYOTE UGLY	Manhattan	153	10003	(212) 477-4431	American	Y	100	312	9360	2674.285714	40.73025	-73.984677	103	0.1248
41544794	YUBA	Manhattan	105	10003	(212) 777-8188	Japanese	Y	100	312	9360	2674.285714	40.730456	-73.990244	103	0.1248
50100865	JOES STEAM RICE ROLL	Manhattan	36	10003	(646) 604-7734	Chinese	Y	100	309	9270	2648.571429	40.728727	-73.988011	103	0.1236
50088022	Wara	Manhattan	67	10003	(917) 775-5690	Japanese	Y	100	307	9210	2631.428571	40.725328	-73.98695	103	0.1228

The new column SunkCost is calculated using the above formula.

From the pivot table on side, Total sunk cost for the promotional giveaway campaign based on all participating restaurants is 34.40 dollars as identified in business objective #2. [Feasibility Study]

Participating	Y
Neighborhood	Manhattan

Row Labels	Average of MonthyCustAvg	Sum of SunkCost
⊞ 102	7817.142857	2.11164
⊞ 103	7396	7.36404
⊞ 104	7604.845361	9.785
⊞ 105	7535.060241	14.298904
⊞ 106	7728	0.841252
Grand Total	7546.422764	34.400836

PivotTable Fields

Active   All

Choose fields to add to report:

Search

☐ Latitude
☐ Longitude
☑ ComBoard
☐ CouncilDist
☑ SunkCost

Drag fields between areas below:

▼ Filters	‖ Columns
Participating	Σ Values
Neighborhood	

≡ Rows	Σ Values
ComBoard	Average of MonthyC...
ZipCode	Sum of SunkCost

d) Provide a table with all results for business objective #4.

Identify all ComBoard areas that would meet promotional time frame constraints, 1,500 cups of coffee sold within 30 days. Show the ComBoard and cups of coffee projected to be sold, only include results that are in excess of 1,499.

Business Objective#4

Data is further filtered to No. of cups of coffee to be strictly greater than 1499.

BusinessID	ResName	Neighborhood	BuildingNum	ZipCode	PhoneNum	Cuisine	Participating	FitScore	DailyCustAvg	MonthyCust	MonthySales	Latitude
50084228	NUTELLA CAFE	Manhattan	116	10003	(212) 675-2475	Café/Coffee/Tea	Y	95	345	10350	2809.285714	40.734438
50047488	SPICE	Manhattan	39	10003	(212) 982-3758	Thai	Y	98	333	9990	2797.2	40.734394
50084744	MODERN GOURMET	Manhattan	793	10003	(201) 906-5519	Delicatessen	Y	97	318	9540	2643.942857	40.732089
50043785	BOWLLIN'	Manhattan	27	10003	(212) 673-2727	Korean	Y	98	315	9450	2646	40.73045
41629811	STRIP HOUSE	Manhattan	13	10003	(212) 328-0000	Steak	Y	96	309	9270	2542.628571	40.734334
50051068	BOWERY ROAD	Manhattan	132	10003	(212) 432-1324	American	Y	98	307	9210	2578.8	40.733225
50070437	& PIZZA	Manhattan	740	10003	(212) 777-2042	Pizza	Y	94	291	8730	2344.628571	40.729877
50089891	NOM!	Manhattan	74	10003	(646) 568-5186	American	Y	97	281	8430	2336.314286	40.733168
50099959	NEWSBAR	Manhattan	107	10003	(212) 353-1246	American	Y	97	278	8340	2311.371429	40.73418
50006260	WHITE OAK TAVERN	Manhattan	21	10003	(212) 260-2604	American	Y	98	277	8310	2326.8	40.730250
50101850	THE BEAN	Manhattan	771	10003	(212) 228-5020	Café/Coffee/Tea	Y	97	264	7920	2194.971429	40.731249
41500601	NANOOSH	Manhattan	111	10003	(212) 387-0744	Mediterranean	Y	95	252	7560	2052	40.734307
41623737	CORKBUZZ WINE STUDIO	Manhattan	13	10003	(646) 873-6071	American	Y	95	251	7530	2043.857143	40.734990
50017219	OGAWA CAFE	Manhattan	36	10003	(212) 533-6527	Japanese	Y	97	247	7410	2053.628571	40.727420
50018025	SUBWAY	Manhattan	29	10003	(347) 268-1222	Sandwiches	Y	95	246	7380	2003.142857	40.731521
41551620	VAPIANO	Manhattan	113	10003	(212) 777-9477	Italian	Y	98	228	6840	1915.2	40.734367
50017340	NUM PANG	Manhattan	28	10003	(646) 429-9606	Sandwiches	Y	96	227	6810	1867.885714	40.734090
50097011	BABU JI	Manhattan	22	10003	(212) 951-1082	Indian	Y	95	189	5670	1539	40.734878
40369521	KNICKERBOCKER BAR & GRILL	Manhattan	33	10003	(212) 228-8490	American	Y	96	183	5490	1505.828571	40.731968
50071605	BAAR BAAR	Manhattan	13	10003	(212) 228-1200	Indian	Y	99	346	10380	2936.057143	40.724516
40948723	PAQUITO'S	Manhattan	143	10003	(212) 674-2071	Mexican	Y	100	342	10260	2931.428571	40.728020
50085594	BRICKLANE CURRY HOUSE	Manhattan	79	10003	(212) 979-2900	Middle Eastern	Y	100	341	10230	2922.857143	40.726530
50042698	LE CAFE COFFEE	Manhattan	145	10003	(212) 388-9111	Café/Coffee/Tea	Y	99	335	10050	2842.714286	40.733908
50073690	SZECHUAN MOUNTAIN HOUSE	Manhattan	23	10003	(917) 388-3866	Chinese	Y	100	329	9870	2820	40.729001
41298603	THE SMITH	Manhattan	55	10003	(212) 420-9800	American	Y	100	329	9870	2820	40.730988
40589545	KHYBER PASS	Manhattan	34	10003	(212) 473-0989	Afghan	Y	99	325	9750	2757.857143	40.728765
50086552	MAKIINNY	Manhattan	32	10003	(212) 673-4610	Thai	Y	100	325	9750	2785.714286	40.728303
41466567	BAR VERDE	Manhattan	65	10003	(212) 777-6965	Latin	Y	99	322	9660	2732.4	40.726034
50102842	THE GREEN GARDEN RESTAURANT	Manhattan	332	10003	(646) 575-1248	Vegetarian	Y	100	321	9630	2751.428571	40.728789
50101923	WANYOO CYBER CAFE	Manhattan	4	10003	(212) 863-9989	Café/Coffee/Tea	Y	99	317	9510	2689.971429	40.729355

These are ComBoards areas that would meet promotional time frame constraints, 1,500 cups of coffee sold within 30 days. ComBoard and cups of coffee projected to be sold, only include results that are in excess of 1,499.

ComBoards

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103
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105
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i) Indicate which ComBoard is the best location for our promotion.

Best location ComBoard

The following formula is utilized for forecasting the number of cups sold within a one-month (30 day) span for a restaurant.

(Probability of purchase was calculated based on 28.57% of target demographics will opt to purchase a coffee from CBR. A factor of 3.5)
Probability of Purchase = 3.5

Step 1:

For each restaurant in a ComBoard:

Calculate Per restaurant monthly sales = (((FitScore/100) *DailyCustAverage)/ Probabilty of purchase) *30 days)

M2 · ✕ ✓ fx =((([@FitScore]/100)*[@DailyCustAvg])/3.5)*30

BusinessID	ResName	Neighborhood	BuildingNum	StreetName	ZipCode	PhoneNum	Cuisine	Participating	FitScore	DailyCustAvg	MonthyCust.	MonthySales	Latitude	Longitude	ComBoard
40398586	JOSEPH'S RISTORANTE	Manhattan	3	HANOVER SQUARE	10004	(212) 747-1300	Italian	Y	99	348	10440	2953	40.704801	-74.009623	101
41143605	BOBBY VAN'S STEAKHOUSE	Manhattan	25	BROAD STREET	10004	(212) 344-8463	Steak	Y	96	342	10260	2814	40.706107	-74.01126	101
41315113	WHITEHALL BAKERY	Manhattan	4	SOUTH STREET	10004	(212) 742-2788	Café/Coffee/Tea	Y	96	339	10170	2789	40.701688	-74.011631	101
41212364	BECKETT'S	Manhattan	81	PEARL STREET	10004	(212) 269-1001	American	Y	100	334	10020	2863	40.704016	-74.0102	101
50086567	GFG BAKERY CAFE	Manhattan	32	BROADWAY	10004	(212) 979-2790	Greek	Y	99	331	9930	2809	40.706038	-74.013096	101
40754984	SOPHIE'S RESTAURANT	Manhattan	26	BROADWAY	10004	(212) 809-7755	Latin	Y	96	324	9720	2666	40.705673	-74.013302	101
41633778	UNDERDOG	Manhattan	55	STONE STREET	10004	(917) 409-0251	American	Y	95	312	9360	2541	40.704416	-74.010221	101
50075485	PEARL STREET HAMPTON INN	Manhattan	32	PEARL STREET	10004	(212) 480-3500	Continental	Y	99	293	8790	2486	40.703228	-74.012421	101
50032842	RETRO FITNESS	Manhattan	1	NEW YORK PLZ	10004	(646) 667-6635	Juice, Smoothies, Fruit Salads	Y	95	276	8280	2247	40.702533	-74.012562	101
41501681	SUBWAY	Manhattan	11	BROADWAY	10004	(212) 269-2830	Sandwiches/Salads/Mixed Buffet	Y	95	274	8220	2231	40.705346	-74.013731	101
50086458	PIZZA PLUS	Manhattan	4	SOUTH STREET	10004	(212) 943-1800	Pizza	Y	98	231	6930	1940	40.701688	-74.011631	101
50085706	BLACK FOX	Manhattan	85	BROAD STREET	10004	(424) 216-0895	American	Y	95	218	6540	1775	40.704208	-74.011559	101
41327743	BOMBAY'S	Manhattan	60	PEARL STREET	10004	(212) 742-2222	Indian	Y	99	215	6450	1824	40.703546	-74.011152	101
50045888	WHITE HORSE TAVERN	Manhattan	25	BRIDGE STREET	10004	(212) 668-9046	American	Y	100	206	6180	1766	40.703584	-74.012533	101
50045764	AUNTIE ANNE'S/RED MANGO	Manhattan	4	SOUTH STREET	10004	(631) 574-7700	Bagels/Pretzels	Y	95	205	6150	1669	40.701688	-74.011631	101
50060130	NO. 1 RESTAURANT	Manhattan	10	SOUTH WILLIAM STREET	10004	(212) 952-0890	Chinese	Y	99	193	5790	1638	40.704663	-74.010488	101
50076290	TORO LOCO	Manhattan	15	STONE STREET	10004	(917) 262-0444	Mexican	Y	98	177	5310	1487	40.704026	-74.012068	101
50044340	WENDY'S	Manhattan	4	SOUTH STREET	10004	(718) 524-0080	American	Y	98	152	4560	1277	40.701688	-74.011631	101
50101551	BLACK FOX COFFEE CO	Manhattan	110	WALL STREET	10005	(760) 718-9285	Café/Coffee/Tea	Y	98	349	10470	2931.6	40.704631	-74.006694	101
50033451	INDUSTRY KITCHEN	Manhattan	70	SOUTH STREET	10005	(212) 871-5602	American	Y	99	328	9840	2783.314286	40.704872	-74.005313	101
50097924	DILL & PARSLEY	Manhattan	80	PINE STREET	10005	(646) 688-2226	Mediterranean	Y	97	271	8130	2253.171429	40.705885	-74.007181	101
50047128	OAXACA TAQUERIA	Manhattan	67	WALL STREET	10005	(212) 232-0035	Mexican	Y	95	250	7500	2035.714286	40.705742	-74.008342	101
50059422	AL HORNO	Manhattan	110	PEARL STREET	10005	(212) 480-8500	Mexican	Y	100	201	6030	1722.857143	40.704565	-74.009363	101
50068085	JOE & THE JUICE	Manhattan	67	WALL STREET	10005	(917) 756-3773	Juice, Smoothies, Fruit Salads	Y	98	200	6000	1680	40.705742	-74.008342	101
50066911	CAFE WATER	Manhattan	130	WATER STREET	10005	(212) 785-1320	American	Y	97	166	4980	1380.171429	40.705514	-74.006929	101
50081579	BLISS BOWL	Manhattan	89	WASHINGTON STREET	10006	(212) 668-9888	Sandwiches/Salads/Mixed Buffet	Y	99	295	8850	2503.285714	40.708012	-74.014449	101
50057195	CAT LOUNGE	Manhattan	96	GREENWICH STREET	10006	(917) 327-2832	American	Y	95	263	7890	2141.571429	40.708135	-74.013526	101
41507901	THE LIVING ROOM	Manhattan	123	WASHINGTON STREET	10006	(646) 826-8640	American	Y	100	243	7290	2082.857143	40.709131	-74.01402	101
41502172	DUNKIN'	Manhattan	19	RECTOR STREET	10006	(212) 785-8111	Donuts	Y	98	218	6540	1831.2	40.708127	-74.014128	101
50094703	SUSPENDERS	Manhattan	108	GREENWICH STREET	10006	(212) 732-5005	American	Y	98	205	6150	1722	40.708492	-74.013374	101
50091305	TABLE 133 @ COURTYARD WORLD TRADE CENTER	Manhattan	133	GREENWICH STREET	10006	(212) 346-0088	American	Y	97	175	5250	1455	40.709461	-74.012931	101
41476697	VIEW OF THE WORLD TERRACE CLUB	Manhattan	140	WASHINGTON STREET	10006	(646) 746-3200	American	Y	99	172	5160	1459.542857	40.709722	-74.013818	101
50039213	MAJESTIC PIZZA	Manhattan	8	CORTLANDT STREET	10007	(212) 349-4046	Pizza/Italian	Y	97	329	9870	2734	40.710388	-74.007	101
40855899	FLASHDANCERS GENTLEMEN'S CLUB	Manhattan	59	MURRAY STREET	10007	(212) 227-6912	Other	Y	100	324	9720	2777.142857	40.71424	-74.009804	101
50007352	RACINES	Manhattan	94	CHAMBERS STREET	10007	(212) 227-3400	French	Y	95	312	9360	2540.571429	40.714641	-74.007362	101
41168203	BENTO SUSHI	Manhattan	173	BROADWAY	10007	(212) 437-8744	Japanese	Y	100	306	9180	2622.857143	40.709881	-74.00993	101
41605026	PRET A MANGER	Manhattan	100	CHURCH STREET	10007	(212) 227-3108	American	Y	98	305	9150	2562	40.712961	-74.00049	101
41597207	MAXWELL'S	Manhattan	59	READE STREET	10007	(917) 261-6917	Irish	Y	98	284	8520	2385.6	40.714902	-74.006414	101
50074960	MONK MCGINNS	Manhattan	57	MURRAY STREET	10007	(917) 265-8961	American	Y	100	280	8400	2400	40.714212	-74.009747	101

Step 2:

Average the monthly sales of all restaurants within the three postal codes [zipcodes] grouped by ComBoard.

Filtering the data further to ONLY those 3 ZipCodes (10019, 10003 and 10036)

BusinessID	ResName	Neighborhood	BuildingNum	StreetName	ZipCode	PhoneNum	Cuisine	Participating	FitScore	DailyCustAvg	MonthyCust.	MonthySales	Latitude
50084228	NUTELLA CAFE	Manhattan	116	UNIVERSITY PLACE	10003	(212) 675-2475	Café/Coffee/Tea	Y	95	345	10350	2809.285714	40.734439
50047488	SPICE	Manhattan	39	EAST 13 STREET	10003	(212) 982-3758	Thai	Y	98	333	9990	2797.2	40.734395
50084744	MODERN GOURMET	Manhattan	793	BROADWAY	10003	(201) 906-5519	Delicatessen	Y	97	318	9540	2643.942857	40.732089
50043785	BOWLLIN'	Manhattan	27	WAVERLY PLACE	10003	(212) 673-2727	Korean	Y	98	315	9450	2646	40.730456
41629811	STRIP HOUSE	Manhattan	13	EAST 12 STREET	10003	(212) 328-0000	Steak	Y	96	309	9270	2542.628571	40.734335
50051068	BOWERY ROAD	Manhattan	132	4 AVENUE	10003	(212) 432-1324	American	Y	98	307	9210	2578.8	40.733225
50070437	& PIZZA	Manhattan	740	BROADWAY	10003	(212) 777-2042	Pizza	Y	94	291	8730	2344.628571	40.729877
50089891	NOM!	Manhattan	74	UNIVERSITY PLACE	10003	(646) 568-5186	American	Y	97	281	8430	2336.314286	40.733168
50099959	NEWSBAR	Manhattan	107	UNIVERSITY PLACE	10003	(212) 353-1246	American	Y	97	278	8340	2311.371429	40.734186
50006260	WHITE OAK TAVERN	Manhattan	21	WAVERLY PLACE	10003	(212) 260-2604	American	Y	98	277	8310	2326.8	40.73025
50101850	THE BEAN	Manhattan	771	BROADWAY	10003	(212) 228-5020	Café/Coffee/Tea	Y	97	264	7920	2194.971429	40.734307
41500601	NANOOSH	Manhattan	111	UNIVERSITY PLACE	10003	(212) 387-0744	Mediterranean	Y	95	251	7530	2052	40.734307
41623737	CORKBUZZ WINE STUDIO	Manhattan	13	EAST 13 STREET	10003	(646) 873-6071	American	Y	95	251	7530	2043.857143	40.734991
50017219	OGAWA CAFE	Manhattan	36	EAST 4 STREET	10003	(212) 533-6527	Japanese	Y	97	247	7410	2053.628571	40.72742
50018025	SUBWAY	Manhattan	29	EAST 8 STREET	10003	(347) 268-1222	Sandwiches	Y	95	246	7380	2003.142857	40.731521
41551620	VAPIANO	Manhattan	113	UNIVERSITY PLACE	10003	(212) 777-9477	Italian	Y	98	228	6840	1915.2	40.734367
50017340	NUM PANG	Manhattan	28	EAST 12 STREET	10003	(646) 429-9606	Sandwiches	Y	96	227	6810	1867.885714	40.73409
50097011	BABU JI	Manhattan	22	EAST 13 STREET	10003	(212) 951-1082	Indian	Y	95	189	5670	1539	40.734878
40369521	KNICKERBOCKER BAR & GRILL	Manhattan	33	UNIVERSITY PLACE	10003	(212) 228-8490	American	Y	96	183	5490	1505.828571	40.731969
50101238	FIELDS GOOD CHICKEN	Manhattan	88	UNIVERSITY PLACE	10003	(646) 895-6831	Chicken	Y	95	169	5070	1376.142857	40.73361
41618840	TORTARIA	Manhattan	94	UNIVERSITY PLACE	10003	(212) 776-1830	Mexican	Y	98	162	4860	1360.8	40.733742
50071605	BAAR BAAR	Manhattan	13	EAST 1 STREET	10003	(212) 228-1200	Indian	Y	99	346	10380	2936.057143	40.724516
40948723	PAQUITO'S	Manhattan	143	1 AVENUE	10003	(212) 674-2071	Mexican	Y	100	342	10260	2931.428571	40.728021
50085594	BRICKLANE CURRY HOUSE	Manhattan	79	2 AVENUE	10003	(212) 979-2900	Middle Eastern	Y	100	341	10230	2922.857143	40.726531
50042698	LE CAFE COFFEE	Manhattan	145	4 AVENUE	10003	(212) 388-9111	Café/Coffee/Tea	Y	99	335	10050	2842.714286	40.733909
50073690	SZECHUAN MOUNTAIN HOUSE	Manhattan	23	SAINT MARKS PLACE	10003	(917) 388-3866	Chinese	Y	100	329	9870	2820	40.729001
41298603	THE SMITH	Manhattan	55	3 AVENUE	10003	(212) 420-9800	American	Y	100	329	9870	2820	40.730988
40589545	KHYBER PASS	Manhattan	34	ST MARKS PLACE	10003	(212) 473-0989	Afghan	Y	99	325	9750	2757.857143	40.728765
50086552	MAKIINNY	Manhattan	32	EAST 7 STREET	10003	(212) 673-4610	Thai	Y	100	325	9750	2785.714286	40.728304
41466567	BAR VERDE	Manhattan	65	2 AVENUE	10003	(212) 777-6965	Latin	Y	99	322	9660	2732.4	40.726034
50102842	THE GREEN GARDEN RESTAURANT	Manhattan	332	EAST 9 STREET	10003	(646) 575-1248	Vegetarian	Y	100	321	9630	2751.428571	40.72879
50101923	WANYOO CYBER CAFE	Manhattan	4	SAINT MARKS PLACE	10003	(212) 863-9989	Café/Coffee/Tea	Y	99	317	9510	2689.971429	40.729355
41362111	PANNA II GARDEN INDIAN RESTAURANT	Manhattan	93	1 AVENUE	10003	(212) 598-4610	Indian	Y	99	316	9480	2681.485714	40.726177
50058073	AL HORNO LEAN MEXICAN KITCHEN	Manhattan	57	1 AVENUE	10003	(646) 609-3762	Mexican	Y	99	315	9450	2673	40.724911
41006352	KENKA	Manhattan	25	ST MARKS PLACE	10003	(212) 254-6363	Japanese	Y	100	315	9450	2700	40.728963
40602670	SOBA-YA	Manhattan	229	EAST 9 STREET	10003	(212) 533-6966	Japanese	Y	100	315	9450	2700	40.729624
40395093	COYOTE UGLY	Manhattan	153	FIRST AVENUE	10003	(212) 477-4431	American	Y	100	312	9360	2674.285714	40.728441
41544794	YUBA	Manhattan	105	EAST 9 STREET	10003	(212) 777-8188	Japanese	Y	100	312	9360	2674.285714	40.730456
50100865	JOES STEAM RICE ROLL	Manhattan	36	SAINT MARKS PLACE	10003	(646) 604-7734	Chinese	Y	100	309	9270	2648.571429	40.728727
50088022	Wara	Manhattan	67	1 AVENUE	10003	(917) 775-5690	Japanese	Y	100	307	9210	2631.428571	40.725328

Step 3:

Create a table showing the results of all targeted ComBoards, identify which one would be the optimal choice for the campaign.

From the pivot table on side, it is clear that ComBoard number <u>102</u> would be the most optimal choice for the campaign as it has the highest value among all the targeted ComBoards.

Participating	Y	
Neighborhood	Manhattan	
Row Labels	Average of MonthyCustAvg	
⊞ 102	7817.142857	
⊞ 103	7396	
⊞ 104	7604.845361	
⊞ 105	7535.060241	
⊞ 106	7728	
Grand Total	7546.422764	