

## **1. Introduction**

The primary stages that comprise in building a database are collecting the database's requirements, translating these requirements into a logical database design, creating various tables from the design, loading data into those tables, and finally manipulating the data fed into the database. The goal of this project is to ensure that we understand and perform the tasks required to manage a database built using Oracle Apex.

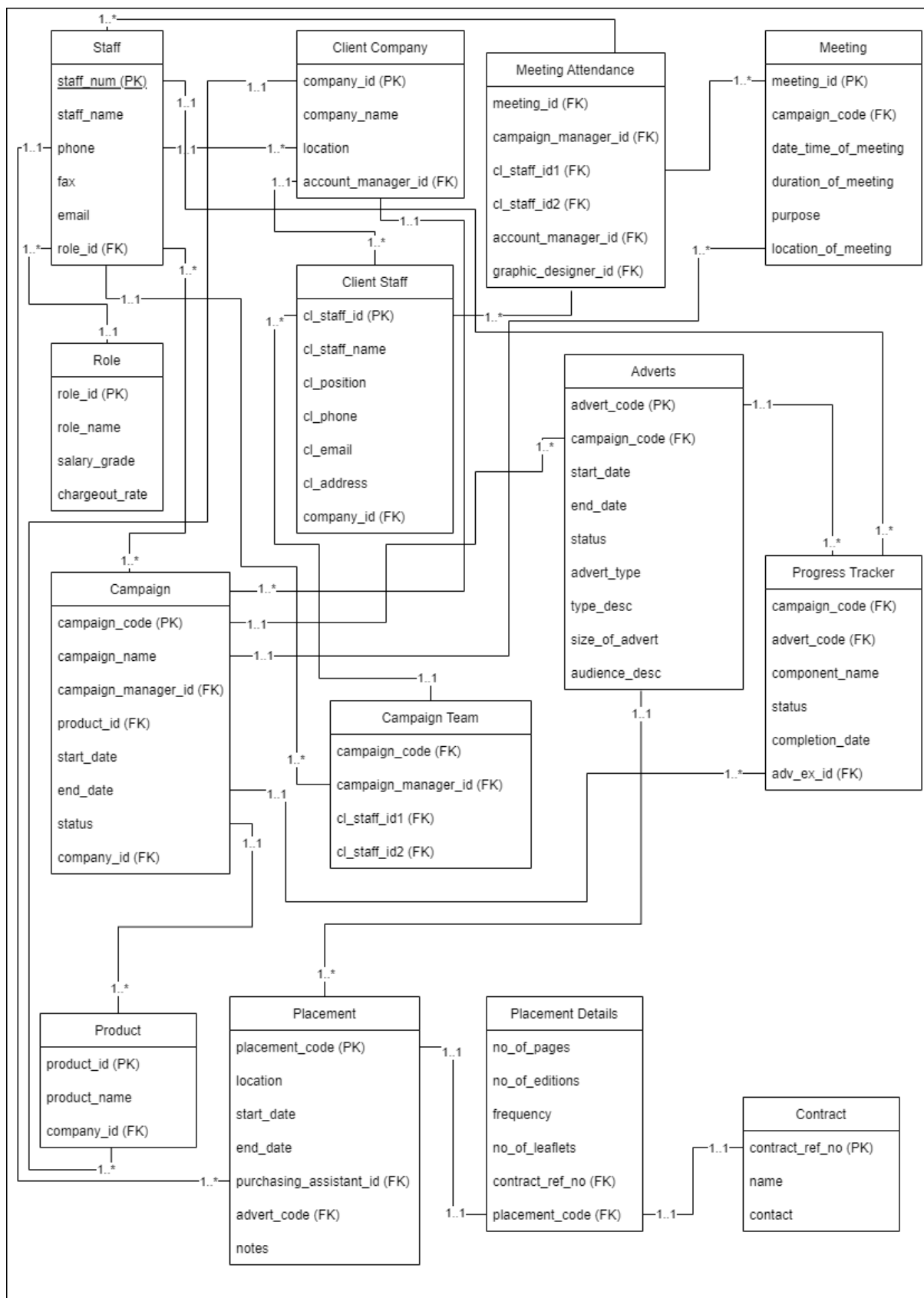
The aims of this project consist of:

1. Identifying the database requirements based on the given problem statement and the data to be stored in the database.
2. Create a logical database design based on the database requirements, then build the physical database and load it with data.
3. After loading the database, run sample queries that on execution would provide appropriate and relevant output.
4. Understanding basic SQL syntax and DDL and DML commands.
5. Implementation of JOINS, GROUP BY, ORDER BY and other subqueries.

The objectives of this project would be as follows:

1. Learning to design an entity-relationship diagram and how various tables are linked to each other with certain constraints and cardinalities.
2. Exploring the various features of Oracle Apex when we convert our logical database design (ER diagram) into a physical database using CREATE TABLE queries.
3. Understanding how to introduce constraints using Data Definition Language Commands.
4. Providing satisfactorily relevant outputs when manipulating with the database tables using Data Manipulation Language Commands.
5. Getting a thorough understanding of how JOINS function.
6. Grasping the concept of introducing subqueries to SQL SELECT statements.
7. Understanding GROUP and ORDER functions.
8. Learning about combining 2 independent SQL queries to generate a sustainable output.

## 2. Class Diagram



### Assumption and Constraints:

- 1) The column of status has a datatype of number and the reason it is kept as binary so as to just be denoted by 0 and 1 on whether the status is either in progress or completed. This helps if we need to filter the which campaigns or components are completed and which ones are still in progress
- 2) I have kept the start dates and end dates in all the tables they are provided in the same for each individual entry. So, for example, every date record for Campaign C111 will have the same dates throughout Advert, Placement and so on. There was no particular reason to do this but just save some time and reduce the redundancies caused due to wrong dates.
- 3) All the foreign keys are constraints those are added by using the CREATE TABLE statements. I did not use the ALTER TABLE command to introduce them in this case as the job of inserting a FOREIGN KEY through the CREATE TABLE statement is much more time-saving, memory-saving and convenient.
- 4) I have just used 1 meeting per campaign due to time constraints. But all the data can be easily fetched and evaluated using SQL.

### 3. SQL Queries

#### 1) --CAMPAIGN DETAILS--

(Used to get the details about each column in the campaign table and not just having Foreign Key ID's flashing through the database)

```
SELECT      CAMPAIGN.CAMPAIGN_CODE,      CAMPAIGN.CAMPAIGN_NAME,
PRODUCT.PRODUCT_NAME,                    CLIENT_COMPANY.COMPANY_NAME,
STAFF.STAFF_NAME AS CAMPAIGN_MANAGER,    CAMPAIGN.START_DATE,
CAMPAIGN.END_DATE, CAMPAIGN.STATUS
```

```
FROM PRODUCT, CAMPAIGN, CLIENT_COMPANY, STAFF
```

```
WHERE PRODUCT.PRODUCT_ID = CAMPAIGN.PRODUCT_ID
```

```
AND CLIENT_COMPANY.COMPANY_ID = CAMPAIGN.COMPANY_ID
```

```
AND CAMPAIGN.CAMPAIGN_MANAGER_ID = STAFF.STAFF_NUM
```

CAMPAIGN_CODE	CAMPAIGN_NAME	PRODUCT_NAME	COMPANY_NAME	CAMPAIGN_MANAGER	START_DATE	END_DATE	STATUS
C111	GAMMAKED	Pannier	Wordtune	Benedicta Byron	12/08/2007	05/25/2016	0
C112	ADVAIRDISKUS	Pannier	Youbridge	Fitzgerald Geratasch	10/05/2005	03/04/2020	1
C113	Terocin	Ronstring	Twitterlist	Collen Tanman	07/12/2007	09/06/2014	0
C114	Ibuprofen	Hatity	Ailane	Kayle Gellately	06/27/2007	10/31/2018	1

#### 2) --CAMPAIGN PLAN--

(It is a summary form used to confirm the details of the campaign to be developed)

```
SELECT  CLIENT_COMPANY.COMPANY_NAME,  PRODUCT.PRODUCT_NAME,
CAMPAIGN.CAMPAIGN_CODE, CAMPAIGN.CAMPAIGN_NAME,
```

```
ADVERT.ADVERT_CODE,    ADVERT.ADVERT_TYPE,    ADVERT.TYPE_DESC,
ADVERT.START_DATE, ADVERT.END_DATE
```

```
FROM CLIENT_COMPANY, PRODUCT, CAMPAIGN, ADVERT
```

```
WHERE CLIENT_COMPANY.COMPANY_ID = CAMPAIGN.COMPANY_ID
```

```
AND PRODUCT.PRODUCT_ID = CAMPAIGN.PRODUCT_ID
```

```
AND CAMPAIGN.CAMPAIGN_CODE = ADVERT.CAMPAIGN_CODE
```

COMPANY_NAME	PRODUCT_NAME	CAMPAIGN_CODE	CAMPAIGN_NAME	ADVERT_CODE	ADVERT_TYPE	TYPE_DESC	START_DATE	END_DATE
Wordtune	Pannier	C111	GAMMAKED	A111	Newspaper	The Guardian	12/08/2007	05/25/2016
Youbridge	Pannier	C112	ADVAIRDISKUS	A112	Magazine	Discovery Girls	10/05/2005	03/04/2020
Twitterlist	Ronstring	C113	Terocin	A113	Radio	Sheldon	07/12/2007	09/06/2014
Ailane	Hatity	C114	Ibuprofen	A114	TV	Monica	06/27/2007	10/31/2018

### 3) --PLACEMENT LOCATION RECORD--

(Developed as per the design provided in the project. Joins 6 tables to generate a specific report per placement)

```

SELECT          CAMPAIGN.CAMPAIGN_CODE,          ADVERT.ADVERT_CODE,
ADVERT.ADVERT_TYPE,          PLACEMENT.PLACEMENT_CODE,
CONTRACT.CONTRACT_REF_NO,    CONTRACT.NAME,    CONTRACT.CONTACT,
CAMPAIGN.START_DATE, CAMPAIGN.END_DATE,

PLACEMENT_DETAILS.NO_OF_PAGES, PLACEMENT_DETAILS.NO_OF_EDITIONS,
PLACEMENT_DETAILS.FREQUENCY,  PLACEMENT_DETAILS.NO_OF_LEAFLETS,
STAFF.STAFF_NAME

FROM CAMPAIGN, CONTRACT, PLACEMENT, PLACEMENT_DETAILS, ADVERT,
STAFF

WHERE CAMPAIGN.CAMPAIGN_CODE = ADVERT.CAMPAIGN_CODE

AND PLACEMENT.ADVERT_CODE = ADVERT.ADVERT_CODE

AND          PLACEMENT_DETAILS.CONTRACT_REF_NO          =
CONTRACT.CONTRACT_REF_NO

AND          PLACEMENT_DETAILS.PLACEMENT_CODE          =
PLACEMENT.PLACEMENT_CODE

```

CAMPAIGN_CODE	ADVERT_CODE	ADVERT_TYPE	PLACEMENT_CODE	CONTRACT_REF_NO	NAME	CONTACT	START_DATE	END_DATE	NO_OF_PAGES	NO_OF_EDITIONS	FREQUENCY	NO_OF_LEAFLETS	STAFF_NAME
CT11	A111	Newspaper	PL1	CN1	It	4199791090	12/08/2007	05/25/2016	10	3	EVERY DAY	1	Ulick Wingfield
CT11	A111	Newspaper	PL101	CN1	It	4199791090	12/08/2007	05/25/2016	10	3	EVERY DAY	1	Ulick Wingfield
CT11	A161	TV	PL51	CN61	Sonair	3976221724	12/08/2007	05/25/2016	0	0	15 MINUTES	0	Ulick Wingfield
CT11	A161	TV	PL151	CN61	Sonair	3976221724	12/08/2007	05/25/2016	0	0	15 MINUTES	0	Ulick Wingfield

### 4) --HEADURA CAMPAIGN INVOLVEMENT--

(Details of every employee of Headura associated with a campaign)

```

SELECT          CAMPAIGN.CAMPAIGN_CODE,          CAMPAIGN.CAMPAIGN_NAME,
CLIENT_COMPANY.COMPANY_NAME AS CLIENT_COMPANY, STAFF.STAFF_NUM,
STAFF.STAFF_NAME, ROLE.ROLE_NAME AS ROLE, STAFF.STAFF_PHONE,

STAFF.STAFF_FAX, STAFF.STAFF_EMAIL, PRODUCT.PRODUCT_NAME,

CAMPAIGN.START_DATE, CAMPAIGN.END_DATE, CAMPAIGN.STATUS

FROM ROLE, STAFF, CAMPAIGN, PRODUCT, CLIENT_COMPANY

WHERE STAFF.STAFF_NUM = CAMPAIGN.CAMPAIGN_MANAGER_ID

AND PRODUCT.PRODUCT_ID = CAMPAIGN.PRODUCT_ID

AND CLIENT_COMPANY.COMPANY_ID = CAMPAIGN.COMPANY_ID

AND ROLE.ROLE_ID = STAFF.ROLE_ID

```

CAMPAIGN_CODE	CAMPAIGN_NAME	CLIENT_COMPANY	STAFF_NUM	STAFF_NAME	ROLE	STAFF_PHONE	STAFF_FAX	STAFF_EMAIL	PRODUCT_NAME	START_DATE	END_DATE	STATUS
CT11	GAMMAKED	Wordtune	6	Benedicta Byron	Campaign Manager	195622655	4083220414	bbyron6@ucla.gov	Pannier	12/06/2007	05/25/2016	0
CT12	ADVARDISKUS	Youbridge	8	Fitzgerald Geratsch	Campaign Manager	4170014421	9843240782	fgeratsch7@un.org	Pannier	10/05/2005	03/04/2020	1
CT13	Tercin	Twitterlist	16	Colten Terman	Campaign Manager	9603472492	4646663999	cterman7@glob.com	Ronstring	07/12/2007	09/06/2014	0
CT14	Isuprofen	Allane	18	Kayle Gellandly	Campaign Manager	545897861	4028159446	kgellandly@uoz.ru	Hatty	06/21/2007	10/31/2018	1

- 5) --CLIENT CAMPAIGN INVOLVEMENT—  
(Details of all the clients associated to a campaign)

```
SELECT CAMPAIGN_TEAM.CAMPAIGN_CODE,    CLIENT_STAFF.CL_STAFF_ID,
CLIENT_STAFF.CL_STAFF_NAME,            CLIENT_STAFF.CL_STAFF_POSITION,
CLIENT_STAFF.CL_STAFF_PHONE, CLIENT_STAFF.CL_STAFF_EMAIL
```

```
FROM CAMPAIGN_TEAM INNER JOIN CLIENT_STAFF
```

```
ON CAMPAIGN_TEAM.CL_STAFF_ID1 = CLIENT_STAFF.CL_STAFF_ID
```

```
UNION
```

```
SELECT CAMPAIGN_TEAM.CAMPAIGN_CODE,    CLIENT_STAFF.CL_STAFF_ID,
CLIENT_STAFF.CL_STAFF_NAME,            CLIENT_STAFF.CL_STAFF_POSITION,
CLIENT_STAFF.CL_STAFF_PHONE, CLIENT_STAFF.CL_STAFF_EMAIL
```

```
FROM CAMPAIGN_TEAM INNER JOIN CLIENT_STAFF
```

```
ON CAMPAIGN_TEAM.CL_STAFF_ID2 = CLIENT_STAFF.CL_STAFF_ID
```

CAMPAIGN_CODE	CL_STAFF_ID	CL_STAFF_NAME	CL_STAFF_POSITION	CL_STAFF_PHONE	CL_STAFF_EMAIL
CT11	901	Lois Acorn	Account Executive	8993867224	lacorn0@imagedhack.us
CT11	951	Charmene Domerc	Quality Control Specialist	7106210129	cdomerc1@gnips.gov
CT12	902	Nerti Rainsdon	VP Quality Control	78020779	nrainsdon1@nrea.com
CT12	952	Irving Dameisale	Financial Advisor	8566109295	idameisale11@icmonitor.com

- 6) --CLIENT MEETING ATTENDANCE—  
(To keep a record of how many people from the client side have attended the meetings)

```
SELECT      MEET_ATTENDANCE.MEETING_ID      AS      MEETING_ID,
CLIENT_STAFF.CL_STAFF_ID AS CL_STAFF_ID, CLIENT_STAFF.CL_STAFF_NAME
AS      CL_STAFF_NAME,      CLIENT_STAFF.CL_STAFF_POSITION      AS
CL_STAFF_POSITION
```

```
FROM MEET_ATTENDANCE INNER JOIN CLIENT_STAFF
```

```
ON MEET_ATTENDANCE.CL_STAFF_ID1 = CLIENT_STAFF.CL_STAFF_ID
```

```
UNION
```

```
SELECT      MEET_ATTENDANCE.MEETING_ID      AS      MEETING_ID,
CLIENT_STAFF.CL_STAFF_ID AS CL_STAFF_ID, CLIENT_STAFF.CL_STAFF_NAME
AS      CL_STAFF_NAME,      CLIENT_STAFF.CL_STAFF_POSITION      AS
CL_STAFF_POSITION
```

```
FROM MEET_ATTENDANCE INNER JOIN CLIENT_STAFF
```

ON MEET\_ATTENDANCE.CL\_STAFF\_ID2 = CLIENT\_STAFF.CL\_STAFF\_ID

MEETING_ID	CL_STAFF_ID	CL_STAFF_NAME	CL_STAFF_POSITION
M1	901	Lois Acom	Account Executive
M1	951	Charmane Domerc	Quality Control Specialist
M10	910	Ruthann Smittoune	Food Chemist
M10	960	Jeannie Surcombe	Automation Specialist II

7) -- HEADURA MEETING ATTENDANCE –

(To keep a record of how many people from the Headura have attended the meetings)

```
SELECT MEET_ATTENDANCE.MEETING_ID AS MEETING_ID, STAFF.STAFF_NUM
AS STAFF_ID, STAFF.STAFF_NAME AS HEADURA_STAFF_NAME, STAFF.ROLE_ID
FROM MEET_ATTENDANCE INNER JOIN STAFF
```

ON MEET\_ATTENDANCE.CAMPAIGN\_MANAGER\_ID = STAFF.STAFF\_NUM

UNION

```
SELECT MEET_ATTENDANCE.MEETING_ID AS MEETING_ID, STAFF.STAFF_NUM
AS STAFF_ID, STAFF.STAFF_NAME AS HEADURA_STAFF_NAME, STAFF.ROLE_ID
FROM MEET_ATTENDANCE INNER JOIN STAFF
```

ON MEET\_ATTENDANCE.ACCOUNT\_MANAGER\_ID = STAFF.STAFF\_NUM

UNION

```
SELECT MEET_ATTENDANCE.MEETING_ID AS MEETING_ID, STAFF.STAFF_NUM
AS STAFF_ID, STAFF.STAFF_NAME AS HEADURA_STAFF_NAME, STAFF.ROLE_ID
FROM MEET_ATTENDANCE INNER JOIN STAFF
```

ON MEET\_ATTENDANCE.GRAPHIC\_DESIGNER\_ID = STAFF.STAFF\_NUM

ORDER BY MEETING\_ID

MEETING_ID	STAFF_ID	HEADURA_STAFF_NAME	ROLE_ID
M1	1	Ulick Wingfield	R001
M1	5	Danell Rosander	R004
M1	6	Benedicta Byron	R003
M10	4	Hunfredo McCulloch	R001

8) --CAMPAIGN, ADVERT, PLACEMENT RELATION—

(Just to prove the relation of 1 campaign having multiple adverts and 1 advert having multiple placements as mentioned in the documentation)

```
SELECT          CAMPAIGN.CAMPAIGN_CODE,          ADVERT.ADVERT_CODE,
PLACEMENT.PLACEMENT_CODE
```

FROM CAMPAIGN, ADVERT, PLACEMENT

WHERE ADVERT.CAMPAIGN\_CODE = CAMPAIGN.CAMPAIGN\_CODE

AND PLACEMENT.ADVERT\_CODE = ADVERT.ADVERT\_CODE

ORDER BY CAMPAIGN.CAMPAIGN\_CODE

CAMPAIGN_CODE	ADVERT_CODE	PLACEMENT_CODE
C111	A111	PL1
C111	A161	PL51
C111	A111	PL101
C111	A161	PL151
C112	A162	PL52
C112	A162	PL152
C112	A112	PL102



#### **4. Conclusion**

In this project, Oracle Apex was explored as an online database system. The project began with an analysis of the provided problem statement to devise an optimal logical database design. Understanding the significance of relational database design and proficiency in SQL were crucial for addressing the problem effectively. The development of an entity-relationship diagram played a key role in establishing the relationship mapping. Subsequently, attention was shifted to the creation of the physical database design using CREATE TABLE statements as part of the data definition language. Considerations were made to introduce constraints and implement primary and foreign keys, along with utilizing ALTER TABLE statements as part of the data manipulation language.

Mock data from the Mockaroo website, was used to populate the tables in a meticulous manner to maintain data consistency and database continuity. With the tables populated, the project entered its penultimate stage, requiring a comprehensive understanding of SQL queries. By employing various SQL functionalities such as INNER JOIN, JOIN, ORDER BY, WHERE CLAUSE, and UNION, eight queries were formulated that fulfilled all the system requirements outlined in the problem statement. Attention was given to the complexity of the SQL statements, incorporating joins and other SQL functions as necessary.

Throughout the project, exposure was gained with regards to Oracle Apex and a deeper understanding was acquired of relational database. The provided resources facilitated the successful completion of the project. The project fostered a different perspective on SQL and inspired innovative ideas and approaches.

## Appendix

Here, I am just providing the snapshot of the first 10 rows of each of my tables. I could not possibly copy and paste the data from each table entirely, as most of the CSV files contain 50, 100, 200 data entries.

### 1. Advert Table Snapshot

ADVERT_CODE	CAMPAIGN_CODE	START_DATE	END_DATE	STATUS	ADVERT_TYPE	TYPE_DESC	SIZE_OF_ADVERT	AUDIENCE_DESC
A111	C111	12/08/2007	05/25/2016	0	Newspaper	The Guardian	24*24	Teenagers
A112	C112	10/05/2005	03/04/2020	1	Magazine	Discovery Girls	15*15	Girls
A113	C113	07/12/2007	09/06/2014	0	Radio	Sheldon	20 sec	Senior Citizens
A114	C114	06/27/2007	10/31/2018	1	TV	Monica	30 sec	All people
A115	C115	03/06/2005	03/30/2013	0	Cinema	Sky & Telescope	120 sec	All children
A116	C116	07/12/2004	12/20/2019	1	Poster	Aquaman	30*30	All people
A117	C117	04/22/2007	08/17/2018	1	Web	Jake	10*10	All
A118	C118	03/04/2008	04/18/2013	0	Leaflet	Motor Trend	10*10	All people
A119	C119	07/05/2008	02/16/2019	0	Newspaper	Car and Driver	24*30	All people

### 2. Campaign Table Snapshot

CAMPAIGN_CODE	CAMPAIGN_NAME	CAMPAIGN_MANAGER_ID	PRODUCT_ID	COMPANY_ID	START_DATE	END_DATE	STATUS
C111	GAMMAKED	6	PR1	COM1	12/08/2007	05/25/2016	0
C112	ADVAIRDISKUS	8	PR2	COM2	10/05/2005	03/04/2020	1
C113	Terocin	16	PR3	COM3	07/12/2007	09/06/2014	0
C114	Ibuprofen	18	PR4	COM4	06/27/2007	10/31/2018	1
C115	Diaper Rash	26	PR5	COM5	03/06/2005	03/30/2013	0
C116	Lamotrigine	28	PR6	COM6	07/12/2004	12/20/2019	1
C117	Ovaria Apis Special Order	36	PR7	COM7	04/22/2007	08/17/2018	1
C118	Green Guard Ibupro Relief	38	PR8	COM8	03/04/2008	04/18/2013	0
C119	Burkhart	6	PR9	COM9	07/05/2008	02/16/2019	0

### 3. Campaign Team Snapshot

CAMPAIGN_CODE	CAMPAIGN_MANAGER_ID	CL_STAFF_ID1	CL_STAFF_ID2
C111	6	901	951
C112	8	902	952
C113	16	903	953
C114	18	904	954
C115	26	905	955
C116	28	906	956
C117	36	907	957
C118	38	908	958
C119	6	909	959

### 4. Client Company Snapshot

company_id	company_name	location	staff_num
COM1	Wordtune	China	1
COM2	Youbridge	Indonesia	4
COM3	Twitterlist	China	11
COM4	Ailane	China	14
COM5	Innojam	Ethiopia	21
COM6	Mydeo	Portugal	24
COM7	Thoughtbridge	Czech Republic	31
COM8	Topiczoom	Czech Republic	34
COM9	Devpoint	France	1

## 5. Client Staff Snapshot

cl_staff_id	company_id	cl_staff_name	cl_staff_position	cl_staff_phone	cl_staff_email	cl_staff_address
901	COM1	Lois Acom	Account Executive	8993867224	lacom0@imageshack.us	90972 Green Plaza
902	COM2	Nerti Rainsdon	VP Quality Control	78020719	nrainsdon1@xrea.com	0 Debra Street
903	COM3	Paulina Sherrin	Software Consultant	761330283	psherrin2@adobe.com	20006 John Wall Hill
904	COM4	Toinette Gullen	Chemical Engineer	9755976310	tgullen3@yale.edu	83760 Southridge Plaza
905	COM5	Hilary Moralas	Senior Quality Engineer	3685028308	hmoralas4@is.gd	495 Michigan Pass
906	COM6	Amii Johl	Staff Scientist	6137070972	ajohl5@desdev.cn	4 Troy Alley
907	COM7	Magda Odgers	Account Coordinator	1664023461	modgers6@unblog.fr	52 Bashford Point
908	COM8	Kenny Vanyukov	Programmer I	1524339032	kvanyukov7@amazon.co.uk	1939 Barnett Road
909	COM9	Judith Moulder	Information Systems Manager	1764375734	jmoulder8@sakura.ne.jp	6 Esch Avenue

## 6. Contract Snapshot

CONTRACT_REF_NO	NAME	CONTACT
CN1	It	4199791090
CN2	Stronghold	1845848992
CN3	Ronstring	1564083628
CN4	Holdlamis	3686075959
CN5	Tempsoft	3545031836
CN6	Andalax	2113348616
CN7	Voltsillam	2339945036
CN8	It	8145549729
CN9	Namfix	5657748858

## 7. Meet Attendance Snapshot

MEETING_ID	CAMPAIGN_MANAGER_ID	CL_STAFF_ID1	CL_STAFF_ID2	ACCOUNT_MANAGER_ID	GRAPHIC_DESIGNER_ID
M1	6	901	951	1	5
M2	8	902	952	4	9
M3	16	903	953	11	15
M4	18	904	954	14	19
M5	26	905	955	21	25
M6	28	906	956	24	29
M7	36	907	957	31	35
M8	38	908	958	34	39
M9	6	909	959	1	5

## 8. Meeting Snapshot

MEETING_ID	CAMPAIGN_CODE	TIME_OF_MEETING	DURATION_OF_MEETING	PURPOSE	LOCATION_OF_MEETING
M1	C111	08-DEC-07 09.00.00 AM	60	General Purpose Meeting	CLIENT HO
M2	C112	05-OCT-05 09.00.00 AM	90	Budget Discussion	HEADURA HO
M3	C113	12-JUL-07 09.00.00 AM	120	Design Review	CLIENT HO
M4	C114	27-JUN-07 09.00.00 AM	180	General Purpose Meeting	HEADURA HO
M5	C115	06-MAR-05 09.00.00 AM	60	Budget Discussion	CLIENT HO
M6	C116	07-DEC-04 09.00.00 AM	90	Design Review	HEADURA HO
M7	C117	22-APR-07 09.00.00 AM	120	General Purpose Meeting	CLIENT HO
M8	C118	04-MAR-08 09.00.00 AM	180	Budget Discussion	HEADURA HO
M9	C119	05-JUL-08 09.00.00 AM	60	Design Review	CLIENT HO

## 9. Placement Snapshot

PLACEMENT_CODE	LOCATION_OF_PLACEMENT	START_DATE	END_DATE	PURCHASING_ASSISTANT_ID	ADVERT_CODE	NOTES
PL1	Departmental Store	12/08/2007	05/25/2016	7	A111	
PL2	Departmental Store	10/05/2005	03/04/2020	10	A112	
PL3	Over-the-Air	07/12/2007	09/06/2014	17	A113	
PL4	Over-the-Air	06/27/2007	10/31/2018	20	A114	
PL5	Theatres	03/06/2005	03/30/2013	27	A115	
PL6	Doorsteps	07/12/2004	12/20/2019	30	A116	
PL7	Over-the-Air	04/22/2007	08/17/2018	37	A117	
PL8	Doorsteps	03/04/2008	04/18/2013	40	A118	
PL9	Departmental Store	07/05/2008	02/16/2019	7	A119	
PL10	Departmental Store	09/28/2004	07/22/2014	10	A120	

## 10.Placement Details Snapshot

NO_OF_PAGES	NO_OF_EDITIONS	FREQUENCY	NO_OF_LEAFLETS	CONTRACT_REF_NO	PLACEMENT_CODE
10	3	EVERY DAY	1	CN1	PL1
32	2	FORTNIGHT	2	CN2	PL2
0	0	15 MINUTES	0	CN3	PL3
0	0	15 MINUTES	0	CN4	PL4
0	0	90 MINUTES	0	CN5	PL5
1	2	EVERY WEEK	5	CN6	PL6
0	0	15 MINUTES	0	CN7	PL7
1	2	EVERY WEEK	5	CN8	PL8
10	3	EVERY DAY	1	CN9	PL9

## 11.Product Snapshot

product_id	product_name	company_id
PR1	Pannier	COM1
PR2	Pannier	COM2
PR3	Ronstring	COM3
PR4	Hatity	COM4
PR5	Flowdesk	COM5
PR6	Opela	COM6
PR7	Bitwolf	COM7
PR8	Greenlam	COM8
PR9	Fix San	COM9

## 12.Progress Tracker Snapshot

CAMPAIGN_CODE	ADVERT_CODE	COMPONENT_NAME	STATUS	ADV_EX_ID	COMPLETION_DATE
C111	A111	Photos, Text	0	2	05/25/2016
C112	A112	Photos, Text	1	3	03/04/2020
C113	A113	Sound Recording	0	12	09/06/2014
C114	A114	Graphics	1	13	10/31/2018
C115	A115	Graphics	0	22	03/30/2013
C116	A116	Photos, Text	1	23	12/20/2019
C117	A117	Graphics	1	32	08/17/2018
C118	A118	Photos, Text	0	33	04/18/2013
C119	A119	Photos, Text	0	2	02/16/2019

## 13.Role Snapshot

role_id	role_name	salary_grade	chargeout_rate
R001	Account Manager	B	30000
R002	Advertising Executive	C	20000
R003	Campaign Manager	A	40000
R004	Graphic Designer	C	20000
R005	Purchasing Assistant	C	20000

## 14.Staff Snapshot

staff_num	staff_name	staff_phone	staff_fax	staff_email	role_id
1	Ulick Wingfield	1308470967	6116983588	uwingfield0@jigsy.com	R001
2	Ursula Dyson	4477882580	8666782714	udyson1@addtoany.com	R002
3	Modestine Thaller	6377398107	3960808844	mthaller2@google.de	R002
4	Hunfredo McCulloch	6720643185	7618460965	hmcculloch3@goo.gl	R001
5	Danell Rosander	3093683890	2503882110	drosander4@unesco.org	R004
6	Benedicta Byron	1395622655	4083220414	bbyron5@usda.gov	R003
7	Gaven Haining	8586476420	3083463650	ghaining6@ebay.co.uk	R005
8	Fitzgerald Geratasch	4170014421	9843240782	fgeratasch7@un.org	R003
9	Maxie Petracco	9882474977	3598754922	mpetracco8@spiegel.de	R004