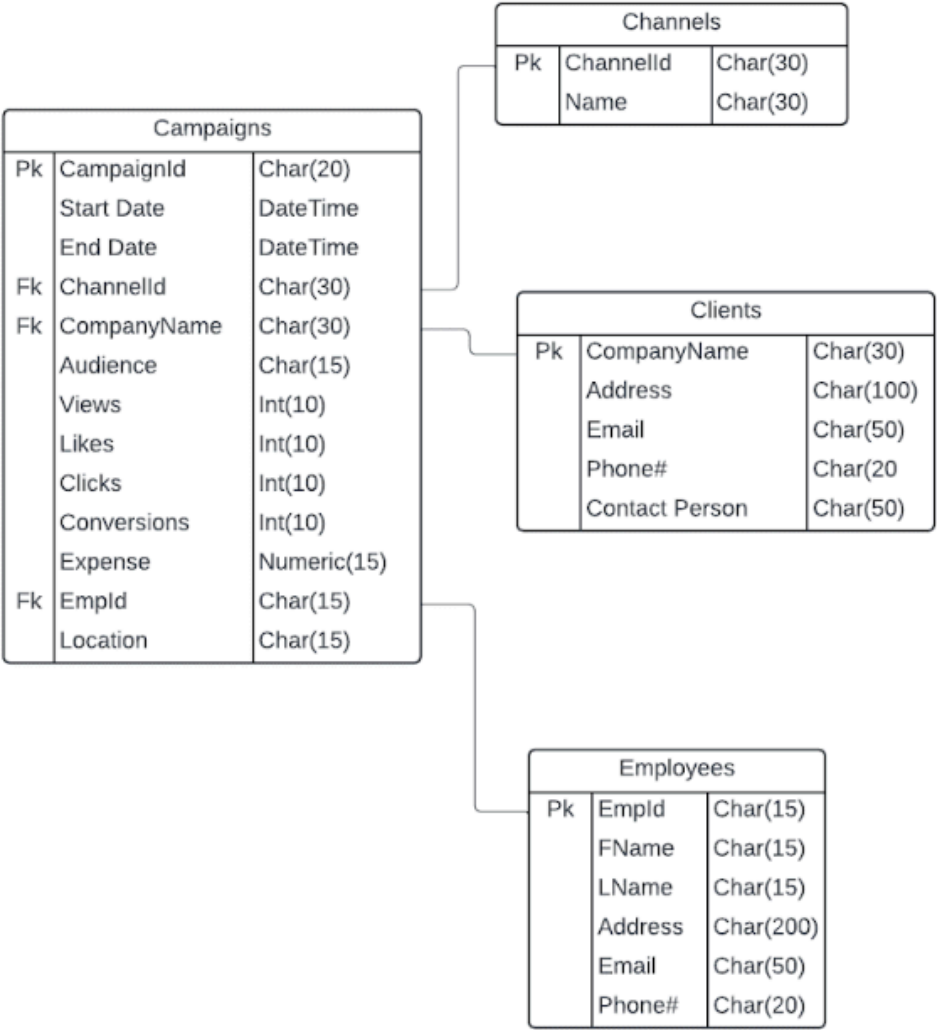


The Functional ERD



```

Create Table Campaigns
(
  CampaignId Char(20) PRIMARY KEY,
  StartDate DateTime NOT NULL,
  EndDate DateTime NOT NULL,
  Location Char(15) NOT NULL,
  Audience Char(15) NOT NULL,
  Views Int(10) NOT NULL,
  Likes Int(10) NOT NULL,
  Clicks Int(10) NOT NULL,
  Conversions Int(10) NOT NULL,
  Expense Numeric(15) NOT NULL,
  EmpId Char(15) NOT NULL,
  ChannelId Char(30) NOT NULL,
  CompanyName Char(30) NOT NULL,
  FOREIGN KEY (EmpId) REFERENCES Employees(EmpId),
  FOREIGN KEY (ChannelId) REFERENCES Channels(ChannelId),
  FOREIGN KEY (CompanyName) REFERENCES Clients(CompanyName)
);

INSERT INTO campaigns (CampaignId,StartDate,EndDate,Location,Audience,Views,Likes,Clicks,Conversions,Expense,EmpId,ChannelId,VALUES
('Campaign1', '2023-12-18 0:00:00', '2024-01-10 0:00:00', 'USA', 'Adults 18-40', 23458, 7718, 1056, 702, 13961.03, 'E001', '
('Campaign2', '2023-10-12 0:00:00', '2023-11-09 0:00:00', 'LATAM', 'Female 60+', 92422, 8075, 1360, 182, 43804.31, 'E002', '
('Campaign3', '2023-05-18 0:00:00', '2023-06-04 0:00:00', 'Canada', 'Male 40-60', 45934, 2446, 1655, 669, 36007.47, 'E003', '
('Campaign4', '2023-02-23 0:00:00', '2023-03-09 0:00:00', 'Europe', 'Female 18-40', 30391, 1700, 2669, 243, 37425.85, 'E003', '
('Campaign5', '2023-11-20 0:00:00', '2023-12-11 0:00:00', 'Canada', 'Male 60+', 52042, 191, 4242, 753, 48590.34, 'E004', '
('Campaign6', '2023-09-19 0:00:00', '2023-10-05 0:00:00', 'USA', 'Male 60+', 40365, 7775, 1499, 945, 26693.82, 'E004', 'C001
('Campaign7', '2023-06-19 0:00:00', '2023-07-09 0:00:00', 'Japan', 'Seniors 60+', 51437, 4435, 97, 498, 4274.45, 'E003', 'C
('Campaign8', '2023-07-08 0:00:00', '2023-07-20 0:00:00', 'UK', 'Adults 40-60', 63951, 4627, 1858, 798, 7863.20, 'E002', 'C
('Campaign9', '2023-04-24 0:00:00', '2023-05-17 0:00:00', 'Australia', 'Adults 18-40', 24495, 8354, 4208, 527, 14404.95, 'E
('Campaign10', '2023-06-05 0:00:00', '2023-06-07 0:00:00', 'USA', 'Male 60+', 49877, 8180, 905, 937, 26039.88, 'E002', 'C

```

The screenshot of the database

Marketflash - Beekeeper Studio

/Users/chitrarao/Desktop/Project/Market +

Filter

ENTITIES

- Campaigns
- Channels
 - ChannelId char(30)
 - Name char(20)
- Clients
 - CompanyName char(30)
 - Address char(200)
 - Email char(50)
 - PhoneNo char(15)
 - ContactPerson char(50)
- Employees
 - EmpId char(15)
 - FName char(15)
 - LName char(15)
 - Address char(200)
 - Email char(50)
 - PhoneNo char(20)

Query #1

```
23 Create Table Campaigns
24 (
25 CampaignId Char(20) PRIMARY KEY,
26 StartDate DateTime NOT NULL,
27 EndDate DateTime NOT NULL,
28 Location Char(15) NOT NULL,
29 Audience Char(15) NOT NULL,
30 Views Int(10) NOT NULL,
31 Likes Int(10) NOT NULL,
32 Clicks Int(10) NOT NULL,
33 Conversions Int(10) NOT NULL,
34 Expense Numeric(15) NOT NULL,
35 EmpId Char(15) NOT NULL,
36 ChannelId Char(30) NOT NULL,
37 CompanyName Char(30) NOT NULL,
38 FOREIGN KEY (EmpId) REFERENCES Employees(EmpId),
39 FOREIGN KEY (ChannelId) REFERENCES Channels(ChannelId),
40 FOREIGN KEY (CompanyName) REFERENCES Clients(CompanyName)
41 );
42
43 INSERT INTO campaigns (CampaignId,StartDate,EndDate,Location,Audience,Views,Likes,Clicks,Conversions,Expense,EmpId,ChannelId
44 VALUES
45 ('Campaign1', '2023-12-18 0:00:00', '2024-01-10 0:00:00', 'USA', 'Adults 18-40', 23458, 7718, 1056, 702, 13961.03, 'E001',
46 ('Campaign2', '2023-10-12 0:00:00', '2023-11-09 0:00:00', 'LATAM', 'Female 60+', 92422, 8075, 1360, 182, 43804.31, 'E002',
47 ('Campaign3', '2023-05-18 0:00:00', '2023-06-04 0:00:00', 'Canada', 'Male 40-60', 45934, 2446, 1655, 669, 36007.47, 'E003',
48 ('Campaign4', '2023-02-23 0:00:00', '2023-03-09 0:00:00', 'Europe', 'Female 18-40', 30391, 1700, 2669, 243, 37425.85, 'E004',
49 ('Campaign5', '2023-11-20 0:00:00', '2023-12-11 0:00:00', 'Canada', 'Male 60+', 52042, 191, 4242, 753, 48590.34, 'E004',
50 ('Campaign6', '2023-09-19 0:00:00', '2023-10-05 0:00:00', 'USA', 'Male 60+', 48365, 7775, 1499, 945, 26693.82, 'E004', 'C00
51 ('Campaign7', '2023-06-19 0:00:00', '2023-07-09 0:00:00', 'Japan', 'Seniors 60+', 51437, 4435, 97, 498, 4274.45, 'E003',
52 ('Campaign8', '2023-07-08 0:00:00', '2023-07-20 0:00:00', 'UK', 'Adults 40-60', 63951, 4627, 1858, 798, 7863.20, 'E002',
53 ('Campaign9', '2023-04-24 0:00:00', '2023-05-17 0:00:00', 'Australia', 'Adults 18-40', 24495, 8354, 4208, 527, 14404.95, 'E
54 ('Campaign10', '2023-06-05 0:00:00', '2023-06-07 0:00:00', 'USA', 'Male 60+', 49877, 8180, 905, 937, 26039.88, 'E002', 'C
```

Save Run

Query 1/1: No Results. 0 rows affected. See the select box in the bottom left for more query results.

Marketflash sqlite 0 affected 0.013 s Download

The database code to test the joins

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Filter

ENTITIES

- Campaigns
 - ChannelId char(30)
 - Name char(20)
- Channels
 - ChannelId char(30)
 - Name char(20)
- Clients
 - CompanyName char(30)
 - Address char(200)
 - Email char(50)
 - PhoneNo char(15)
 - ContactPerson char(50)
- Employees
 - EmpId char(15)
 - FName char(15)
 - LName char(15)
 - Address char(200)
 - Email char(50)
 - PhoneNo char(20)

Query #1 Query #2 Query #3 Query #4 Campaigns [all] Campaigns [all] Campaigns [all] Campaigns [all]

```
1 Select c.CampaignId,e.FName from Campaigns c,Employees e
2 using(EmpId)
3
4 Select c.Location,cn.ContactPerson from Campaigns c,Clients cn
5 using(CompanyName)
6
7 select c.CampaignId,ch.Name from Campaigns c,Channels ch
8 using(ChannelId)
9
10
11
12
13
14
15
16
```

Save Run

CampaignId	Name
Campaign1	Youtube
Campaign2	Email
Campaign3	Tiktok
Campaign4	Instagram
Campaign5	Instagram
Campaign6	Youtube
Campaign7	Instagram
Campaign8	Facebook
Campaign9	Email
Campaign10	Facebook

Marketflash sqlite 10 0 affected 0.012 s Download

Extra Challenge:

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Filter

ENTITIES 4

- Campaigns
 - Channels
 - ChannelId char(30)
 - Name char(20)
 - Clients
 - CompanyName char(30)
 - Address char(200)
 - Email char(50)
 - PhoneNo char(15)
 - ContactPerson char(50)
 - Employees
 - EmpId char(15)
 - FName char(15)
 - LName char(15)
 - Address char(200)
 - Email char(50)
 - PhoneNo char(20)

Query #1 Query #2 Query #3 Query #4 Campaigns [all] Campaigns [all] Campaigns [all] Campaigns [all]

```
1 select round(avg(expense/clicks),2) as costperclick from campaigns
2
3
4 select round(avg(expense/conversions),2) as costperconversion from campaigns
5
6
7 select audience,sum(views) as total_views,sum(likes) as total_likes,sum(clicks) as total_clicks,sum(conversions) as total_cor
8 group by audience
9
10
11
```

Save Run

Audience	total_views	total_likes	total_clicks	total_conversions
Adults 18-40	47953	16072	5264	1229
Adults 40-60	63951	4627	1858	798
Female 18-40	30391	1700	2669	243
Female 60+	92422	8075	1360	182
Male 40-60	45934	2446	1655	669
Male 60+	142284	16146	6646	2635
Seniors 60+	51437	4435	97	498

Marketflash sqllite 7 0 affected 0.016 s Download