

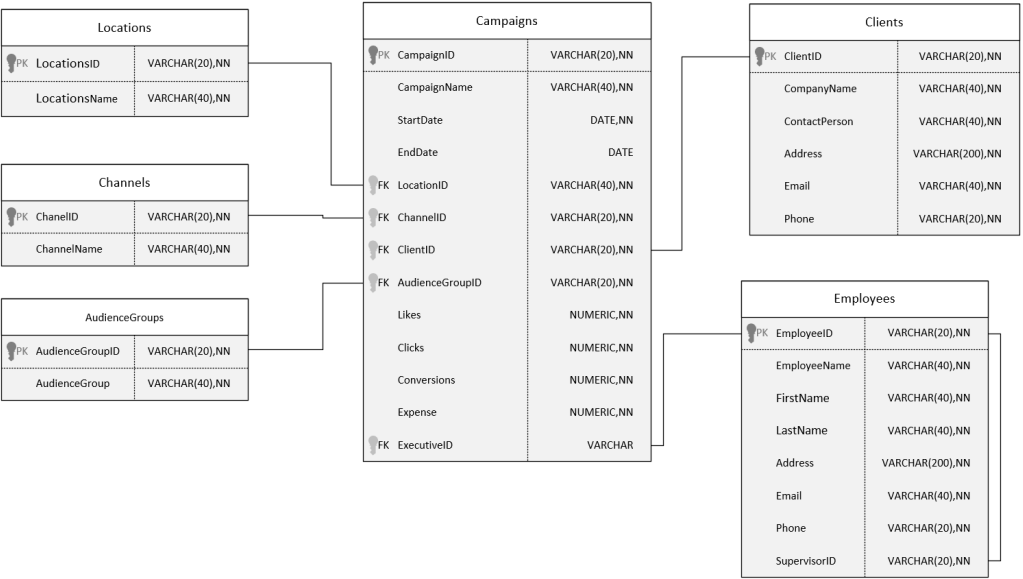
# Mini Project - MarketFlash - The Database Design

2024.06.18

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# 1. Functional ER Diagram



## 2. Code for creating and testing the database

### 2.1 Creating the database

-- Create Clients Table

```
CREATE TABLE Clients (  
    ClientID VARCHAR(20) NOT NULL PRIMARY KEY,  
    CompanyName VARCHAR(40) NOT NULL,  
    ContactPerson VARCHAR(40) NOT NULL,  
    Address VARCHAR(200) NOT NULL,  
    Email VARCHAR(40) NOT NULL,  
    Phone VARCHAR(20) NOT NULL  
);
```

-- Create Employees Table

```
CREATE TABLE Employees (  
    EmployeeID VARCHAR(20) NOT NULL PRIMARY KEY,  
    EmployeeName VARCHAR(40) NOT NULL,  
    FirstName VARCHAR(40) NOT NULL,  
    LastName VARCHAR(40) NOT NULL,  
    Address VARCHAR(200) NOT NULL,  
    Email VARCHAR(40) NOT NULL,  
    Phone VARCHAR(20) NOT NULL,  
    SupervisorID VARCHAR(20),  
);
```

-- Create Channels Table

```
CREATE TABLE Channels (  
    ChannelID VARCHAR(20) NOT NULL PRIMARY KEY,  
    ChannelName VARCHAR(40) NOT NULL  
);
```

-- Create Locations Table

```
CREATE TABLE Locations (  
    LocationsID VARCHAR(20) NOT NULL PRIMARY KEY,  
    LocationsName VARCHAR(40) NOT NULL  
);
```

-- Create AudienceGroups Table

```
CREATE TABLE AudienceGroups (  
    AudienceGroupID VARCHAR(20) NOT NULL PRIMARY KEY,  
    AudienceGroup VARCHAR(40) NOT NULL  
);
```

-- Create Campaigns Table

```
CREATE TABLE Campaigns (  
    CampaignID VARCHAR(20) NOT NULL PRIMARY KEY,  
    CampaignName VARCHAR(40) NOT NULL,  
    StartDate DATE NOT NULL,  
    EndDate DATE,  
    LocationID VARCHAR(40) NOT NULL,  
    ChannelID VARCHAR(20) NOT NULL,  
    ClientID VARCHAR(20) NOT NULL,  
    AudienceGroupID VARCHAR(20) NOT NULL,  
    Views NUMERIC NOT NULL,  
    Likes NUMERIC NOT NULL,  
    Clicks NUMERIC NOT NULL,  
    Conversions NUMERIC NOT NULL,  
    Expense NUMERIC NOT NULL,  
    ExecutiveID VARCHAR(20),  
    FOREIGN KEY (LocationID) REFERENCES Locations(LocationsID),  
    FOREIGN KEY (ChannelID) REFERENCES Channels(ChannelID),  
    FOREIGN KEY (ClientID) REFERENCES Clients(ClientID),
```

FOREIGN KEY (AudienceGroupID) REFERENCES AudienceGroups(AudienceGroupID),  
FOREIGN KEY (ExecutiveID) REFERENCES Employees(EmployeeID)  
);

INSERT INTO Clients (ClientID, CompanyName, ContactPerson, Address, Email, Phone)  
VALUES

('CliID001', 'Lopez PLC', 'Barbara Walker', '0806 Watson Drive Suite 662, Port Andrea, DE  
42578-2286', 'zmcintyre@bauer.info', '3724028579'),

('CliID002', 'Weaver, Garner and Ramos', 'Melinda Johnston', '2933 Ortiz Overpass Suite 099,  
South Douglasburgh, KY 52632-7557', 'oscott@gmail.com', '498.978.7718x501'),

('CliID003', 'Salinas-Chavez', 'Chelsea Hoffman', '53637 Bonnie Walk Suite 961, South  
Adrianaport, IA 49560', 'richard84@hotmail.com', '2545622603'),

('CliID004', 'Russell, Wilson and Rogers', 'Michael Howard', '27907 Deborah Hill Suite 235,  
Abigailbury, CO 58408', 'michael78@yahoo.com', '(995)213-6315'),

('CliID005', 'White Ltd', 'Nathan Weber', '172 Angela Crescent Apt. 306, North Laura, HI  
69094-7497', 'jeremy56@gmail.com', '(320)185-3187x395'),

('CliID006', 'Patterson and Sons', 'Christopher Riggs', '0171 Patricia Street Suite 265,  
Frankmouth, MS 50700-0717', 'nataliemartinez@hotmail.com', '228-166-2016'),

('CliID007', 'Weaver-Hoover', 'Kathy Mahoney', '050 Andrews Green, North Renee, VT 22014-  
1131', 'jacqueline32@dominguez.biz', '574-189-4981x166'),

('CliID008', 'Ross Group', 'Lauren Graham', '2397 Allison Knolls Suite 213, Jacksonside, WV  
58803-3895', 'kristopher99@romero.org', '1-844-245-2487x0945'),

('CliID009', 'Noble, Mcneil and Cooper', 'Mark Garcia', '36911 Gay Streets Suite 795,  
Brentmouth, LA 62951-4782', 'sarahparks@yahoo.com', '356-608-6335x0070'),

('CliID010', 'Reed, Galloway and Buck', 'Andrea Simmons', '49317 Vincent Vista Suite 462,  
Port Nathan, CA 23364-0905', 'larrygraham@lucas.com', '(669)708-2006'),

('CliID011', 'Ramirez-Wilson', 'Christine Nguyen', '6802 Scott Ways, Jasonbury, NM 94299-  
7873', 'robertellis@simpson-gutierrez.com', '(414)086-9895x8325'),

('CliID012', 'Smith-Bailey', 'Sharon Reeves', '055 Rebecca Ramp, Edwardsland, WY 72139-  
7625', 'bakerpaul@holland.com', '054-495-6142x7992'),

('CliID013', 'Lewis PLC', 'Diana Love', '621 Woodard Manors Apt. 208, Port Amy, ME 05157-  
2612', 'beth20@gmail.com', '(382)505-1266'),

('CliID014', 'Schneider PLC', 'Stephen Murphy', '872 Davila Ville Apt. 985, Millerland, GA  
42888', 'beasleycraig@yahoo.com', '143.069.3791'),

('CliID015', 'Jackson Inc', 'Karen Rivers', '96299 Miller Spur, Jensenfurt, CA 97794-3156',  
jeremy09@yahoo.com', '557-670-7467x238'),

('ClilD016', 'Hunt, Woods and Saunders', 'April Brewer', '48531 Garcia Walk, Gonzalesville, WY 31844', 'rramsey@warren.com', '1-628-025-3550x66010'),

('ClilD017', 'Walter Ltd', 'Sarah Warren', '591 Gallegos Shore, East Jennifer, VT 67675', 'gravessus@gonzalez.com', '4034303913'),

('ClilD018', 'Riley PLC', 'Gary Reed', '699 Anderson Glen, Parkerside, AZ 15616-1374', 'jennifer09@york.org', '653.689.1510'),

('ClilD019', 'Roberts-Brown', 'Samantha Hudson', '725 Peter Lights Apt. 639, South Janet, WV 83873-6339', 'nguyendustin@gmail.com', '(625)918-8416x213'),

('ClilD020', 'Nunez-Bowers', 'James Woods', '6821 Walker Via Suite 228, Lake Jessica, NE 05036-1909', 'michelle44@yahoo.com', '(186)438-4897'),

('ClilD021', 'Morris, Johnson and Anderson', 'Sandy Mathis', '065 John Street, West Adamchester, NV 72944-3914', 'johnsondona@dmeier.com', '322.618.9253x9220'),

('ClilD022', 'Lyons PLC', 'Sharon Crawford', '20804 Burgess Trace, Petersenburgh, WV 31082', 'nicholastaylor@yahoo.com', '(496)403-6865'),

('ClilD023', 'Fisher Group', 'Jeremy Baker', '880 Watson Ramp Suite 059, Reynoldsfort, GU 10725', 'brian57@hotmail.com', '1-185-168-7120'),

('ClilD024', 'Gray Ltd', 'Mark Long', 'Unit 4555 Box 7398, DPO AE 23911-7290', 'owenmelinda@yahoo.com', '1728597837'),

('ClilD025', 'Holmes, Johnson and Rodriguez', 'Anne Foley', 'USCGC Erickson, FPO AE 00735-4383', 'polsen@alexander-smith.net', '1-479-099-8390x29817'),

('ClilD026', 'Bradley, Jackson and Miller', 'Dr. David Glass Jr.', '190 Bradley Mill Suite 940, Craigbury, MO 18832', 'hansonpatrick@hunt.com', '"+35(5)1561435486"'),

('ClilD027', 'Valentine-Dunn', 'Nathan May', '723 Julia Burg, Bartonhaven, VT 86914', 'gharrington@yahoo.com', '5835472748'),

('ClilD028', 'Bush, Mendez and Smith', 'Patrick Williams', '791 Darryl Squares Suite 934, Holdenport, OH 41129-2197', 'churchtimothy@yahoo.com', '+32(5)3375294169'),

('ClilD029', 'Mcbride-Finley', 'Michael Freeman', '438 Brent Roads Apt. 855, Tylerburgh, NY 69473', 'mcclainhannah@jensen-gilbert.com', '(856)414-5259x269'),

('ClilD030', 'Reyes-Rios', 'Eric Davis', '49937 Christopher Unions, Gutierrezmouth, MI 13751-5785', 'cunninghamjerry@gmail.com', '1-463-956-5944x00079'),

('ClilD031', 'Thomas-Proctor', 'Angela Moore', '820 Butler Streets Suite 875, North Denisehaven, WV 66736-0964', 'brownmario@leonard.com', '371.890.0231'),

('ClilD032', 'James, Phelps and Burgess', 'Vanessa Miranda', '026 Good Ports Apt. 881, Port Adam, KY 82799-9255', 'edurham@hotmail.com', '+83(2)9634717985'),

('ClilD033', 'Fox, Carter and Cunningham', 'Andre Manning', '99919 Michelle Green Apt. 424, West Hannah, KY 63482-6699', 'bradymcclain@hotmail.com', '1172175730'),

('ClilD034', 'Anderson Inc', 'Morgan Gross', 'Unit 0015 Box 7678, DPO AE 55030-2816', 'jgomez@gmail.com', '358.421.6618x006'),

('ClilD035', 'Jones LLC', 'Danielle Hernandez', '89103 Jennings Cape Suite 740, South Dianafort, FL 68504', 'norrisjames@pearson-burton.biz', '(363)957-0616x7906'),

('ClilD036', 'Parker, Velasquez and Dixon', 'Brian George', '33302 Fuller Lakes, West Christopher, MH 17095', 'hutchinsonmary@gmail.com', '+47(0)4867194830'),

('ClilD037', 'Miller, Bryant and Burnett', 'Christopher Clark', '1044 Kennedy Prairie Apt. 186, Jamiemouth, NE 12690-6573', 'bjohnson@martin-williams.com', '958-840-3830'),

('ClilD038', 'Drake-Vasquez', 'Teresa Doyle', '8980 Cox Park, South Robert, NV 66099-6728', 'tylersheila@hicks.com', '123-800-5701');

## 2.2 Inserting data into the database

INSERT INTO Employees (EmployeeID, EmployeeName, FirstName, LastName, Address, Email, Phone, SupervisorID) VALUES

('EmpID001', 'Lauren Riggs', 'Lauren', 'Riggs', '1', '1', '1', 'SupID001'),

('EmpID002', 'Brandon Townsend Jr.', 'Brandon', 'Townsend Jr.', '1', '1', '1', 'SupID002'),

('EmpID003', 'Thomas Ryan', 'Thomas', 'Ryan', '1', '1', '1', 'SupID003'),

('EmpID004', 'Jesus Rivera', 'Jesus', 'Rivera', '1', '1', '1', 'SupID004'),

('EmpID005', 'Wesley Simon', 'Wesley', 'Simon', '1', '1', '1', 'SupID005'),

('EmpID006', 'Becky Brown', 'Becky', 'Brown', '1', '1', '1', 'SupID006'),

('EmpID007', 'Michael Camacho', 'Michael', 'Camacho', '1', '1', '1', 'SupID007'),

('EmpID008', 'Melissa Haynes', 'Melissa', 'Haynes', '1', '1', '1', 'SupID008'),

('EmpID009', 'Aaron Faulkner', 'Aaron', 'Faulkner', '1', '1', '1', 'SupID009'),

('EmpID010', 'Kyle Serrano', 'Kyle', 'Serrano', '1', '1', '1', 'SupID010');

INSERT INTO Channels (ChannelID, ChannelName) VALUES

('ChalD001', 'YouTube'),

('ChalD002', 'Email'),

('ChalD003', 'TikTok'),

('ChalD004', 'Instagram'),

('ChalD005', 'Facebook');



```
INSERT INTO AudienceGroups (AudienceGroupID, AudienceGroup) VALUES
```

```
('AudID001', 'Adults 18-40'),
```

```
('AudID002', 'Female 60+'),
```

```
('AudID003', 'Male 40-60'),
```

```
('AudID004', 'Female 18-40'),
```

```
('AudID005', 'Male 60+'),
```

```
('AudID006', 'Seniors 60+'),
```

```
('AudID007', 'Adults 40-60'),
```

```
('AudID008', 'Teens 13-19'),
```

```
('AudID009', 'Male 18-40'),
```

```
('AudID010', 'Female 40-60');
```

```
INSERT INTO Locations (LocationsID, LocationsName) VALUES
```

```
('LocID001', 'USA'),
```

```
('LocID002', 'LATAM'),
```

```
('LocID003', 'Canada'),
```

```
('LocID004', 'Europe'),
```

```
('LocID005', 'Japan'),
```

```
('LocID006', 'UK'),
```

```
('LocID007', 'Australia'),
```

```
('LocID008', 'India');
```

```
INSERT INTO Campaigns (CampaignID, CampaignName, StartDate, EndDate, LocationID,  
ChannelID, ClientID, AudienceGroupID, Views, Likes, Clicks, Conversions, Expense,  
ExecutiveID) VALUES
```

```
(1, 'Campaign 1', '2023-12-18 00:00:00', '2024-01-10 00:00:00', 'LocID001', 'ChalD001',  
'CliID001', 'AudID001', 23458, 7718, 1056, 702, 13961.03, 'EmpID001'),
```

```
(2, 'Campaign 2', '2023-10-12 00:00:00', '2023-11-09 00:00:00', 'LocID002', 'ChalD002',  
'CliID002', 'AudID002', 92422, 8075, 1360, 182, 43804.31, 'EmpID002'),
```

```
(3, 'Campaign 3', '2023-05-18 00:00:00', '2023-06-04 00:00:00', 'LocID003', 'ChalD003',  
'CliID003', 'AudID003', 45934, 2446, 1655, 669, 36007.47, 'EmpID003'),
```

(4, 'Campaign 4', '2023-02-23 00:00:00', '2023-03-09 00:00:00', 'LocID004', 'ChalD004', 'CliID004', 'AudID004', 30391, 1700, 2669, 243, 37425.85, 'EmpID003'),

(5, 'Campaign 5', '2023-11-20 00:00:00', '2023-12-11 00:00:00', 'LocID003', 'ChalD004', 'CliID005', 'AudID005', 52042, 191, 4242, 753, 48590.34, 'EmpID004'),

(6, 'Campaign 6', '2023-09-19 00:00:00', '2023-10-05 00:00:00', 'LocID001', 'ChalD001', 'CliID006', 'AudID005', 40365, 7775, 1499, 945, 26693.82, 'EmpID004'),

(7, 'Campaign 7', '2023-06-19 00:00:00', '2023-07-09 00:00:00', 'LocID005', 'ChalD004', 'CliID003', 'AudID006', 51437, 4435, 97, 498, 4274.45, 'EmpID003'),

(8, 'Campaign 8', '2023-07-08 00:00:00', '2023-07-20 00:00:00', 'LocID006', 'ChalD005', 'CliID007', 'AudID007', 63951, 4627, 1858, 798, 7863.2, 'EmpID002'),

(9, 'Campaign 9', '2023-04-24 00:00:00', '2023-05-17 00:00:00', 'LocID007', 'ChalD002', 'CliID005', 'AudID001', 24495, 8354, 4208, 527, 14404.95, 'EmpID004'),

(10, 'Campaign 10', '2023-06-05 00:00:00', '2023-06-07 00:00:00', 'LocID001', 'ChalD005', 'CliID008', 'AudID005', 49877, 8180, 905, 937, 26039.88, 'EmpID002'),

(11, 'Campaign 11', '2023-09-23 00:00:00', '2023-10-04 00:00:00', 'LocID007', 'ChalD001', 'CliID009', 'AudID005', 76265, 894, 2198, 19, 13777.14, 'EmpID005'),

(12, 'Campaign 12', '2023-12-24 00:00:00', '2024-01-21 00:00:00', 'LocID002', 'ChalD005', 'CliID010', 'AudID005', 12061, 5983, 3720, 193, 21295.14, 'EmpID005'),

(13, 'Campaign 13', '2023-05-22 00:00:00', '2023-06-03 00:00:00', 'LocID001', 'ChalD002', 'CliID011', 'AudID004', 46002, 7059, 1447, 763, 35410.1, 'EmpID006'),

(14, 'Campaign 14', '2023-04-27 00:00:00', '2023-05-10 00:00:00', 'LocID001', 'ChalD003', 'CliID012', 'AudID007', 53589, 8009, 3579, 381, 42260.22, 'EmpID007'),

(15, 'Campaign 15', '2023-02-13 00:00:00', '2023-02-23 00:00:00', 'LocID005', 'ChalD001', 'CliID006', 'AudID007', 52012, 2398, 311, 106, 44445.65, 'EmpID004'),

(16, 'Campaign 16', '2023-11-02 00:00:00', '2023-11-20 00:00:00', 'LocID003', 'ChalD005', 'CliID001', 'AudID005', 46834, 6492, 3250, 699, 10339.5, 'EmpID001'),

(17, 'Campaign 17', '2023-10-23 00:00:00', '2023-11-16 00:00:00', 'LocID008', 'ChalD003', 'CliID013', 'AudID006', 87131, 3958, 4546, 221, 18477.84, 'EmpID003'),

(18, 'Campaign 18', '2023-03-28 00:00:00', '2023-04-10 00:00:00', 'LocID005', 'ChalD005', 'CliID006', 'AudID006', 72204, 6080, 1948, 237, 33988.25, 'EmpID004'),

(19, 'Campaign 19', '2023-12-04 00:00:00', '2023-12-26 00:00:00', 'LocID002', 'ChalD003', 'CliID004', 'AudID008', 18166, 2849, 4847, 354, 27654.57, 'EmpID003'),

(20, 'Campaign 20', '2023-11-11 00:00:00', '2023-11-16 00:00:00', 'LocID007', 'ChalD002', 'CliID014', 'AudID009', 27973, 9607, 2657, 890, 10983.11, 'EmpID001');

## 2.3 Test database

### 2.3.1 Average Cost Per Click

```
1  SELECT
2      AVG(Expense / Clicks) AS AverageCostPerClick
3  FROM
4      Campaigns
5  WHERE
6      Clicks > 0;
```

	AverageCostPerClick
1	20.834158210188146

### 2.3.2 Cost Per Conversion

```
1  SELECT
2      AVG(Expense / Conversions) AS CostPerConversion
3  FROM
4      Campaigns
5  WHERE
6      Conversions > 0;
```

	CostPerConversion
1	118.95485967140769

### 2.3.3 Audience Segment Performance

```

1 SELECT
2     a.AudienceGroup,
3     SUM(c.Clicks) AS TotalClicks,
4     SUM(c.Conversions) AS TotalConversions,
5     SUM(c.Expense) AS TotalCost,
6     AVG(c.Expense / c.Clicks) AS AverageCostPerClick,
7     AVG(c.Expense / c.Conversions) AS CostPerConversion
8 FROM
9     Campaigns c
10 RIGHT JOIN AudienceGroups a ON c.AudienceGroupID = a.AudienceGroupID
11 GROUP BY
12     a.AudienceGroup;

```

	AudienceGroup	TotalClicks	TotalConversions	TotalCost	AverageCostPerClick	CostPerConversion
1	Adults 18-40	5264	1229	28365.980000000003	8.321950955611246	23.61068904512453
2	Adults 40-60	5748	1285	94569.07	52.98398812767308	180.02381052976622
3	Female 18-40	4116	1006	72835.95	19.246906604872084	100.2124434358634
4	Female 40-60	(NULL)	(NULL)	(NULL)	(NULL)	(NULL)
5	Female 60+	1360	182	43804.31	32.209051470588236	240.68302197802197
6	Male 18-40	2657	890	10983.11	4.133650733910425	12.340573033707866
7	Male 40-60	1655	669	36007.47	21.756779456193353	53.82282511210762
8	Male 60+	15814	3546	146735.82	12.201600306186016	161.8015193807797

### 2.3.4 Each Channel Monthly Performance Trends.

```

1 SELECT
2     ch.ChannelName,
3     strftime('%m', c.StartDate) AS Month,
4     SUM(c.Clicks) AS TotalClicks,
5     SUM(c.Conversions) AS TotalConversions,
6     SUM(c.Expense) AS TotalCost,
7     AVG(c.Expense / c.Clicks) AS AverageCostPerClick,
8     AVG(c.Expense / c.Conversions) AS CostPerConversion
9 FROM
10     Campaigns c
11 RIGHT JOIN Channels Ch ON Ch.ChannelID = c.ChannelID
12 GROUP BY
13     ch.ChannelName,
14     strftime('%m', c.StartDate)
15 ORDER BY
16     ch.ChannelName,
17     Month;

```

	ChannelName	Month	TotalClicks	TotalConversions	TotalCost	AverageCostPerClick	CostPerConversion
1	Email	04	4208	527	14404.95	3.423229562737643	27.333870967741937
2	Email	05	1447	763	35410.1	24.471389080856945	46.40904325032765
3	Email	10	1360	182	43804.31	32.209051470588236	240.68302197802197
4	Email	11	2657	890	10983.11	4.133650733910425	12.340573033707866
5	Facebook	03	1948	237	33988.25	17.447766940451746	143.41033755274262
6	Facebook	06	905	937	26039.88	28.773348066298343	27.79069370330843

### 3. Using spreadsheet to clean and rebuild the data file

<https://docs.google.com/spreadsheets/d/1AV6kS-GEf-QN6X-NBTJSSxF-s4Nyr6Eu4xM4zFMS9qc/edit?usp=sharing>

Find the ERROR

fx =+61(8)2418484012			
	I	J	K
	403-104-0984x370	Justin Cole	Adults 40-60
	(644)568-8783	Annette Rice	Female 40-60
.com	011-835-8647x901	Dennis Carr	Male 18-40
	399.882.0614x59395	Dustin Ramirez	Female 40-60
	#ERROR!		-19
ild.cor	1-349-058-6674x35806	Error	0-60
	358.421.6618x006	Formula parse error.	-19
	498.978.7718x501		0+
n.biz	(363)957-0616x7906	Danielle Hernandez	teens 13-19
	1-519-470-8931x1832	Traci Holden	Adults 40-60
1	(506)912-2179x80069	Matthew Davis	Seniors 60+
1	(506)912-2179x80069	Matthew Davis	Female 18-40
	048-941-6229	Bradley Schroeder	Male 40-60
	1-628-025-3550x66010	April Brewer	Male 18-40
	356-608-6335x0070	Mark Garcia	Adults 18-40

Fix them

fx

' +61(8)2418484012

	I	J	K	L	M
	403-104-0784x370	Justin Cole	Adults 40-60	Japan	238:
	(644)568-8783	Annette Rice	Female 40-60	Europe	105:
om	011-835-8647x901	Dennis Carr	Male 18-40	UK	761:
	399.882.0614x59395	Dustin Ramirez	Female 40-60	Canada	929:
	+61(8)2418484012	Julia Moore	Teens 13-19	UK	388:
l.cor	1-349-058-6674x35806				
	358.421.6618x006				
	498.978.7718x501				
biz	(363)957-0616x7906				
	1-519-470-8931x1832				
	(506)912-2179x80069				
	(506)912-2179x80069				
	048-941-6229				
	1-628-025-3550x66010				
	356-608-6335x0070				
	(669)708-2006				
	2545622603				
	562-293-0799x4586				
	1-351-320-8584x4902				
	048-941-6229				
	048-941-6229				
	(669)708-2006				
	1-844-245-2487x0945				
	5835472748				
	123-800-5701				
	1-185-168-7120				
	(186)438-4897				
	3724028579				
	(320)185-3187x395				
	+55(8)0039387927				
	1-479-099-8390x29817				
	+93(4)8330793693				
	2545622603				
	1-519-470-8931x1832	Traci Holden	Teens 13-19	UK	679:

Find and replace

Find

=

Replace with

'

Search

All sheets

☐ Match case

☐ Match entire cell contents

☐ Search using regular expressions [Help](#)

☒ Also search within formulas

☐ Also search within links

Replaced 125 instances of = with '

Find

Replace

Replace all

Done

## Rebuild

marketflash\_marketing\_data\_2023

creat database

File Edit View Insert Format Data Tools Extensions Help

100% \$ % .00 123 Default... 11 + B I Z A

P-R	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	CampaignID	CampaignName	StartDate	EndDate	LocationID	ChannelID	ClientID	AudienceGroupID	Views	Likes	Clicks	Conversions	Expense	ExecutiveID
2	1	Campaign 1	2023-12-18 0:00:00	2024-01-10 0:00:00	LocID001	ChalID001	ClidD001	AudID001	23458	7718	1056	702	13961.03	EmpID001
3	2	Campaign 2	2023-10-12 0:00:00	2023-11-09 0:00:00	LocID002	ChalID002	ClidD002	AudID002	92422	8075	1360	182	43804.31	EmpID002
4	3	Campaign 3	2023-05-18 0:00:00	2023-06-04 0:00:00	LocID003	ChalID003	ClidD003	AudID003	45934	2446	1655	669	36007.47	EmpID003
5	4	Campaign 4	2023-02-23 0:00:00	2023-03-09 0:00:00	LocID004	ChalID004	ClidD004	AudID004	30391	1700	2669	243	37425.85	EmpID003
6	5	Campaign 5	2023-11-20 0:00:00	2023-12-11 0:00:00	LocID003	ChalID004	ClidD005	AudID005	52042	191	4242	753	48590.34	EmpID004
7	6	Campaign 6	2023-09-19 0:00:00	2023-10-05 0:00:00	LocID001	ChalID001	ClidD006	AudID005	40365	7775	1499	945	26693.82	EmpID004
8	7	Campaign 7	2023-06-19 0:00:00	2023-07-09 0:00:00	LocID005	ChalID004	ClidD003	AudID006	51437	4435	97	498	4274.45	EmpID003
9	8	Campaign 8	2023-07-08 0:00:00	2023-07-20 0:00:00	LocID006	ChalID005	ClidD007	AudID007	63951	4627	1858	798	7863.2	EmpID002
10	9	Campaign 9	2023-04-24 0:00:00	2023-05-17 0:00:00	LocID007	ChalID002	ClidD005	AudID001	24495	8354	4208	527	14404.95	EmpID004
11	10	Campaign 10	2023-06-05 0:00:00	2023-06-07 0:00:00	LocID001	ChalID005	ClidD008	AudID005	49877	8180	905	937	26039.88	EmpID002
12	11	Campaign 11	2023-09-23 0:00:00	2023-10-04 0:00:00	LocID007	ChalID001	ClidD009	AudID005	76265	894	2198	19	13777.14	EmpID005
13	12	Campaign 12	2023-12-24 0:00:00	2024-01-21 0:00:00	LocID002	ChalID005	ClidD010	AudID005	12061	5983	3720	193	21295.14	EmpID005
14	13	Campaign 13	2023-05-22 0:00:00	2023-06-03 0:00:00	LocID001	ChalID002	ClidD011	AudID004	46002	7059	1447	763	35410.1	EmpID006
15	14	Campaign 14	2023-04-27 0:00:00	2023-05-10 0:00:00	LocID001	ChalID003	ClidD012	AudID007	53589	8009	3579	381	42260.22	EmpID007
16	15	Campaign 15	2023-02-13 0:00:00	2023-02-23 0:00:00	LocID005	ChalID001	ClidD006	AudID007	52012	2398	311	106	44445.65	EmpID004
17	16	Campaign 16	2023-11-02 0:00:00	2023-11-20 0:00:00	LocID003	ChalID005	ClidD001	AudID005	46834	6492	3250	699	10339.5	EmpID001
18	17	Campaign 17	2023-10-23 0:00:00	2023-11-16 0:00:00	LocID008	ChalID003	ClidD013	AudID006	87131	3958	4546	221	18477.84	EmpID003
19	18	Campaign 18	2023-03-28 0:00:00	2023-04-10 0:00:00	LocID005	ChalID005	ClidD006	AudID006	72204	6080	1948	237	33988.25	EmpID004
20	19	Campaign 19	2023-12-04 0:00:00	2023-12-26 0:00:00	LocID002	ChalID003	ClidD004	AudID008	18166	2849	4847	354	27654.57	EmpID003
21	20	Campaign 20	2023-11-11 0:00:00	2023-11-16 0:00:00	LocID007	ChalID002	ClidD014	AudID009	27973	9607	2657	890	10983.11	EmpID001
22	21	Campaign 21	2023-12-27 0:00:00	2024-01-11 0:00:00	LocID001	ChalID002	ClidD012	AudID003	22897	6256	2286	531	43219.64	EmpID007
23	22	Campaign 22	2023-10-01 0:00:00	2023-10-28 0:00:00	LocID004	ChalID005	ClidD015	AudID009	62876	4035	3722	260	30201.78	EmpID003
24	23	Campaign 23	2023-06-19 0:00:00	2023-06-24 0:00:00	LocID005	ChalID005	ClidD016	AudID008	26583	9185	1413	581	49463.69	EmpID008
25	24	Campaign 24	2023-07-06 0:00:00	2023-07-20 0:00:00	LocID003	ChalID004	ClidD017	AudID009	1215	1832	3794	425	2983.58	EmpID009
26	25	Campaign 25	2023-07-15 0:00:00	2023-08-13 0:00:00	LocID007	ChalID001	ClidD001	AudID010	79276	2404	3408	208	12205.58	EmpID001
27	26	Campaign 26	2023-08-06 0:00:00	2023-08-09 0:00:00	LocID002	ChalID003	ClidD018	AudID009	63453	3788	2515	492	29386.34	EmpID010
28	27	Campaign 27	2023-09-27 0:00:00	2023-10-02 0:00:00	LocID005	ChalID003	ClidD019	AudID003	52218	3238	2450	997	41018.12	EmpID003
29	28	Campaign 28	2023-11-30 0:00:00	2023-12-07 0:00:00	LocID002	ChalID001	ClidD020	AudID002	42299	9326	2552	763	29155.51	EmpID005

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AudienceGroups

Channels

Locations

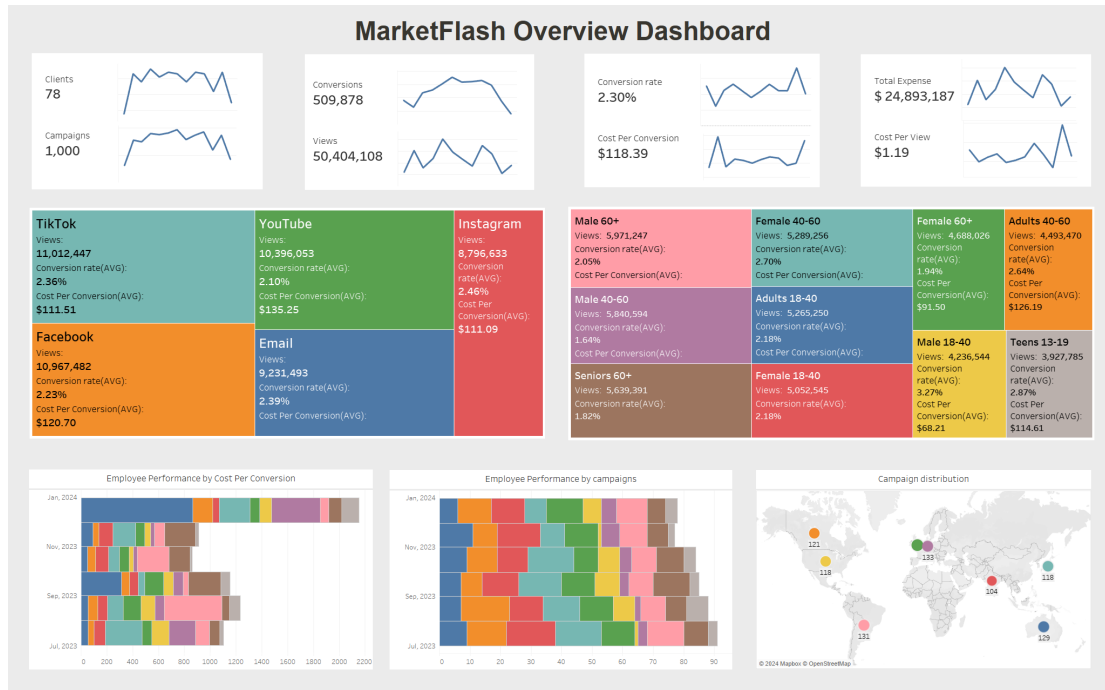
Employees

Clients

Campaigns

## 4. Dashboard

[https://public.tableau.com/views/Book2\\_17186998814730/Dashboard1?:language=en-US&:sid=&:display\\_count=n&:origin=viz\\_share\\_link](https://public.tableau.com/views/Book2_17186998814730/Dashboard1?:language=en-US&:sid=&:display_count=n&:origin=viz_share_link)



## 5. Recording

<https://www.youtube.com/watch?v=BpLr1Bhr5Bo>

