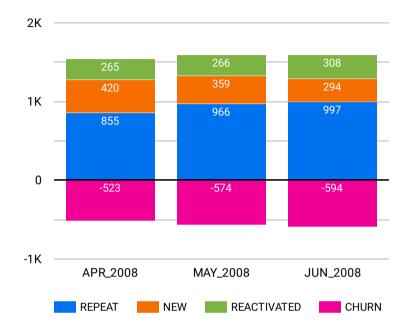
# HW 10: Churn Prediction

#### Note:

- Design for routine monthly review so show only 3 months
  Raw data have only 1 format (cannot group by store\_format)

## Amount of customer base on TYPE



## Customer type history

	CUST_CODE -	JUN_2008	MAY_2008	APR_2008	Total_SPEND
1.	CUST0000000369	REPEAT	REPEAT	REPEAT	160.2
2.	CUST0000000689	REPEAT	REPEAT	REACTIVATED	146
3.	CUST0000001163	NEW	Non	Non	0.5
4.	CUST0000001194	REPEAT	REPEAT	REPEAT	722.7
5.	CUST0000002605	REACTIVATED	CHURN	NEW	0.6
6.	CUST0000002637	CHURN	REPEAT	REPEAT	21.3
7.	CUST0000002813	GONE	CHURN	REPEAT	43.5
8.	CUST0000003028	GONE	GONE	GONE	5.8
9.	CUST0000003252	GONE	CHURN	NEW	2.6
10.	CUST0000003287	CHURN	REACTIVATED	GONE	43

1 - 100 / 3267

## GAP of visiting dashboard

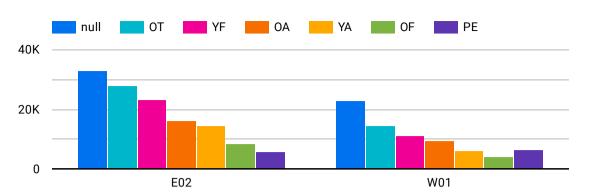
GAP 01	visiting dashboard								
	CUST_CODE -	Total_Spend	Total_Visit	Last_Visiting_ date	GAP visiting_1	GAP visiting_2	GAP visiting_3	GAP visiting_4	GAP visiting_5
1.	CUST0000000369	90.34	24	28 ລີ.ຍ. 2008	2	1	6	6	1
2.	CUST0000000689	84.23	4	23 ລື.ຍ. 2008	23	5	37	37	null
3.	CUST0000001163	0.52	1	22 ໍນ.ຍ. 2008	null	null	null	null	null
4.	CUST0000001194	304.16	12	20 ລື.ຍ. 2008	3	6	4	4	0
5.	CUST0000002605	0.6	2	12 ລີ.ຍ. 2008	49	null	null	null	null
6.	CUST0000002637	19.15	2	30 พ.ค. 2008	46	null	null	null	null
7.	CUST0000002813	8.71	1	12 เม.ย. 2008	null	null	null	null	null
8.	CUST0000003252	2.58	1	4 เม.ย. 2008	null	null	null	null	null
9.	CUST0000003287	1.82	1	10 พ.ค. 2008	null	null	null	null	null
10.	CUST0000004088	126.48	10	29 ລີ.ຍ. 2008	28	0	16	16	1

**NOTE:** Actually, it should range by Total\_SPEND (Range by cust\_code to show color condition)

## Monthly sale summary by region

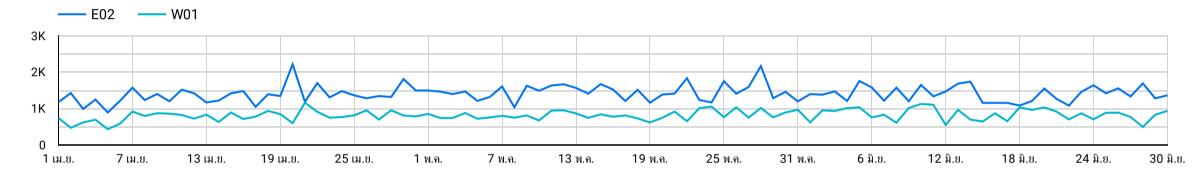
		STORE_RE	GION / SPEND
Month	E02	W01	รวมทั้งหมด
เมษายน	40,855.34	23,328.75	64,184.09
พฤษภาคม	45,347.66	25,534.28	70,881.94
มิถุนายน	42,036.57	25,366.13	67,402.7
รวมทั้งหมด	128,239.57	74,229.16	202,468.73

## Lifestage spending for 3 months



Sale trendency by Store Region

Note: Design for routine monthly review so show only 3 months



## Monthly sale summary by Total sales, Total customer and Total basket

parsed_date 🛧	sales	yoy_sales	num_cust	yoy_customers	num_bask	yoy_baskets
1 เม.ย. 2008	64184.1	-0.02	1540	0.12	5292	-0.03
1 พ.ค. 2008	70881.9	0.07	1591	0.14	5684	0.02
1 ລີ.ຍ. 2008	67402.7	-0.02	1599	0.11	5514	-0.03
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Monthly sale summary by AVG spending/customer, AVG total visiting, avg basket size and avg unit/basket

parsed_date •	AVG Spending per customer	yoy_avg_spending _per_customer	AVG Total visiting	yoy_avg_total_vis its	AVG basket size	yoy_avg_basket_ size	AVG unit per basket	yoy_unit_per_bas ket
1 เม.ย. 2008	41.68	-0.14	3.44	-0.15	12.13	0.01	10.01	-0.03
1 พ.ค. 2008	44.55	0.07	3.57	0.04	12.47	0.03	9.9	-0.01
1 ົນ.ຍ. 2008	42.15	-0.05	3.45	-0.03	12.22	-0.02	9.84	-0.01

## Best selling item

	PROD_CODE	SPEND *
1.	PRD0904358	3,395.7
2.	PRD0900121	1,868.86
3.	PRD0903052	1,759.82
4.	PRD0901265	1,448.64
5.	PRD0904250	1,289.82
6.	PRD0903269	1,231.23
7.	PRD0900324	880.11
8.	PRD0901348	791.04
9.	PRD0901923	787.95
10.	PRD0902503	782.07
11.	PRD0900508	770.4
12.	PRD0903815	769.64
13.	PRD0900830	760.48
14.	PRD0903496	748.88
15.	PRD0904735	729.96
16.	PRD0903074	709.02
17.	PRD0904933	660.54
18.	PRD0904976	636.23
19.	PRD0904962	633.27
20.	PRD0903228	631.9
21.	PRD0903677	628.32
22.	PRD0903377	622.05
23.	PRD0902066	603.72
24.	PRD0900748	578.68
25.	PRD0904723	568.65

## Top 5 Product for Young Family (YF)

	PROD_CODE	USD +
1.	PRD0903269	796.2
2.	PRD0904358	649.9
3.	PRD0901265	299.1
4.	PRD0903052	260.5
5.	PRD0900121	245

## Top 5 Product for Old Family (OF)

	PROD_CODE	USD •
1.	PRD0904358	229.5
2.	PRD0901923	102
3.	PRD0904933	88.3
4.	PRD0901310	87.6
5.	PRD0902129	72.5

### Note:

- Design for routine monthly review so show only 3 months
  Raw data have only 1 format (cannot group by store\_format)

## Top 5 Product for Young Adult (YA)

	PROD_CODE	USD •
1.	PRD0904358	389.6
2.	PRD0903052	197.7
3.	PRD0900121	192.1
4.	PRD0900722	145.2
5.	PRD0903815	130.1

	PROD_CODE	USD ▼
1.	PRD0904358	175.6
2.	PRD0900121	158.8
3.	PRD0903052	142.2
4.	PRD0901265	120.1
5.	PRD0904250	109.6

Top 5 Product for Persioners (PE)

Top 5 Product for Old Adult (OA)

	PROD_CODE	USD +
1.	PRD0904358	389.6
2.	PRD0903052	279.1
3.	PRD0900121	275.4
4.	PRD0904250	261.5
5.	PRD0902503	253.3

Top 5 Product for Others (OT)

	PROD_CODE	USD +
1.	PRD0904358	827
2.	PRD0900121	515.5
3.	PRD0903052	418.7
4.	PRD0901265	339.1
5.	PRD0900324	275.2

## **Action plan**

	CUST_CODE	CENTROID_ID (3 months)	End_JUN_08	GAP_Visiting	Special_New _Year_Gift	Birthday_ Discount	Market_Basket _coupon	1D coupon	Best_Seller_ Discount	CLV
1.	CUST000000181	0. CHURN	GONE	>90	0	0	0	0	1	2.24
2.	CUST0000000369	2. LEGENDARY	REPEAT	2	0	1	1	0	0	397.25
3.	CUST0000000689	1. EPIC	REPEAT	23	0	0	1	0	0	267.95
4.	CUST0000000998	0. CHURN	GONE	>90	0	0	0	0	1	1.26
5.	CUST0000001163	1. EPIC	NEW	0	0	0	1	0	0	17.23
6.	CUST0000001194	2. LEGENDARY	REPEAT	3	0	1	1	0	0	1,004.5
7.	CUST0000002257	0. CHURN	GONE	>90	0	0	0	0	1	1.72
8.	CUST0000002499	0. CHURN	GONE	>90	0	0	0	0	1	1.52
9.	CUST0000002605	1. EPIC	REACTIVATED	49	0	0	1	0	0	11.44
10.	CUST0000002637	1. EPIC	CHURN	46	0	0	1	1	1	62.74

1 - 100 / 6100

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#### NOTE:

- New member have to promote in another way
- Spend stretch by pack (5+1)/Premium Gift and and common discount (app/line) are applied for all

## **CREATING VALUE FROM CLUSTERING RESULTS**

MEMBER	Special New Year Gift	Birthday Discount	Spend Stretch by Discounts (Market Basket)	Special Coupon Discount (1D expired)	New Member Discount	Coupon Discount (Top 5 Best Seller)	Spend Stretch by Pack(5+1) or Premium Gift	Common Discount (app/line)
1. EPIC								
2. LEGENDARY								
3. CELESTIAL								
SHADOW								
GHOST								
0. CHURN								