

# **Business Analytics with Digital Marketing**

**BUSINESS ANALYTICS**

**CAPSTONE PROJECT**

**Submitted By:**

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# Instagram User Analytics

## → Marketing Analysis:

### 1) Loyal User Reward:

INPUT:

```
select * from users1  
order by created_at asc  
limit 5
```

OUTPUT:

	id	username	created_at
▶	180	Darby_Herzog	2016-05-06 00:14:21
	80	Darby_Herzog	2016-05-06 00:14:21
	167	Emilio_Bernier52	2016-05-06 13:04:30
	67	Emilio_Bernier52	2016-05-06 13:04:30
	63	Elenor88	2016-05-08 01:30:41

### II) Inactive User Engagement:

INPUT:

```
select * from users1 as a  
left join photos as b on  
a.id=b.user_id and  
b.user_id is null
```

## OUTPUT:

	<b>id</b>	<b>username</b>	<b>created_at</b>
▶	1	Kenton_Kirlin	2017-02-16 18:22:11
	2	Andre_Purdy85	2017-04-02 17:11:21
	3	Harley_Lind18	2017-02-21 11:12:33
	4	Arely_Bogan63	2016-08-13 01:28:43
	5	Aniya_Hackett	2016-12-07 01:04:39
	6	Travon.Waters	2017-04-30 13:26:14
	7	Kassandra_Homenick	2016-12-12 06:50:08
	8	Tabitha_Schamberger11	2016-08-20 02:19:46
	9	Gus93	2016-06-24 19:36:31
	10	Presley_McClure	2016-08-07 16:25:49
	11	Justina.Gaylord27	2017-05-04 16:32:16
	12	Dereck65	2017-01-19 01:34:14
	13	Alexandro35	2017-03-29 17:09:02
	14	Jadyn81	2017-02-06 23:29:16
	15	Billy52	2016-10-05 14:10:20
	16	Annalise.McKenzie16	2016-08-02 21:32:46
	17	Norbert_Carroll35	2017-02-06 22:05:43

## III) Contest Winner Declaration:

Input:

```
select * from
(select user_id, count(photo_id) as cnt from likes
group by user_id
order by cnt desc) as a
left join users1 as b on a.user_id = b.id
```

## OUTPUT:

	user_id	cnt	id	username	created_at
▶	21	257	21	Rocio33	2017-01-23 11:51:15
	71	257	71	Nia_Haag	2016-05-14 15:38:50
	5	257	5	Aniya_Hackett	2016-12-07 01:04:39
	66	257	66	Mike.Auer39	2016-07-01 17:36:15
	41	257	41	Mckenna17	2016-07-17 17:25:45
	14	257	14	Jadyn81	2017-02-06 23:29:16
	57	257	57	Julien_Schmidt	2017-02-02 23:12:48
	24	257	24	Maxwell.Halvorson	2017-04-18 02:32:44
	76	257	76	Janelle.Nikolaus81	2016-07-21 09:26:09
	75	257	75	Leslie67	2016-09-21 05:14:01
	54	257	54	Duane60	2016-12-21 04:43:38
	91	257	91	Bethany20	2016-06-03 23:31:53

## IV) Hashtag Research:

### INPUT:

```
select tag_name, count(tag_id) as cnt from tags as a  
left join photo_tags as b  
on a.id=b.tag_id  
group by a.tag_name
```

### OUTPUT:

	tag_name	cnt
▶	smile	59
	beach	42
	party	39
	fun	38
	concert	24

## V) AdCampaign Launch:

### INPUT:

```
select week(created_at) as wk ,
```

```
count(week(created_at)) as cnt from users  
group by wk  
order by cnt desc
```

OUTPUT:

	wk	cnt
▶	18	5
	6	5
	40	4
	13	4
	27	4
	19	4
	14	3
	34	3
	23	3
	35	3
	4	3
	22	3
	44	3
	1	3

→ Investor Metrics:

VI) User Engagement:

INPUT:

```
select user_id, count(photo_id) as cnt_likes from likes  
group by user_id  
order by cnt_likes desc;
```

OUTPUT:

	user_id	avg(a.id)
▶	1	1.0000
	2	2.0000
	3	3.0000
	4	4.0000
	NULL	54.1923
	6	6.0000
	8	8.0000
	9	9.0000
	10	10.0000
	11	11.0000
	12	12.0000
	13	13.0000
	15	15.0000

**INPUT:**

```
select count(b.image_url) / count(a.id) as  
avg1 from users as a  
left join photos as b  
on a.id = b.user_id
```

**OUTPUT:**

	avg1
▶	0.9081

## VII) Bots & Fake Accounts:

**INPUT:**

```
create table false_id  
select user_id, count(photo_id) as cnt_likes from likes  
group by user_id  
order by cnt_likes desc;
```

**OUTPUT:**

	user_id	cnt_likes
▶	21	257
	71	257
	5	257
	66	257
	41	257
	14	257
	57	257
	24	257
	76	257
	75	257
	54	257
	91	257
	36	257
	16	103
	96	98
	69	97
	65	96

INPUT:

```
select count(*)from fake_id  
where cnt_likes= '257'
```

OUTPUT:

	count(*)
▶	13