

MegaMetrix Mart

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Purpose of the Project

- Data analytics solution for business
- Optimize business operations
- Analyze the data of organization
- Sales and marketing insights

Current Marketing and Analysis Domain



Current System



Customer relationship management (CRM) software



Email marketing platforms, and social media advertising platforms



Different tools and technology



Weaknesses of the Current System



Lack of integration among tools



Analysis capabilities

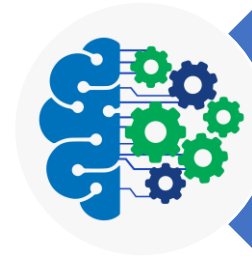


Limited insights

Tools and Technology of Proposed system



Tableau



Algorithm



Python

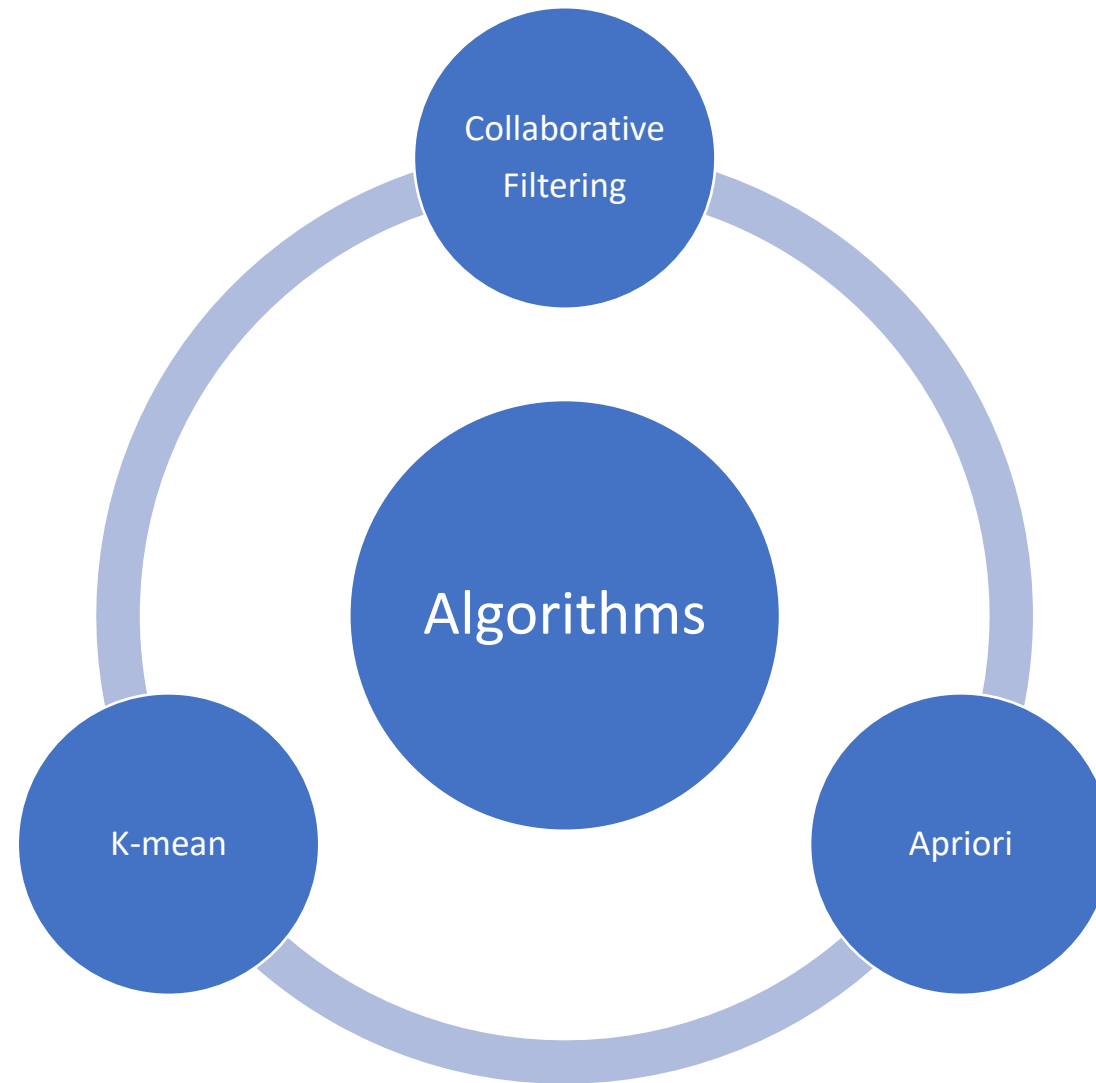


MySQL

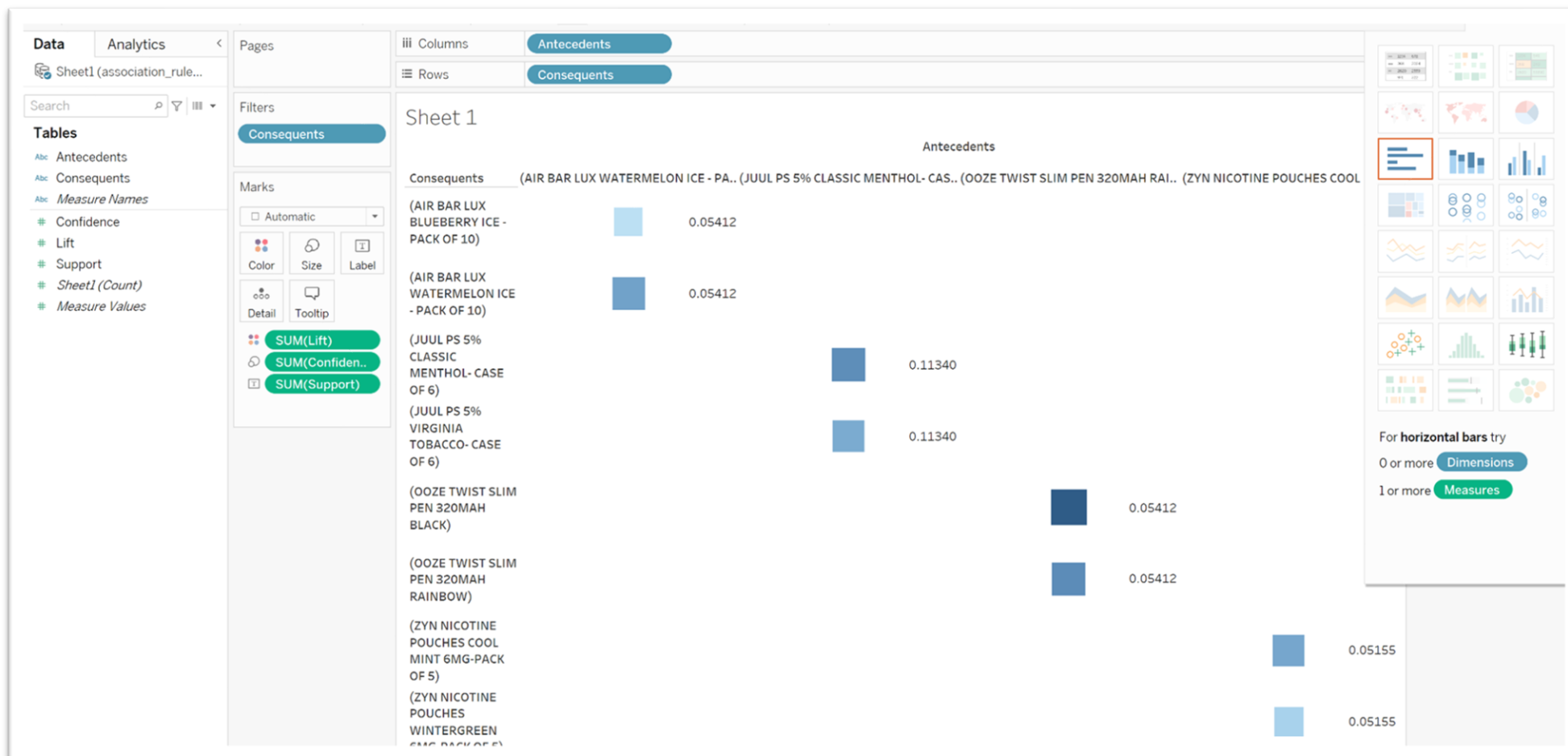


Excel

System Design



Visualization using Tableau



Money-Centric View

- Identifying High-Value Customers
- Targeting High-Value Customers with Personalized Campaigns

	A	B	C	D	E	F	G	H
1	customer				Cluster no.	money-centric view		
2	customer_id	email	mobile	whatsapp	cluster	total_spent	total_days_buy	spend_per_day
4	6599	110HLOUNGE@GMAIL.COM	(508) 904-8250	(508) 904-8250	Cluster 4	53719.13	13	4132.240769
9	6608	-	(914) 673-1121	(914) 673-1121	Cluster 4	52325.78	24	2180.240833
14	6616	TUSHAR9722@GMAIL.COM	(718) 340-9282	(718) 340-9282	Cluster 1	42855.22	13	3296.555385
17	6623	-	(212) 447-0131	(212) 447-0131	Cluster 0	51434.9	49	1049.691837
21	6632	315SIGMA@GMAIL.COM	(516) 371-6213	(516) 371-6213	Cluster 1	45902.24	57	805.3024561
23	6637	360DELINYC@GMAIL.COM	(443) 515-7879	(443) 515-7879	Cluster 6	68772.21	16	4298.263125
24	6640	-	(212) 661-9141	-	Cluster 0	30874.25	35	882.1214286
25	6641	MUNAWAR_2042@YAHOO.COM	(347) 613-8864	(347) 613-8864	Cluster 3	42303.14	8	5287.8925
26	6643	162SMOKESHOP@GMAIL.COM	(647) 247-1473	(647) 247-1473	Cluster 6	277987.14	46	6043.198696
30	6648	-	(718) 200-3092	(718) 200-3092	Cluster 6	39128.89	28	1397.460357
32	6652	moekabir84@gmail.com	(917) 634-4779	-	Cluster 5	56615.52	29	1952.25931
38	6665	ABDOYAHYA143@GMAIL.COM	(347) 285-4075	(347) 285-4075	Cluster 4	76610.4	20	3830.52
43	6680	-	(908) 230-3513	(908) 230-3513	Cluster 2	45373.06	10	4537.306
44	6681	nutansls@gmail.com	(908) 230-3513	-	Cluster 0	81996.68	22	3727.121818
51	6696	SUBJANALI@YAHOO.COM	(917) 463-9338	(917) 463-9338	Cluster 1	80311.6	23	3491.808696
54	6701	JUNAIDBINMAHFOOZ@GMAIL.COM	(347) 925-4492	(347) 925-4492	Cluster 1	109003.44	16	6812.715
57	6707	NOMAIL1252@GMAIL.COM	(347) 653-4647	(347) 653-4647	Cluster 6	32949.95	19	1734.207895
60	6718	JAGRUTI444@YAHOO.COM	(603) 880-7655	(603) 880-7655	Cluster 6	148845.65	14	10631.83214
61	6719	ADNANKASSIM@YAHOO.COM	(718) 381-2220	(718) 381-2220	Cluster 4	35068.47	17	2062.851176

Repetitive Customers Patterns

- Identifying Customers with High Repeat Purchases
- Targeting Repetitive Customers with Relevant Promotions

	F	G	H	I	J	K
1	money-centric view			repetition		
2	total_spent	total_days_buy	spend_per_day	repeat_day	count	repeat_rate
4	53719.13	13	4132.240769	9	19	61.29032258
9	52325.78	24	2180.240833	8	24	64.86486486
14	42855.22	13	3296.555385	17	11	61.11111111
17	51434.9	49	1049.691837	5	35	54.6875
21	45902.24	57	805.3024561	2	77	69.36936937
23	68772.21	16	4298.263125	4	15	62.5
24	30874.25	35	882.1214286	9	18	48.64864865
25	42303.14	8	5287.8925	16	12	66.66666667
26	277987.14	46	6043.198696	4	36	52.17391304
30	39128.89	28	1397.460357	9	17	51.51515152
32	56615.52	29	1952.25931	6	27	57.44680851
38	76610.4	20	3830.52	8	25	64.1025641
43	45373.06	10	4537.306	26	6	50
44	81996.68	22	3727.121818	12	13	54.16666667
51	80311.6	23	3491.808696	9	18	52.94117647
54	109003.44	16	6812.715	11	16	64
57	32949.95	19	1734.207895	14	16	69.56521739
60	148845.65	14	10631.83214	11	17	62.96296296
61	35068.47	17	2062.851176	12	15	55.55555556

Sheet1Sheet2money-centric viewrepetitionno repetitionCluster 0Cluster 1

Recommendation

- Generating Product Recommendations for Customers
- Creating Bundles of Frequently Recommended Products

	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI
1	recommendation using collaborative filtering																		
2	nmenda	nmenda	nmenda	nmenda	nmenda	nmenda	nmenda	nmenda	nmenda	nmenda	nmenda	nmenda	nmenda	nmenda	nmenda	nmenda	nmenda	nmenda	nmenda
4	HAND PIPE	SMOKE AC	BUTANE + GENERAL I	ADULT PIL GRINDERS	JARS/SEAL GLASS PIPE	GLASS ACC	E-CIGARET	MINI TOR	MEDICINE NICOTINE	TRAYS	HHC	HOOKAH (	DETOX + S	E-LIQUID	GLASS CL				
9	HAND PIPE	INCENSE +	SMOKE AC	GENERAL I	ADULT PIL GRINDERS	JARS/SEAL GLASS PIPE	GLASS ACC	MINI TOR	(DRY + WA	MEDICINE NICOTINE	TRAYS	HOOKAH (	E-LIQUID	DETOX + S	HKT	B	GLASS CL		
14	SMOKE AC	GENERAL I	ADULT PIL GRINDERS	JARS/SEAL GLASS PIPE	GLASS ACC	E-CIGARET	MINI TOR	MEDICINE NICOTINE	HHC	TRAYS	BRANDED	DETOX + S	E-LIQUID	HOOKAH (	SALT E-LI	E-LIQUID			
17	ADULT PIL GRINDERS	BUTANE +	JARS/SEAL GLASS PIPE	GLASS ACC	MINI TOR	(DRY + WA	HHC	TRAYS	BRANDED	HOOKAH (	DETOX + S	HKT	B	E-LIQUID	SALT E-LI	GLASS CLE	SCALES	E-LIQUID	
21	INCENSE +	SMOKE AC	GENERAL I	ADULT PIL GRINDERS	BUTANE +	JARS/SEAL GLASS PIPE	GLASS ACC	DRY + WA	MEDICINE	HHC	BRANDED	HOOKAH (	DETOX + S	HKT	B	E-LIQUID	GLASS CLE	E-LIQUID	
23	SMOKE AC	GENERAL I	BUTANE +	GRINDERS	JARS/SEAL GLASS PIPE	GLASS ACC	MINI TOR	MEDICINE NICOTINE	HHC	BRANDED	HOOKAH (	DETOX + S	E-LIQUID	HKT	B	GLASS CLE	SALT E-LI	E-LIQUID	
24	SMOKE AC	ADULT PIL	BUTANE +	GRINDERS	JARS/SEAL GLASS PIPE	GLASS ACC	MINI TOR	(HHC	TRAYS	BRANDED	HOOKAH (	DETOX + S	HKT	B	E-LIQUID	SALT E-LI	GLASS CLE	SCALES	E-LIQUID
25	SMOKE AC	GENERAL I	BUTANE +	GRINDERS	JARS/SEAL GLASS PIPE	GLASS ACC	MINI TOR	(DRY + WA	MEDICINE	HHC	TRAYS	BRANDED	HOOKAH (	HKT	B	E-LIQUID	GLASS CLE	SALT E-LI	SCALES
26	SMOKE AC	GENERAL I	BUTANE +	GRINDERS	JARS/SEAL GLASS PIPE	GLASS ACC	MINI TOR	(DRY + WA	MEDICINE NICOTINE	HHC	TRAYS	BRANDED	HOOKAH (	DETOX + S	E-LIQUID	HKT	B	SALT E-LI	
30	SMOKE AC	GENERAL I	BUTANE +	GRINDERS	JARS/SEAL GLASS PIPE	MINI TOR	(GLASS ACC	DRY + WA	NICOTINE	HHC	TRAYS	BRANDED	HOOKAH (	DETOX + S	HKT	B	E-LIQUID	(GLASS CLE	SCALES
32	SMOKE AC	GENERAL I	ADULT PIL	BUTANE +	GRINDERS	JARS/SEAL GLASS PIPE	GLASS ACC	MINI TOR	(DRY + WA	MEDICINE	HHC	HOOKAH (	DETOX + S	E-LIQUID	HKT	B	GLASS CLE	SALT E-LI	E-LIQUID
38	GENERAL I	BUTANE +	ADULT PIL GRINDERS	JARS/SEAL GLASS PIPE	MINI TOR	(GLASS ACC	DRY + WA	MEDICINE NICOTINE	HHC	TRAYS	BRANDED	HOOKAH (	E-LIQUID	HKT	B	DETOX + S	SALT E-LI		
43	SMOKE AC	GENERAL I	ADULT PIL	BUTANE +	GRINDERS	JARS/SEAL GLASS PIPE	E-CIGARET	GLASS ACC	MINI TOR	(MEDICINE	DRY + WA	NICOTINE	HHC	TRAYS	BRANDED	HOOKAH (	HKT	B	E-LIQUID
44	GENERAL I	ADULT PIL	BUTANE +	GRINDERS	JARS/SEAL GLASS PIPE	GLASS ACC	MEDICINE NICOTINE	HHC	TRAYS	BRANDED	HOOKAH (	DETOX + S	HKT	B	E-LIQUID	GLASS CLE	SALT E-LI	E-LIQUID	
51	INCENSE +	SMOKE AC	GENERAL I	GRINDERS	BUTANE +	JARS/SEAL GLASS PIPE	GLASS ACC	MINI TOR	(DRY + WA	MEDICINE NICOTINE	HHC	BRANDED	DETOX + S	E-LIQUID	SALT E-LI	GLASS CLE	SCALES		
54	GENERAL I	ADULT PIL	BUTANE +	GRINDERS	JARS/SEAL GLASS PIPE	GLASS ACC	MINI TOR	(MEDICINE	DRY + WA	NICOTINE	HHC	TRAYS	BRANDED	HOOKAH (	E-LIQUID	DETOX + S	HKT	B	SALT E-LI
57	GENERAL I	GRINDERS	BUTANE +	JARS/SEAL GLASS PIPE	GLASS ACC	MINI TOR	(DRY + WA	HHC	TRAYS	BRANDED	HOOKAH (	DETOX + S	HKT	B	E-LIQUID	GLASS CLE	SALT E-LI	SCALES	E-LIQUID
60	SMOKE AC	GENERAL I	ADULT PIL	GRINDERS	JARS/SEAL GLASS PIPE	GLASS ACC	MINI TOR	(DRY + WA	MEDICINE	TRAYS	BRANDED	HOOKAH (	DETOX + S	E-LIQUID	HKT	B	GLASS CLE	E-LIQUID	(SCALES
61	HAND PIPE	INCENSE +	SMOKE AC	GENERAL I	ADULT PIL GRINDERS	JARS/SEAL GLASS PIPE	MINI TOR	(GLASS ACC	DRY + WA	MEDICINE NICOTINE	HHC	HOOKAH (	E-LIQUID	DETOX + S	HKT	B	SALT E-LI		

Favorite

- Analyzing Customer Favorites for Product Insights

	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK	BL	BM
1	Favorites																		
2	Favorite	Favorite	Favorite	Favorite	Favorite	Favorite	Favorite	Favorite	Favorite	Favorite	Favorite	Favorite	Favorite	Favorite	Favorite	Favorite	Favorite	Favorite	Favorite
4	HKT	B	SALT E-LIQUID	ZIPPO LIGHTER	E-LIQUID	GLASS	AC GRINDERS	DELTA 8 / TRAYS	E-LIQUID	NICOTINE	BUTANE + E-CIGARET	CBD	EDIBLE	BIG TORCH	INCENSE + GLASS	CLE CIGAR	LIGHTERS	KRATOM	
9	DELTA 8 /	BRANDED	CBD	EDIBLE	ADULT PIL	GRINDERS	510 THRE/JARS/SEAL	TRAYS	BUTANE + SMOKE	AC GLASS	AC HHC	GENERAL	LIGHTERS	E-LIQUID	GLASS	CLE SALT E-LIQUID	HOOKAH (HOOKAH	S	
14	ADULT PIL	GLASS	CLE	HAND PIPE	INCENSE + DISPOSAB	DELTA 8 /	JARS/SEAL	PHONE	AC	BUTANE + ZIPPO	LIGHTER	GLASS	AC ROLLING	P E-CIGARET	E-LIQUID	LIGHTERS	MINI TORCH	GENERAL	BIG TORCH
17	E-CIGARET	INCENSE +	MEDICINE	DELTA 8 /	GENERAL	LIGHTERS													
21	ROLLING P	510 THRE/	E-LIQUID (	DRY + WA	INCENSE + SALT	E-LIQUID	E-CIGARET	THCO	E-LIQUID	KRATOM	E-CIGARET	JARS/SEAL	PHONE	CA	NICOTINE	E-LIQUID /	MEDICINE	CBD	FLOW
23	GRINDERS	DRY + WA	INCENSE +	E-CIGARET	DELTA 8 /	LIGHTERS	CBD	TRAYS	PHONE	AC	SMOKE	AC	ADULT PIL	MEDICINE	HAND PIPE	E-CIGARET	E-CIGARET	GENERAL	CBD
24	ROLLING	P	E-CIGARET	GENERAL	LIGHTERS														
25	ROLLING P	PHONE	AC	GRINDERS	MEDICINE	INCENSE +	GENERAL	DELTA 8 /	KRATOM	DRY + WA	E-CIGARET	GLASS	CLE	WHIP	CRE. HHC	LIGHTERS	TRAYS	WHIP	CRE.
26	E-CIGARET	DELTA 8 /	WHIP	CRE. KRATOM	INCENSE +	LIGHTERS	ZIPPO	LIGHTER	ADULT PIL	WHIP	CRE. MEDICINE	GENERAL	HHC	HKT	HAND PIPE	SMOKE	AC	DETOX + S	E-CIGARET
30	DELTA 8 /	SALT E-LIQUID	KRATOM	HHC	PHONE	CA	E-LIQUID	ROLLING	P	E-CIGARET	THCO	LIGHTERS	MEDICINE	ADULT PIL	THCP	GENERAL	DELTA 8 /	BIG TORCH	SMOKE
32	GENERAL	ROLLING P	MEDICINE	510 THRE/	INCENSE +	PHONE	AC	E-CIGARET	LIGHTERS	WHIP	CRE. SCALES	GRINDERS	HKT	SMOKE	AC	GLASS	PIPE	HHC	WHIP
38	E-LIQUID	E-LIQUID	E-CIGARET	INCENSE +	DELTA 8 /	GLASS	PIPE	BUTANE +	LIGHTERS	HAND PIPE	E-LIQUID (	KRATOM	ZIPPO	LIGHTER	HOOKAH /	HOOKAH (	PHONE	AC	HHC
43																			
44	ROLLING	PAPER +	FILTERS																
51	ROLLING P	GLASS	PIPE	DELTA 8 /	PHONE	AC	ADULT PIL	510 THRE/	LIGHTERS	GRINDERS	E-CIGARET	KRATOM	PHONE	CA	HAND PIPE	BUTANE +	INCENSE +	SMOKE	AC
54	DELTA 8 /	NICOTINE	E-LIQUID	KRATOM	ADULT PIL	CBD	EDIBLE	DRY + WA	E-LIQUID (	BUTANE +	ZIPPO	LIGHTER	INCENSE +	E-CIGARET	HHC	CBD	FLOW	SCALES	GLASS
57	ROLLING P	510 THRE/	ADULT PIL	DELTA 8 /	KRATOM	LIGHTERS	HHC	E-CIGARET	NICOTINE	E-CIGARET	ACCESSORIES								
60	SCALES	GENERAL	HERBAL	N	HAND PIPE	DELTA 8 /	KRATOM	THCO	GRINDERS	DRY + WA	HHC	BUTANE +	JARS/SEAL	E-CIGARET	POCKET	K	ROLLING P	SALT E-LIQUID	SMOKE
61	E-LIQUID	KRATOM	NICOTINE	E-LIQUID (	LIGHTERS	510 THRE/	INCENSE +	HAND PIPE	HOOKAH (	ADULT PIL	GRINDERS	HKT	GLASS	PIPE	DELTA 8 /	BUTANE +	DRY + WA	HOOKAH	SMOKE

Use Case

- The Advanced Analytics Mastersheet
- Targeted Email and SMS Campaigns
- Targeting High Repeat Rate and High Spend Customers
- Analyzing Cluster Characteristics for Targeted Promotions

Conclusion

- Flaws
- Future scope

References

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Thank You