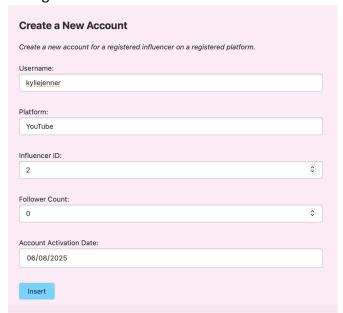# Influencer Marketing Database Functionality

INSERT Operation

- Before:

Accounts

User Name	Platform	Influencer ID	Follower Count	Account Activation Date
jennerxky	Twitter	2	294000	2011-07-01T07:00:00.000Z
kyljen	Instagram	2	21700	2013-07-21T07:00:00.000Z
kenjen	Instagram	3	286000	2011-07-02T07:00:00.000Z
kenjen	YouTube	3	2230	2015-01-01T07:00:00.000Z
kimxkim	Twitter	4	294000	2011-07-01T07:00:00.000Z

- During:

Create a New Account

Create a new account for a registered influencer on a registered platform.

Username:

kyliejenner

Platform:

YouTube

Influencer ID:

2

Follower Count:

0

Account Activation Date:

06/08/2025

Insert

- After:

Accounts

User Name	Platform	Influencer ID	Follower Count	Account Activation Date
jennerxky	Twitter	2	294000	2011-07-01T07:00:00.000Z
kyliejenner	YouTube	2	0	2025-08-06T07:00:00.000Z
kyljen	Instagram	2	21700	2013-07-21T07:00:00.000Z
kenjen	Instagram	3	286000	2011-07-02T07:00:00.000Z
kenjen	YouTube	3	2230	2015-01-01T07:00:00.000Z

** Table is scrollable, so not all tuples are currently in frame

DELETE Operation

- Before:

Influencers

ID	Name	Location	Age	Niche
1	Addison Rae	USA	24	Music
2	Kylie Jenner	USA	27	Beauty
3	Kendall Jenner	USA	29	Wine
4	Kim Kardashian	USA	44	TV
5	Shawn Mendes	CAN	26	Music

Accounts

User Name	Platform	Influencer ID	Follower Count	Account Activation Date
addraeins	Instagram	1	980000	2025-01-01T07:00:00.000Z
jennerxky	Twitter	2	294000	2011-07-01T07:00:00.000Z
kyljen	Instagram	2	21700	2013-07-21T07:00:00.000Z
kenjen	Instagram	3	286000	2011-07-02T07:00:00.000Z
kenjen	YouTube	3	2230	2015-01-01T07:00:00.000Z

- During:

Delete Influencer

Enter the ID of the influencer you wish to remove from the database.

InfluencerID:

2

Delete

- After:

Influencers

ID	Name	Location	Age	Niche
1	Addison Rae	USA	24	Music
3	Kendall Jenner	USA	29	Wine
4	Kim Kardashian	USA	44	TV
5	Shawn Mendes	CAN	26	Music
6	Justin Bieber	CAN	31	Music

Accounts

User Name	Platform	Influencer ID	Follower Count	Account Activation Date
addraeins	Instagram	1	980000	2025-01-01T07:00:00.000Z
kenjen	Instagram	3	286000	2011-07-02T07:00:00.000Z
kenjen	YouTube	3	2230	2015-01-01T07:00:00.000Z
kimxkim	Twitter	4	294000	2011-07-01T07:00:00.000Z
shawn	Instagram	5	357	2016-10-09T07:00:00.000Z

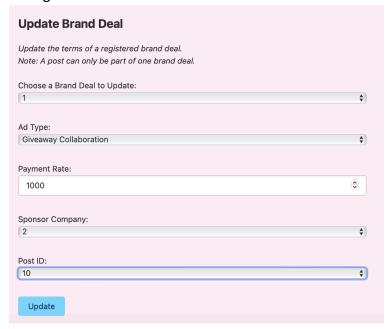** Deleting Influencer cascades to Account

UPDATE Operation

- Before:

Brand Deals

ID	Ad Type	Payment Rate	Company ID	Post ID
1	Sponsored Post	500	1	1
2	Shoutout	300	2	2
3	Giveaway Collaboration	750	3	3
4	Review	0.05	4	4
5	Product Placement	0.1	5	16

- During:

Update Brand Deal

Update the terms of a registered brand deal.
Note: A post can only be part of one brand deal.

Choose a Brand Deal to Update:
| 1 |

Ad Type:
| Giveaway Collaboration |

Payment Rate:
| 1000 |

Sponsor Company:
| 2 |

Post ID:
| 10 |

[Update]

- After:

Brand Deals

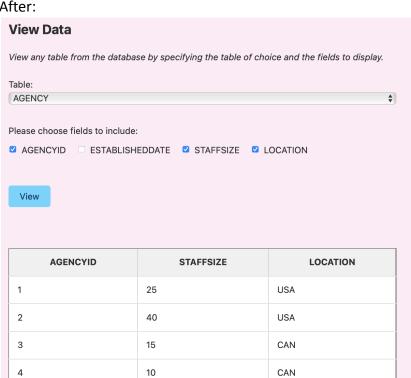| ID	Ad Type	Payment Rate	Company ID	Post ID
1	Giveaway Collaboration	1000	2	10
2	Shoutout	300	2	2
3	Giveaway Collaboration	750	3	3
4	Review	0.05	4	4
5	Product Placement	0.1	5	16

PROJECTION

- Before: no table(s)
- During:

- After:

SELECTION (AND)

- Before: no table(s)
- During:

Filter Influencers

Find influencers of interest by filtering your search.

Match ALL Filters

Influencer ID ⇅	< ⇅	20

Age ⇅	> ⇅	25	X

`+`

`Search`

- After:

Filter Influencers

Find influencers of interest by filtering your search.

Match ALL Filters

Influencer ID ⇅	< ⇅	20

Age ⇅	> ⇅	25	X

`+`

`Search`

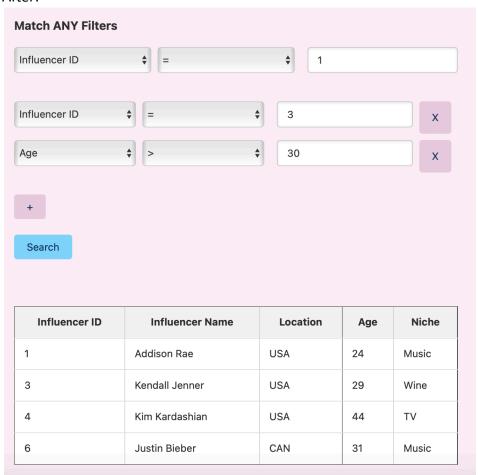| Influencer ID	Influencer Name	Location	Age	Niche
3	Kendall Jenner	USA	29	Wine
4	Kim Kardashian	USA	44	TV
5	Shawn Mendes	CAN	26	Music
6	Justin Bieber	CAN	31	Music
11	Bang Chan	AUS	28	Idol

** Table is scrollable, so not all tuples are currently in frame

SELECTION (OR)

- Before: no table(s)
- During:

Match ANY Filters

Influencer ID ▲▼	= ▲▼	1

Influencer ID ▲▼	= ▲▼	3	X
Age ▲▼	> ▲▼	30	X

+

Search

- After:

Match ANY Filters

Influencer ID ▲▼	= ▲▼	1

Influencer ID ▲▼	= ▲▼	3	X
Age ▲▼	> ▲▼	30	X

+

Search

Influencer ID	Influencer Name	Location	Age	Niche
1	Addison Rae	USA	24	Music
3	Kendall Jenner	USA	29	Wine
4	Kim Kardashian	USA	44	TV
6	Justin Bieber	CAN	31	Music

JOIN

- Before: no table(s)
- During:

Production Cost

Find the advertisement type of posts with production cost above threshold.

Production Cost threshold:

1000	⇕

[Go]

- After:

Production Cost

Find the advertisement type of posts with production cost above threshold.

Production Cost threshold:

1000	⇕

[Go]

Advertisement Type	Production Cost
Review	1099
Product Placement	2160

Aggregation with GROUP BY

- Before: no table(s)
- During:

Platform Demographics

Find the average age of influencers on each platform.

Go

- After:

Platform Demographics

Find the average age of influencers on each platform.

Go

Platform	Average Influncer Age
Facebook	26.33333333333333
YouTube	27
Twitter	30.8
TikTok	26.33333333333333
Instagram	27.5

Aggregation with HAVING

- Before: no table(s)
- During:

Post Engagement Rate

Find the average post engagement rate for each category of advertised product with engagement rates above the lower bound.

We define engagement rate as (likes + comments)/views.

Lower bound:

```
0.3
```

Go

- After:

Post Engagement Rate

Find the average post engagement rate for each category of advertised product with engagement rates above the lower bound.

We define engagement rate as (likes + comments)/views.

Lower bound:

```
0.3
```

Go

Product Category	Average Engagement Rate
Electronics	0.3619828815977175
Food	0.42500000000000004
Personal Care	0.3611111111111111

Nested aggregation with GROUP BY

- Before: no table(s)
- During:

Popular Sponsored Influencers

Find the account(s) with the most sponsored posts under brand deals.

Go

- After:

Popular Sponsored Influencers

Find the account(s) with the most sponsored posts under brand deals.

Go

Username	Platform	Number of Brand Deal Posts
addrae	TikTok	3

DIVISION

- Before: no table(s)
- During:

Influencers With Reach

Find the IDs of all influencers who have accounts on every platform.

Go

- After:

Influencers With Reach

Find the IDs of all influencers who have accounts on every platform.

Go

Influencer ID
1
11
12