

## Case Study 2:

### A) Weekly User Engagement

**Query:** select (weekofyear(cast(occured\_at as date))) as WeekofTheYear,  
count(distinct user\_id) as ActiveUsers  
from events  
group by weekofyear(cast(occured\_at as date)) ;



```
86 • select (weekofyear(cast(occured_at as date))) as WeekofTheYear, count(distinct user_id) as ActiveUsers
87 from events
88 group by weekofyear(cast(occured_at as date)) ;
89
90
91
92
93
94
95 #User growth analysis
```

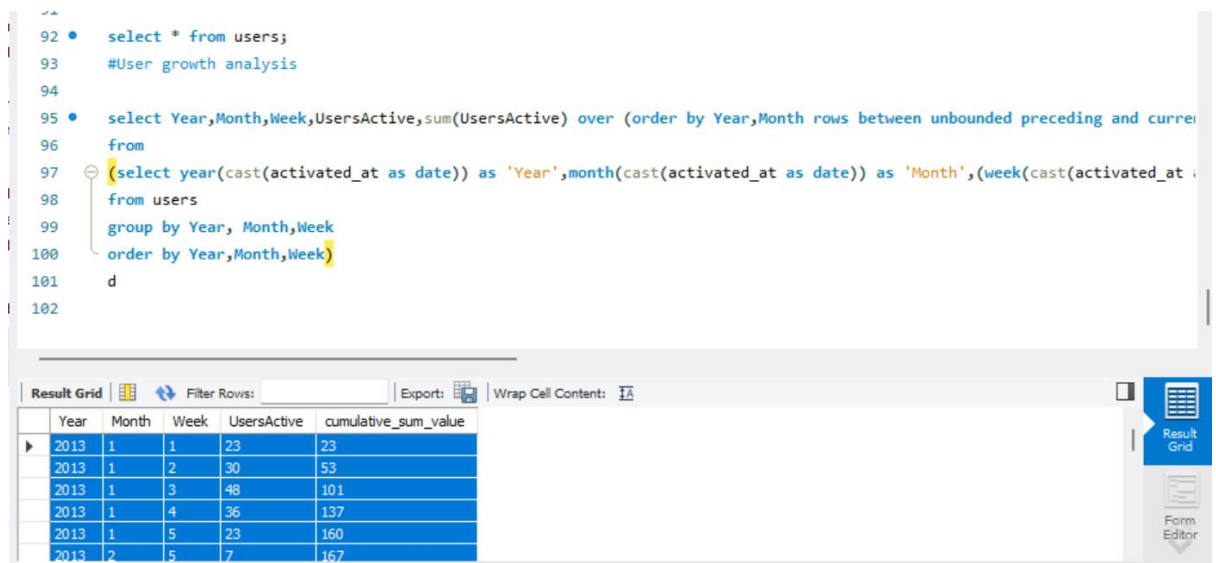
	WeekofTheYear	ActiveUsers
▶	18	701
	19	1054
	20	1094
	21	1147
	22	1113
	23	1173
	24	1219
	25	1263

**output :**

18 701  
19 1054  
20 1094  
21 1147  
22 1113  
23 1173  
24 1219  
25 1263  
26 1249  
27 1271  
28 1355  
29 1345  
30 1363  
31 1443  
32 1266  
33 1215  
34 1203  
35 1194

## B) User Growth Analysis

**Query :** select Year,Month,Week,UsersActive,sum(UsersActive) over (order by Year,Month rows between unbounded preceding and current row ) as cumulative\_sum\_value  
from  
(select year(cast(activated\_at as date)) as 'Year',month(cast(activated\_at as date)) as 'Month',(week(cast(activated\_at as date))+1) as 'Week' , count(distinct user\_id) as UsersActive  
from users  
group by Year, Month,Week  
order by Year,Month,Week)  
d



The screenshot shows a SQL query editor with a query that calculates cumulative user growth. Below the editor is a 'Result Grid' showing the output of the query. The grid has columns for Year, Month, Week, UsersActive, and cumulative\_sum\_value. The data shows a steady increase in users over time, with a jump in the cumulative sum at the end of each month.

Year	Month	Week	UsersActive	cumulative_sum_value
2013	1	1	23	23
2013	1	2	30	53
2013	1	3	48	101
2013	1	4	36	137
2013	1	5	23	160
2013	2	5	7	167

### output:

Year	Month	Week	UsersActive	Cumulative_sum_value
2013	1	1	23	23
2013	1	2	30	53
2013	1	3	48	101
2013	1	4	36	137
2013	1	5	23	160
2013	2	5	7	167
2013	2	6	48	215
2013	2	7	38	253

2013	2	8	42	295
2013	2	9	25	320
2013	3	9	9	329
2013	3	10	43	372
2013	3	11	32	404
2013	3	12	31	435
2013	3	13	33	468
2013	3	14	2	470
2013	4	14	37	507
2013	4	15	35	542
2013	4	16	43	585
2013	4	17	46	631
2013	4	18	20	651
2013	5	18	29	680
2013	5	19	44	724
2013	5	20	57	781
2013	5	21	39	820
2013	5	22	45	865
2013	6	22	4	869
2013	6	23	54	923
2013	6	24	50	973
2013	6	25	45	1018
2013	6	26	57	1075
2013	6	27	3	1078
2013	7	27	53	1131
2013	7	28	52	1183
2013	7	29	72	1255
2013	7	30	67	1322
2013	7	31	40	1362
2013	8	31	27	1389
2013	8	32	67	1456
2013	8	33	71	1527
2013	8	34	73	1600
2013	8	35	78	1678
2013	9	36	63	1741
2013	9	37	72	1813
2013	9	38	85	1898
2013	9	39	90	1988
2013	9	40	20	2008
2013	10	40	64	2072
2013	10	41	87	2159

2013	10	42	73	2232
2013	10	43	99	2331
2013	10	44	67	2398
2013	11	44	22	2420
2013	11	45	96	2516
2013	11	46	91	2607
2013	11	47	88	2695
2013	11	48	102	2797
2013	12	49	97	2894
2013	12	50	116	3010
2013	12	51	124	3134
2013	12	52	102	3236
2013	12	53	47	3283
2014	1	1	83	3366
2014	1	2	126	3492
2014	1	3	109	3601
2014	1	4	113	3714
2014	1	5	121	3835
2014	2	5	9	3844
2014	2	6	133	3977
2014	2	7	135	4112
2014	2	8	125	4237
2014	2	9	123	4360
2014	3	9	6	4366
2014	3	10	133	4499
2014	3	11	154	4653
2014	3	12	130	4783
2014	3	13	148	4931
2014	3	14	44	4975
2014	4	14	123	5098
2014	4	15	162	5260
2014	4	16	164	5424
2014	4	17	179	5603
2014	4	18	98	5701
2014	5	18	72	5773
2014	5	19	163	5936
2014	5	20	185	6121
2014	5	21	176	6297
2014	5	22	183	6480
2014	6	23	196	6676
2014	6	24	196	6872

2014	6	25	229	7101
2014	6	26	207	7308
2014	6	27	45	7353
2014	7	27	156	7509
2014	7	28	222	7731
2014	7	29	215	7946
2014	7	30	221	8167
2014	7	31	183	8350
2014	8	31	55	8405
2014	8	32	193	8598
2014	8	33	245	8843
2014	8	34	261	9104
2014	8	35	259	9363
2014	8	36	18	9381

### C) Weekly Retention analysis

**Query :** with query1 as

```
(select distinct user_id, weekofyear(cast(occured_at as date)) as signup_week
from events
```

```
where event_type='signup_flow' and event_name='complete_signup' and
weekofyear(cast(occured_at as date))=18),
```

query2 as

```
(select distinct user_id, weekofyear(cast(occured_at as date)) as engagement_week
from events
```

```
where event_type='engagement')
```

```
select count(user_id) as totalusers,
```

```
sum(case when retention_week>0 then 1 else 0 end) as users_retained
```

```
from (select q1.user_id, q1.signup_week,q2.engagement_week,q2.engagement_week-
q1.signup_week as retention_week
```

```
from query1 q1 left join query2 q2 on q1.user_id=q2.user_id
```

```
order by q1.user_id)b
```

**output:**

```

3 • with query1 as
4   (select distinct user_id, weekofyear(cast(occured_at as date)) as signup_week
5    from events
6    where event_type='signup_flow' and event_name='complete_signup' and weekofyear(cast(occured_at as date))=18),
7   query2 as
8   (select distinct user_id, weekofyear(cast(occured_at as date)) as engagement_week
9    from events
10   where event_type='engagement')
11   select count(user_id) as totalusers,
12   sum(case when retention_week>0 then 1 else 0 end) as users_retained
13   from (select q1.user_id, q1.signup_week,q2.engagement_week,q2.engagement_week-q1.signup_week as retention_week
14        from query1 q1 left join query2 q2 on q1.user_id=q2.user_id
15        order by q1.user_id)b

```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: |

totalusers	users_retained
317	236

Result Grid  
Form Editor

### D)Weekly Engagement per device

#### Query :

```

select device, year(cast(occured_at as date)) as 'Year',(weekofyear(cast(occured_at as date))) as 'WeekoftheYear', count(distinct user_id) as UsersEngaged
from events
where event_type = 'engagement'
group by 1,2,3
order by 1,2,3

```

```

105
106
107   #D)weekly engagement per device
108
109 • select device, year(cast(occured_at as date)) as 'Year',(week(cast(occured_at as date))+1) as 'WeekoftheYear', count(distinct user_id) as UsersEngaged
110   from events
111   where event_type = 'engagement'
112   group by 1,2,3
113   order by 1,2,3
114

```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: |

device	Year	WeekoftheYear	UsersEngaged
acer aspire notebook	2014	35	63
acer aspire notebook	2014	36	3
amazon fire phone	2014	18	4
amazon fire phone	2014	19	9
amazon fire phone	2014	20	12

Result 34 x Read Only

output:

Device	Year	WeekofYear	UsersEngaged
--------	------	------------	--------------

acer aspire desktop	2014	18	9
acer aspire desktop	2014	19	26
acer aspire desktop	2014	20	23
acer aspire desktop	2014	21	23
acer aspire desktop	2014	22	29
acer aspire desktop	2014	23	25
acer aspire desktop	2014	24	22
acer aspire desktop	2014	25	24
acer aspire desktop	2014	26	28
acer aspire desktop	2014	27	29
acer aspire desktop	2014	28	29
acer aspire desktop	2014	29	30
acer aspire desktop	2014	30	28
acer aspire desktop	2014	31	33
acer aspire desktop	2014	32	31
acer aspire desktop	2014	33	35
acer aspire desktop	2014	34	39
acer aspire desktop	2014	35	30
acer aspire desktop	2014	36	1
acer aspire notebook	2014	18	20
acer aspire notebook	2014	19	33
acer aspire notebook	2014	20	41
acer aspire notebook	2014	21	40
acer aspire notebook	2014	22	47
acer aspire notebook	2014	23	41
acer aspire notebook	2014	24	43
acer aspire notebook	2014	25	40
acer aspire notebook	2014	26	47
acer aspire notebook	2014	27	35
acer aspire notebook	2014	28	49
acer aspire notebook	2014	29	49
acer aspire notebook	2014	30	53
acer aspire notebook	2014	31	60
acer aspire notebook	2014	32	55
acer aspire notebook	2014	33	55
acer aspire notebook	2014	34	46
acer aspire notebook	2014	35	63
acer aspire notebook	2014	36	3
amazon fire phone	2014	18	4
amazon fire phone	2014	19	9
amazon fire phone	2014	20	12

amazon fire phone	2014	21	11
amazon fire phone	2014	22	5
amazon fire phone	2014	23	5
amazon fire phone	2014	24	16
amazon fire phone	2014	25	11
amazon fire phone	2014	26	13
amazon fire phone	2014	27	13
amazon fire phone	2014	28	10
amazon fire phone	2014	29	6
amazon fire phone	2014	30	12
amazon fire phone	2014	31	12
amazon fire phone	2014	32	14
amazon fire phone	2014	33	12
amazon fire phone	2014	34	14
amazon fire phone	2014	35	11
asus chromebook	2014	18	21
asus chromebook	2014	19	42
asus chromebook	2014	20	27
asus chromebook	2014	21	41
asus chromebook	2014	22	38
asus chromebook	2014	23	52
asus chromebook	2014	24	49
asus chromebook	2014	25	43
asus chromebook	2014	26	38
asus chromebook	2014	27	49
asus chromebook	2014	28	52
asus chromebook	2014	29	50
asus chromebook	2014	30	49
asus chromebook	2014	31	56
asus chromebook	2014	32	56
asus chromebook	2014	33	62
asus chromebook	2014	34	49
asus chromebook	2014	35	47
asus chromebook	2014	36	6
dell inspiron desktop	2014	18	18
dell inspiron desktop	2014	19	58
dell inspiron desktop	2014	20	36
dell inspiron desktop	2014	21	52
dell inspiron desktop	2014	22	41
dell inspiron desktop	2014	23	52
dell inspiron desktop	2014	24	53



dell inspiron desktop	2014	25	59
dell inspiron desktop	2014	26	52
dell inspiron desktop	2014	27	60
dell inspiron desktop	2014	28	53
dell inspiron desktop	2014	29	56
dell inspiron desktop	2014	30	54
dell inspiron desktop	2014	31	54
dell inspiron desktop	2014	32	44
dell inspiron desktop	2014	33	57
dell inspiron desktop	2014	34	37
dell inspiron desktop	2014	35	49
dell inspiron desktop	2014	36	1
dell inspiron notebook	2014	18	46
dell inspiron notebook	2014	19	77
dell inspiron notebook	2014	20	83
dell inspiron notebook	2014	21	84
dell inspiron notebook	2014	22	80
dell inspiron notebook	2014	23	92
dell inspiron notebook	2014	24	103
dell inspiron notebook	2014	25	99
dell inspiron notebook	2014	26	105
dell inspiron notebook	2014	27	89
dell inspiron notebook	2014	28	89
dell inspiron notebook	2014	29	103
dell inspiron notebook	2014	30	113
dell inspiron notebook	2014	31	127
dell inspiron notebook	2014	32	113
dell inspiron notebook	2014	33	104
dell inspiron notebook	2014	34	110
dell inspiron notebook	2014	35	105
dell inspiron notebook	2014	36	9
hp pavilion desktop	2014	18	14
hp pavilion desktop	2014	19	37
hp pavilion desktop	2014	20	40
hp pavilion desktop	2014	21	30
hp pavilion desktop	2014	22	44
hp pavilion desktop	2014	23	38
hp pavilion desktop	2014	24	54
hp pavilion desktop	2014	25	56
hp pavilion desktop	2014	26	52
hp pavilion desktop	2014	27	46

hp pavilion desktop	2014	28	56
hp pavilion desktop	2014	29	56
hp pavilion desktop	2014	30	58
hp pavilion desktop	2014	31	42
hp pavilion desktop	2014	32	51
hp pavilion desktop	2014	33	51
hp pavilion desktop	2014	34	38
hp pavilion desktop	2014	35	36
hp pavilion desktop	2014	36	1
htc one	2014	18	16
htc one	2014	19	19
htc one	2014	20	30
htc one	2014	21	29
htc one	2014	22	21
htc one	2014	23	24
htc one	2014	24	20
htc one	2014	25	20
htc one	2014	26	21
htc one	2014	27	23
htc one	2014	28	27
htc one	2014	29	26
htc one	2014	30	31
htc one	2014	31	31
htc one	2014	32	13
htc one	2014	33	18
htc one	2014	34	19
htc one	2014	35	25
htc one	2014	36	2
ipad air	2014	18	27
ipad air	2014	19	52
ipad air	2014	20	55
ipad air	2014	21	59
ipad air	2014	22	51
ipad air	2014	23	58
ipad air	2014	24	41
ipad air	2014	25	57
ipad air	2014	26	57
ipad air	2014	27	56
ipad air	2014	28	55
ipad air	2014	29	54
ipad air	2014	30	52

ipad air	2014	31	70
ipad air	2014	32	55
ipad air	2014	33	48
ipad air	2014	34	40
ipad air	2014	35	39
ipad mini	2014	18	19
ipad mini	2014	19	30
ipad mini	2014	20	36
ipad mini	2014	21	32
ipad mini	2014	22	23
ipad mini	2014	23	34
ipad mini	2014	24	33
ipad mini	2014	25	39
ipad mini	2014	26	30
ipad mini	2014	27	43
ipad mini	2014	28	35
ipad mini	2014	29	35
ipad mini	2014	30	34
ipad mini	2014	31	35
ipad mini	2014	32	27
ipad mini	2014	33	30
ipad mini	2014	34	28
ipad mini	2014	35	25
ipad mini	2014	36	2
iphone 4s	2014	18	21
iphone 4s	2014	19	46
iphone 4s	2014	20	44
iphone 4s	2014	21	55
iphone 4s	2014	22	45
iphone 4s	2014	23	45
iphone 4s	2014	24	53
iphone 4s	2014	25	53
iphone 4s	2014	26	40
iphone 4s	2014	27	50
iphone 4s	2014	28	67
iphone 4s	2014	29	61
iphone 4s	2014	30	60
iphone 4s	2014	31	65
iphone 4s	2014	32	56
iphone 4s	2014	33	34
iphone 4s	2014	34	35

iphone 4s	2014	35	50
iphone 4s	2014	36	6
iphone 5	2014	18	65
iphone 5	2014	19	113
iphone 5	2014	20	115
iphone 5	2014	21	125
iphone 5	2014	22	137
iphone 5	2014	23	125
iphone 5	2014	24	152
iphone 5	2014	25	142
iphone 5	2014	26	137
iphone 5	2014	27	152
iphone 5	2014	28	163
iphone 5	2014	29	151
iphone 5	2014	30	144
iphone 5	2014	31	152
iphone 5	2014	32	135
iphone 5	2014	33	119
iphone 5	2014	34	110
iphone 5	2014	35	101
iphone 5	2014	36	2
iphone 5s	2014	18	42
iphone 5s	2014	19	73
iphone 5s	2014	20	79
iphone 5s	2014	21	79
iphone 5s	2014	22	74
iphone 5s	2014	23	71
iphone 5s	2014	24	79
iphone 5s	2014	25	79
iphone 5s	2014	26	78
iphone 5s	2014	27	94
iphone 5s	2014	28	83
iphone 5s	2014	29	93
iphone 5s	2014	30	90
iphone 5s	2014	31	103
iphone 5s	2014	32	71
iphone 5s	2014	33	67
iphone 5s	2014	34	65
iphone 5s	2014	35	70
iphone 5s	2014	36	3
kindle fire	2014	18	6

kindle fire	2014	19	27
kindle fire	2014	20	21
kindle fire	2014	21	23
kindle fire	2014	22	30
kindle fire	2014	23	21
kindle fire	2014	24	25
kindle fire	2014	25	25
kindle fire	2014	26	24
kindle fire	2014	27	26
kindle fire	2014	28	25
kindle fire	2014	29	31
kindle fire	2014	30	37
kindle fire	2014	31	25
kindle fire	2014	32	14
kindle fire	2014	33	12
kindle fire	2014	34	14
kindle fire	2014	35	13
kindle fire	2014	36	3
lenovo thinkpad	2014	18	86
lenovo thinkpad	2014	19	153
lenovo thinkpad	2014	20	178
lenovo thinkpad	2014	21	173
lenovo thinkpad	2014	22	167
lenovo thinkpad	2014	23	176
lenovo thinkpad	2014	24	176
lenovo thinkpad	2014	25	165
lenovo thinkpad	2014	26	197
lenovo thinkpad	2014	27	192
lenovo thinkpad	2014	28	202
lenovo thinkpad	2014	29	220
lenovo thinkpad	2014	30	209
lenovo thinkpad	2014	31	206
lenovo thinkpad	2014	32	207
lenovo thinkpad	2014	33	179
lenovo thinkpad	2014	34	191
lenovo thinkpad	2014	35	193
lenovo thinkpad	2014	36	16
mac mini	2014	18	6
mac mini	2014	19	13
mac mini	2014	20	18
mac mini	2014	21	26

mac mini	2014	22	18
mac mini	2014	23	25
mac mini	2014	24	18
mac mini	2014	25	29
mac mini	2014	26	21
mac mini	2014	27	11
mac mini	2014	28	15
mac mini	2014	29	28
mac mini	2014	30	31
mac mini	2014	31	23
mac mini	2014	32	24
mac mini	2014	33	20
mac mini	2014	34	32
mac mini	2014	35	30
mac mini	2014	36	2
macbook air	2014	18	54
macbook air	2014	19	121
macbook air	2014	20	112
macbook air	2014	21	119
macbook air	2014	22	110
macbook air	2014	23	145
macbook air	2014	24	124
macbook air	2014	25	152
macbook air	2014	26	121
macbook air	2014	27	134
macbook air	2014	28	142
macbook air	2014	29	148
macbook air	2014	30	148
macbook air	2014	31	159
macbook air	2014	32	147
macbook air	2014	33	125
macbook air	2014	34	133
macbook air	2014	35	136
macbook air	2014	36	10
macbook pro	2014	18	143
macbook pro	2014	19	252
macbook pro	2014	20	266
macbook pro	2014	21	256
macbook pro	2014	22	247
macbook pro	2014	23	251
macbook pro	2014	24	266

macbook pro	2014	25	255
macbook pro	2014	26	275
macbook pro	2014	27	269
macbook pro	2014	28	302
macbook pro	2014	29	295
macbook pro	2014	30	295
macbook pro	2014	31	322
macbook pro	2014	32	321
macbook pro	2014	33	307
macbook pro	2014	34	312
macbook pro	2014	35	292
macbook pro	2014	36	17
nexus 10	2014	18	16
nexus 10	2014	19	30
nexus 10	2014	20	25
nexus 10	2014	21	22
nexus 10	2014	22	25
nexus 10	2014	23	27
nexus 10	2014	24	45
nexus 10	2014	25	38
nexus 10	2014	26	29
nexus 10	2014	27	29
nexus 10	2014	28	37
nexus 10	2014	29	26
nexus 10	2014	30	25
nexus 10	2014	31	36
nexus 10	2014	32	24
nexus 10	2014	33	30
nexus 10	2014	34	23
nexus 10	2014	35	25
nexus 10	2014	36	2
nexus 5	2014	18	40
nexus 5	2014	19	73
nexus 5	2014	20	87
nexus 5	2014	21	103
nexus 5	2014	22	91
nexus 5	2014	23	96
nexus 5	2014	24	88
nexus 5	2014	25	87
nexus 5	2014	26	89
nexus 5	2014	27	87

nexus 5	2014	28	84
nexus 5	2014	29	85
nexus 5	2014	30	77
nexus 5	2014	31	84
nexus 5	2014	32	69
nexus 5	2014	33	67
nexus 5	2014	34	70
nexus 5	2014	35	70
nexus 5	2014	36	4
nexus 7	2014	18	18
nexus 7	2014	19	30
nexus 7	2014	20	41
nexus 7	2014	21	32
nexus 7	2014	22	29
nexus 7	2014	23	45
nexus 7	2014	24	36
nexus 7	2014	25	49
nexus 7	2014	26	51
nexus 7	2014	27	46
nexus 7	2014	28	40
nexus 7	2014	29	39
nexus 7	2014	30	45
nexus 7	2014	31	62
nexus 7	2014	32	38
nexus 7	2014	33	25
nexus 7	2014	34	30
nexus 7	2014	35	33
nexus 7	2014	36	2
nokia lumia 635	2014	18	17
nokia lumia 635	2014	19	33
nokia lumia 635	2014	20	23
nokia lumia 635	2014	21	22
nokia lumia 635	2014	22	25
nokia lumia 635	2014	23	25
nokia lumia 635	2014	24	31
nokia lumia 635	2014	25	35
nokia lumia 635	2014	26	37
nokia lumia 635	2014	27	42
nokia lumia 635	2014	28	31
nokia lumia 635	2014	29	35
nokia lumia 635	2014	30	43



nokia lumia 635	2014	31	34
nokia lumia 635	2014	32	28
nokia lumia 635	2014	33	28
nokia lumia 635	2014	34	27
nokia lumia 635	2014	35	17
nokia lumia 635	2014	36	2
samsung galaxy tablet	2014	18	8
samsung galaxy tablet	2014	19	11
samsung galaxy tablet	2014	20	6
samsung galaxy tablet	2014	21	9
samsung galaxy tablet	2014	22	6
samsung galaxy tablet	2014	23	10
samsung galaxy tablet	2014	24	14
samsung galaxy tablet	2014	25	11
samsung galaxy tablet	2014	26	12
samsung galaxy tablet	2014	27	12
samsung galaxy tablet	2014	28	15
samsung galaxy tablet	2014	29	9
samsung galaxy tablet	2014	30	13
samsung galaxy tablet	2014	31	9
samsung galaxy tablet	2014	32	8
samsung galaxy tablet	2014	33	6
samsung galaxy tablet	2014	34	12
samsung galaxy tablet	2014	35	14
samsung galaxy note	2014	18	7
samsung galaxy note	2014	19	15
samsung galaxy note	2014	20	11
samsung galaxy note	2014	21	18
samsung galaxy note	2014	22	20
samsung galaxy note	2014	23	19
samsung galaxy note	2014	24	14
samsung galaxy note	2014	25	20
samsung galaxy note	2014	26	14
samsung galaxy note	2014	27	9
samsung galaxy note	2014	28	15
samsung galaxy note	2014	29	10
samsung galaxy note	2014	30	16
samsung galaxy note	2014	31	15
samsung galaxy note	2014	32	14
samsung galaxy note	2014	33	12
samsung galaxy note	2014	34	13

samsung galaxy note	2014	35	13
samsung galaxy note	2014	36	1
samsung galaxy s4	2014	18	52
samsung galaxy s4	2014	19	82
samsung galaxy s4	2014	20	91
samsung galaxy s4	2014	21	93
samsung galaxy s4	2014	22	84
samsung galaxy s4	2014	23	105
samsung galaxy s4	2014	24	99
samsung galaxy s4	2014	25	101
samsung galaxy s4	2014	26	99
samsung galaxy s4	2014	27	112
samsung galaxy s4	2014	28	116
samsung galaxy s4	2014	29	122
samsung galaxy s4	2014	30	123
samsung galaxy s4	2014	31	103
samsung galaxy s4	2014	32	100
samsung galaxy s4	2014	33	82
samsung galaxy s4	2014	34	80
samsung galaxy s4	2014	35	90
samsung galaxy s4	2014	36	6
windows surface	2014	18	10
windows surface	2014	19	10
windows surface	2014	20	16
windows surface	2014	21	21
windows surface	2014	22	17
windows surface	2014	23	15
windows surface	2014	24	14
windows surface	2014	25	22
windows surface	2014	26	22
windows surface	2014	27	21
windows surface	2014	28	33
windows surface	2014	29	33
windows surface	2014	30	28
windows surface	2014	31	19
windows surface	2014	32	19
windows surface	2014	33	10
windows surface	2014	34	15
windows surface	2014	35	18
windows surface	2014	36	3

## E)Email Engagement Analysis

### Query:

```
select 100.0*sum(case when email_category = 'email_open' then 1 else 0
end)/sum(case when email_category = 'email_sent' then 1 else 0 end) as
'email_open_rate',
100.0*sum(case when email_category = 'email_click' then 1 else 0 end)/sum(case
when email_category = 'email_sent' then 1 else 0 end) as 'email_click_rate'
From(select *,
case
when action in ('sent_weekly_digest','sent_reengagement_email') then 'email_sent'
when action in ('email_open') then 'email_open'
when action in('email_clickthrough') then 'email_click'
end as email_category
from emailevents)a
```

### output :

email_open_rate	email_click_rate
35.72564	15.73332

```
119 • select
120     100.0*sum(case when email_category = 'email_open' then 1 else 0 end)/sum(case when email_category = 'email_sent
121     100.0*sum(case when email_category = 'email_click' then 1 else 0 end)/sum(case when email_category = 'email_sent
122 From(select *,
123 case
124     when action in ('sent_weekly_digest','sent_reengagement_email') then 'email_sent'
125     when action in ('email_open') then 'email_open'
126     when action in('email_clickthrough') then 'email_click'
127 end as email_category
128 from emailevents)a
129
130
131
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: |

email_open_rate	email_click_rate
35.72564	15.73332

Result Grid

## **Project details:**

**Description** : The purpose of this project is to identify the metrics, to find the retention data, engagement analysis and so on

**Approach**: As a first step I went through the project to identify the topics that I need to implement in the project . later I learnt those concepts and implemented in the project.

**Tech-stack used** : MySQL workbench 8.0

**Reason** : I have used MySQL workbench. Reason why I have selected the mentioned tech stack is it is cross platform compatible open source RDBMS.

**Insights** : The insights we can draw from this project are engagement analysis, cohort analysis, getting retention data and so on.

**Result** : I was able to extract the required data as per the project given. I gained knowledge in new concepts like cohort analysis, loading data from excel into mysql workbench and so on.