

Pragya Pramudita

CWID: A20430719

**Final Project****Table of Contents**

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Ashland Advertising Agency (AAA), a full - service agency, offers its advertising services (including marketing and media buying) to various retail enterprises. Your firm has commissioned you and your project team to create a database application to streamline their management of their clients.

All the phases are given below:

## Phase V Review of Current Project Status

In the previous phase of the project, investigation was done of the Ashland Advertising Agency (AAA), a full-service agency based on the various needs of the internal teams and customer. In that, the logical model of the database was decided along with setting up some of the key business rules like the number of advertising campaigns, different medias that are used, budget for any given project, etc.

Based the answer we got from the business rules, the database designed was in complete adherence to the above business rules with room for future improvements. The different media types were captured in media\_categories table, budgeting and costing was captured in the project table and so on.

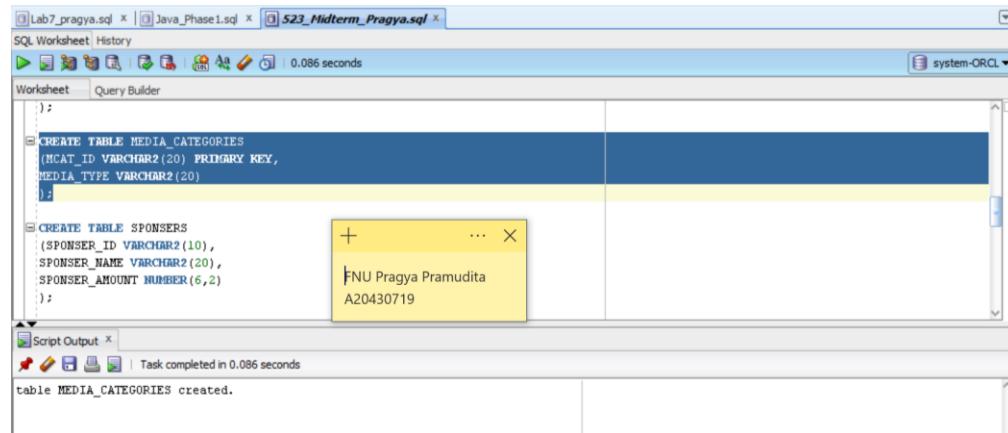
In adherence with database principles we build media\_allocation table so as to have normalized database, as the media\_allocation stores the relationship between tables like project, media, contract, agent, etc.

Thus, overall the team has diligently to adhere both business rules and data principles.

## Phase VI Designing the Physical Application

**Table creation:**

**1) Table media\_categories :**



The screenshot shows the Oracle SQL Developer interface. The top menu bar includes tabs for 'Lab7\_pragya.sql', 'Java\_Phase1.sql', and '523\_Midterm\_Pragya.sql'. The main workspace is titled 'Worksheet' and contains the following SQL code:

```
CREATE TABLE MEDIA_CATEGORIES
(MCAT_ID VARCHAR2(20) PRIMARY KEY,
MEDIA_TYPE VARCHAR2(20));
CREATE TABLE SPONSERS
(SPONSER_ID VARCHAR2(10),
SPONSER_NAME VARCHAR2(20),
SPONSER_AMOUNT NUMBER(6,2));

```

Below the worksheet, the 'Script Output' window displays the message: "table MEDIA\_CATEGORIES created." A tooltip in the center of the screen shows the details for a row in the SPONSERS table: "FNU Pragya Pramudita A20430719".

**2) SPONSORS TABLE**

The screenshot shows the Oracle SQL Developer interface. In the script editor, there is a code block for creating the SPONSORS table:

```
CREATE TABLE SPONSORS
(SPONSOR_ID VARCHAR2(10) PRIMARY KEY,
SPONSOR_NAME VARCHAR2(20),
SPONSOR_AMOUNT NUMBER(6,2)
);
DROP TABLE SPONSORS;
```

Below the code, the output window shows the message "table SPONSORS created." and a yellow tooltip with the user's information:

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Script Output x | Task completed in 0.051 seconds

**3) OUTLETS TABLE**

The screenshot shows the Oracle SQL Developer interface. In the script editor, there is a code block for creating the OUTLETS table:

```
CREATE TABLE OUTLETS
(OUTLET_ID VARCHAR2(20) PRIMARY KEY,
OUTLET_TYPE VARCHAR2(20),
OUTLET_NAME VARCHAR2(20),
OUTLET_LOCATION VARCHAR2(20)
);

```

Below the code, the output window shows the messages for creating other tables and the OUTLETS table, and a yellow tooltip with the user's information:

table MEDIA\_CATEGORIES created.  
table SPONSERS created.  
table SPONSERS dropped.  
table SPONSORS created.  
table OUTLETS created.

Script Output x | Task completed in 0.074 seconds

**4)AGENT TABLE**

The screenshot shows the Oracle SQL Worksheet interface. The top bar includes tabs for 'SQL Worksheet' and 'History'. Below the toolbar, there are tabs for 'Worksheet' and 'Query Builder'. The main area contains the following SQL code:

```
CREATE TABLE AGENTS(
    AGENT_ID VARCHAR2(20) PRIMARY KEY,
    AGENT_NAME VARCHAR2(20),
    AGENT_COST NUMBER(6,2),
    AG_CONTRACT_START DATE,
    AG_CONTRACT_END DATE,
    OUT_ID VARCHAR2(20),
    CONSTRAINT OUT_ID_FK1 FOREIGN KEY(OUT_ID) REFERENCES OUTLETS(OUTLET_ID)
);
```

The 'Script Output' window at the bottom shows the execution results:

```
Task completed in 0.062 seconds
NO_CONTRACT_START DATE,
AG_CONTRACT_END DATE,
OUT_ID VARCHAR2(20),
CONSTRAINT OUT_ID_FK1 FOREIGN KEY(OUT_ID) REFERENCES OUTLETS(OUT_ID)

+ ... × column:62
FNU Pragya Pramudita ID": invalid identifier
A20430719           "l identifier"

*Action:
table AGENTS created.
```

**5)CONTRACTS TABLE**

The screenshot shows the Oracle SQL Worksheet interface. The top bar includes tabs for 'SQL Worksheet' and 'History'. Below the toolbar, there are tabs for 'Worksheet' and 'Query Builder'. The main area contains the following SQL code:

```
CREATE TABLE CONTRACTS
(
    CONT_ID VARCHAR2(10) PRIMARY KEY,
    CONT_START DATE,
    CONT_END DATE,
    AGENT_ID VARCHAR2(10),
    CONSTRAINT AGENT_ID_FK2 FOREIGN KEY(AGENT_ID) REFERENCES AGENTS(AGENT_ID)
);
```

The 'Script Output' window at the bottom shows the execution results:

```
Task completed in 0.045 seconds
table CONTRACTS created.

+ ... ×
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```

**6) TALENT TABLE**

The screenshot shows the Oracle SQL Developer interface. In the top-left pane, there is a tree view with two entries: 'CREATE TABLE TALENTS' and 'CREATE TABLE OUTLETS'. The 'CREATE TABLE TALENTS' entry is expanded, showing its SQL code. Below the tree view is a 'Script Output' window which displays the message 'Task completed in 0.061 seconds'. In the bottom-left pane, the status bar shows the message 'table TALENTS created.'. On the right side of the interface, there is a yellow floating window containing the text 'FNU Pragya Pramudita' and 'A20430719'.

```
CREATE TABLE TALENTS
(TAL_ID VARCHAR2(10),
TAL_FNAME VARCHAR2(20),
TAL_LNAME VARCHAR2(20),
MCAT_ID VARCHAR2(20),
CONSTRAINT MCAT_ID_FK3 FOREIGN KEY(MCAT_ID) REFERENCES MEDIA_CATEGORIES(MCAT_ID));
CREATE TABLE OUTLETS
```

table TALENTS created.

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**7) PROJECT TABLE**

The screenshot shows the Oracle SQL Developer interface. In the top-left pane, there is a tree view with two entries: 'CREATE TABLE PROJECT' and 'CREATE TABLE CONTRACTS'. The 'CREATE TABLE PROJECT' entry is expanded, showing its SQL code. Below the tree view is a 'Script Output' window which displays the message 'Task completed in 0.059 seconds'. In the bottom-left pane, the status bar shows the messages 'table CONTRACTS created.' and 'table PROJECT created.'. On the right side of the interface, there is a yellow floating window containing the text 'FNU Pragya Pramudita' and 'A20430719'.

```
CREATE TABLE PROJECT
(PROJID VARCHAR2(10) Primary key,
PROJNAME varchar2(10),
PROJ_TITLE varchar2(20),
PROJ_COST NUMBER(6,2),
MCAT_ID VARCHAR2(20),
AGENT_ID VARCHAR2(20),
SPONSOR_ID VARCHAR2(10),
CONT_ID VARCHAR2(20),
CONSTRAINT MCAT_ID_FK FOREIGN KEY(MCAT_ID) REFERENCES MEDIA_CATEGORIES(MCAT_ID),
CONSTRAINT AGENT_ID_FK FOREIGN KEY(AGENT_ID) REFERENCES AGENTS(AGENT_ID),
CONSTRAINT SPONSOR_ID_FK1 FOREIGN KEY(SPONSOR_ID) REFERENCES SPONSORS(SPONSOR_ID),
CONSTRAINT CONTRACT_ID_FK FOREIGN KEY(CONT_ID) REFERENCES CONTRACTS(CONT_ID))
```

table CONTRACTS created.  
table PROJECT created.

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**8) MEDIA TABLE**

```
CREATE TABLE MEDIA
(MED_ID VARCHAR2(20) PRIMARY KEY,
MED_NAME VARCHAR2(20),
START_DATE DATE,
END_DATE DATE,
AGENT_ID VARCHAR2(20),
PROJECT_COST NUMBER(6,2),
CONSTRAINT AGENT_ID_FK1 FOREIGN KEY(AGENT_ID) REFERENCES AGENTS(AGENT_ID)
);
```

+ ... X  
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```
CREATE TABLE AGENTS (
```

Script Output x  
| Task completed in 0.049 seconds

able MEDIA created.

**9) MEDIA ALLOCATION TABLE**

```
CREATE TABLE MEDIA_ALLOCATION
(LOCATION_ID VARCHAR2(10) PRIMARY KEY,
PROJID VARCHAR2(20),
MED_ID VARCHAR2(20),
MCAT_ID VARCHAR2(20),
CONSTRAINT PROJID_FK3 FOREIGN KEY(PROJID) REFERENCES PROJECT(PROJID),
CONSTRAINT MED_ID_FK3 FOREIGN KEY(MED_ID) REFERENCES MEDIA(MED_ID),
CONSTRAINT MCAT_ID_FK4 FOREIGN KEY(MCAT_ID) REFERENCES MEDIA_CATEGORIES(MCAT_ID)
);
```

+ ... X  
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Script Output x  
| Task completed in 0.085 seconds

```
table MEDIA_ALLOCATION created.
```

## 10) MEDIA ADVERTISING table

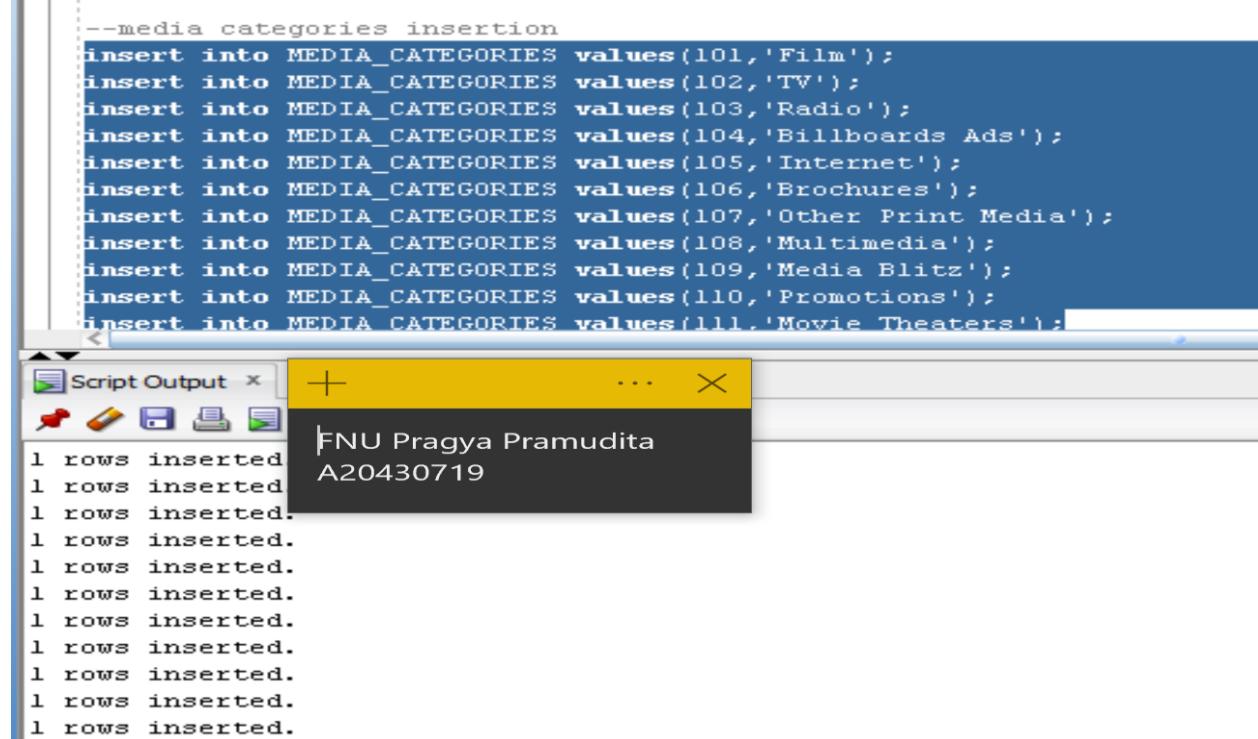
```
--Media advertising creation
CREATE TABLE MEDIA_ADVERTISING
(
ADID VARCHAR2(10) PRIMARY KEY,
ADTYPE VARCHAR2(20),
AGENT_ID VARCHAR2(10),
BUDGET NUMBER(10),
COST NUMBER(8),
CONSTRAINT AGENT_ID_FK4 FOREIGN KEY(AGENT_ID) REFERENCES AGENT(AGENT_ID)
);

Script Output X Script Output 1 X Query Result X
Task completed in 0.042 seconds
rows inserted.
rows inserted.
rows inserted.
Table MEDIA_ADVERTISING created.
```

## Phase VII Loading the Tables with Valid Data

In this phase, we have all the tables with valid data as shown below:

### 1. Media Categories Table



The screenshot shows the MySQL Workbench interface. On the left, there is a vertical toolbar with icons for file operations. In the center, there is a large text area containing an SQL script for inserting data into the `MEDIA_CATEGORIES` table. The script lists 11 categories with their respective IDs and names. On the right, there is a "Script Output" window with a yellow header bar. The output shows the results of the insertion: 11 rows inserted for each category listed in the script. Below the output, the user's name and ID are displayed: FNU Pragya Pramudita A20430719.

```
--media categories insertion
insert into MEDIA_CATEGORIES values(101,'Film');
insert into MEDIA_CATEGORIES values(102,'TV');
insert into MEDIA_CATEGORIES values(103,'Radio');
insert into MEDIA_CATEGORIES values(104,'Billboards Ads');
insert into MEDIA_CATEGORIES values(105,'Internet');
insert into MEDIA_CATEGORIES values(106,'Brochures');
insert into MEDIA_CATEGORIES values(107,'Other Print Media');
insert into MEDIA_CATEGORIES values(108,'Multimedia');
insert into MEDIA_CATEGORIES values(109,'Media Blitz');
insert into MEDIA_CATEGORIES values(110,'Promotions');
insert into MEDIA_CATEGORIES values(111,'Movie Theaters');
```

Script Output × + ... ×

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1 rows inserted  
1 rows inserted  
1 rows inserted.  
1 rows inserted.

SQL Worksheet History

Worksheet Query Builder

```
insert into MEDIA_CATEGORIES values(105,'Internet');
insert into MEDIA_CATEGORIES values(106,'Brochures');
insert into MEDIA_CATEGORIES values(107,'Other Print Media');
insert into MEDIA_CATEGORIES values(108,'Multimedia');
insert into MEDIA_CATEGORIES values(109,'Media Blitz');
insert into MEDIA_CATEGORIES values(110,'Promotions');
insert into MEDIA CATEGORIES values(111,'Movie Theaters');
```

Script Output x | Script Output 1 x | Query Result x

All Rows Fetched: 11 in 0 seconds

MCAT_ID	MEDIA_TYPE
1 101	Film
2 102	TV
3 103	Radio
4 104	Billboards Ads
5 105	Internet
6 106	Brochures
7 107	Other Print Media
8 108	Multimedia
9 109	Media Blitz
10 110	Promotions
11 111	Movie Theaters

Log

## 2. SPONSORS Table

Worksheet Query Builder

```
--Sponsor insertion
insert into SPONSORS values ('SP1001','White Castle',145000);
insert into SPONSORS values ('SP1002','Apple',985000);
insert into SPONSORS values ('SP1003','Samsung',950000);
insert into SPONSORS values ('SP1004','Walmart',40000);
insert into SPONSORS values ('SP1005','MetLife',25000);
insert into SPONSORS values ('SP1006','Jewel Co',50000);
insert into SPONSORS values ('SP1007','BestBuy',70000);
insert into SPONSORS values ('SP1008','Macys',60000);
insert into SPONSORS values ('SP1009','Draper and Kramer',35000);
insert into SPONSORS values ('SP1010','Marvel',800000);
insert into SPONSORS values ('SP1011','McDonalds',250000);
```

Script Output x

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rows inserted.  
rows inserted.

	SPONSOR_ID	SPONSOR_NAME	SPONSOR_AMOUNT
1	SP1001	White Castle	145000
2	SP1002	Apple	985000
3	SP1003	Samsung	950000
4	SP1004	Walmart	40000
5	SP1005	MetLife	25000
6	SP1006	Jewel Co	50000
7	SP1007	BestBuy	70000
8	SP1008	Macys	60000
9	SP1009	Draper and Kramer	35000
10	SP1010	Marvel	800000
11	SP1011	McDonalds	250000

### 3. OUTLETS Table

```
--Outlet insertion
insert into OUTLETS values ('OU1001','Printing Press','AAA Printing Press','Chicago');
insert into OUTLETS values ('OU1002','Billboard','AAA Billboard Co','Chicago');
insert into OUTLETS values ('OU1003','Radio','AAA Radio','Chicago');
insert into OUTLETS values ('OU1004','TV and Broadcasting','AAA TV-Broadcasting','Wisconsin');
insert into OUTLETS values ('OU1005','Printing Press','ABC Printing Press','Wisconsin');
insert into OUTLETS values ('OU1006','Billboard','ABC Billboard Co','Wisconsin');
insert into OUTLETS values ('OU1007','Radio','ABC Radio','Wisconsin');
insert into OUTLETS values ('OU1008','TV and Broadcasting','ABC TV-Broadcasting','Wisconsin');
insert into OUTLETS values ('OU1009','TV and Broadcasting','XYZ TV-Broadcasting','Indiana');
insert into OUTLETS values ('OU1010','Billboard','XYZ Billboard Co','Indiana');
insert into OUTLETS values ('OU1011','Radio','XYZ Radio','Indiana');
```

Script Output

+ ... X

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1 rows inserted  
1 rows inserted  
1 rows inserted.  
1 rows inserted.

The screenshot shows a database query results window titled "Query Result". It displays 11 rows of data from the "OUTLET" table. The columns are: OUTLET\_ID, OUTLET\_TYPE, OUTLET\_NAME, and OUTLET\_LOCATION. The data is as follows:

OUTLET_ID	OUTLET_TYPE	OUTLET_NAME	OUTLET_LOCATION
1 OU1001	Printing Press	AAA Printing Press	Chicago
2 OU1002	Billboard	AAA BillBoard Co	Chicago
3 OU1003	Radio	AAA Radio	Chicago
4 OU1005	Printing Press	ABC Printing Press	Wisconsin
5 OU1006	Billboard	ABC BillBoard Co	Wisconsin
6 OU1007	Radio	ABC Radio	Wisconsin
7 OU1010	Billboard	XYZ BillBoard Co	Indiana
8 OU1011	Radio	XYZ Radio	Indiana
9 OU1004	TV and Broadcasting	AAA TV-Broadcasting	Wisconsin
10 OU1008	TV and Broadcasting	ABC TV-Broadcasting	Wisconsin
11 OU1009	TV and Broadcasting	XYZ TV-Broadcasting	Indiana

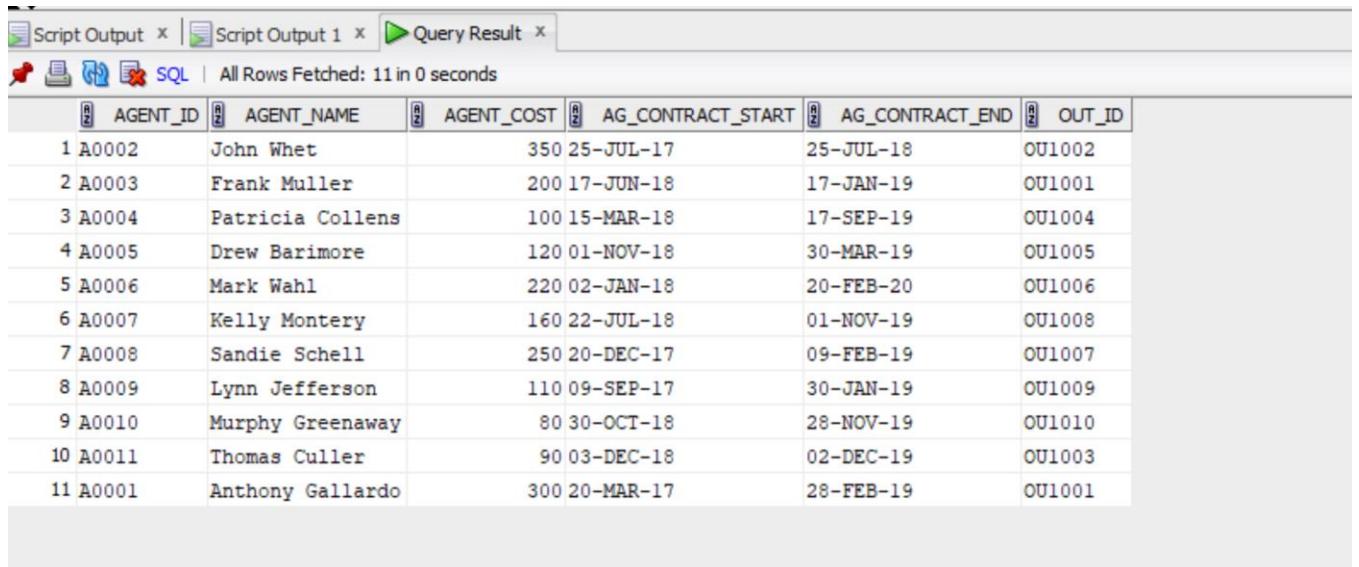
#### 4. AGENTS Table

```
---agents insertion
insert into AGENTS values ('A0001','Anthony Gallardo',300,TO_DATE('3/20/2017', 'mm/dd/yyyy'),TO_DATE('2/28/2019', 'mm/dd/yyyy'),'OU1001');
insert into AGENTS values ('A0002','John Whet',350,TO_DATE('7/25/2017', 'mm/dd/yyyy'),TO_DATE('7/25/2018', 'mm/dd/yyyy'),'OU1002');
insert into AGENTS values ('A0003','Frank Muller',200,TO_DATE('6/17/2018', 'mm/dd/yyyy'),TO_DATE('1/17/2019', 'mm/dd/yyyy'),'OU1003');
insert into AGENTS values ('A0004','Patricia Collens',100,TO_DATE('3/15/2018', 'mm/dd/yyyy'),TO_DATE('9/17/2019', 'mm/dd/yyyy'),'OU1004');
insert into AGENTS values ('A0005','Drew Barimore',120,TO_DATE('11/01/2018', 'mm/dd/yyyy'),TO_DATE('3/30/2019', 'mm/dd/yyyy'),'OU1005');
insert into AGENTS values ('A0006','Mark Wahl',220,TO_DATE('1/2/2018', 'mm/dd/yyyy'),TO_DATE('2/20/2020', 'mm/dd/yyyy'),'OU1006');
insert into AGENTS values ('A0007','Kelly Monterey',160,TO_DATE('7/22/2018', 'mm/dd/yyyy'),TO_DATE('11/01/2019', 'mm/dd/yyyy'),'OU1008');
insert into AGENTS values ('A0008','Sandie Schell',250,TO_DATE('12/20/2017', 'mm/dd/yyyy'),TO_DATE('2/09/2019', 'mm/dd/yyyy'),'OU1007');
insert into AGENTS values ('A0009','Lynn Jefferson',110,TO_DATE('9/9/2017', 'mm/dd/yyyy'),TO_DATE('1/30/2019', 'mm/dd/yyyy'),'OU1009');
insert into AGENTS values ('A0010','Murphy Greenaway',80,TO_DATE('10/30/2018', 'mm/dd/yyyy'),TO_DATE('11/28/2019', 'mm/dd/yyyy'),'OU1010');
insert into AGENTS values ('A0011','Thomas Culver',90,TO_DATE('12/3/2018', 'mm/dd/yyyy'),TO_DATE('12/2/2019', 'mm/dd/yyyy'),'OU1003');
```

The screenshot shows a "Script Output" window with the following content:

```
1 rows inserted
1 rows inserted
1 rows inserted
1 rows inserted.
```

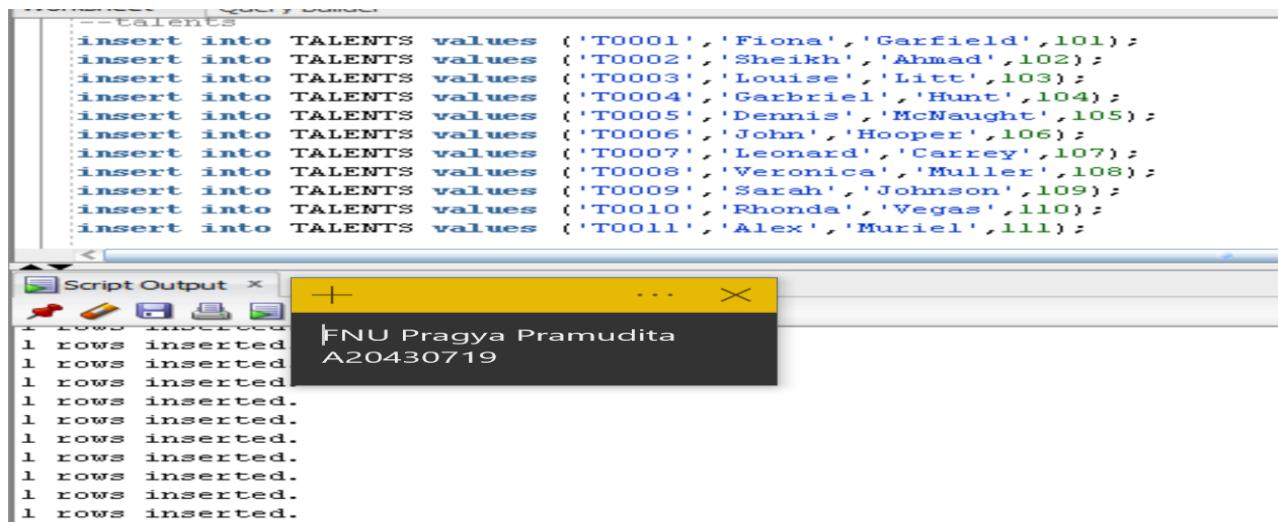
Below the window, the text "FNU Pragya Pramudita A20430719" is displayed.



The screenshot shows the Oracle SQL Developer interface with the 'Query Result' tab selected. The results of a query on the AGENTS table are displayed in a grid format. The columns are labeled: AGENT\_ID, AGENT\_NAME, AGENT\_COST, AG\_CONTRACT\_START, AG\_CONTRACT\_END, and OUT\_ID. The data consists of 11 rows, each representing an agent with their name, cost, contract start date, contract end date, and output ID.

AGENT_ID	AGENT_NAME	AGENT_COST	AG_CONTRACT_START	AG_CONTRACT_END	OUT_ID
1 A0002	John Whet	350	25-JUL-17	25-JUL-18	OU1002
2 A0003	Frank Muller	200	17-JUN-18	17-JAN-19	OU1001
3 A0004	Patricia Collens	100	15-MAR-18	17-SEP-19	OU1004
4 A0005	Drew Barimore	120	01-NOV-18	30-MAR-19	OU1005
5 A0006	Mark Wahl	220	02-JAN-18	20-FEB-20	OU1006
6 A0007	Kelly Monterey	160	22-JUL-18	01-NOV-19	OU1008
7 A0008	Sandie Schell	250	20-DEC-17	09-FEB-19	OU1007
8 A0009	Lynn Jefferson	110	09-SEP-17	30-JAN-19	OU1009
9 A0010	Murphy Greenaway	80	30-OCT-18	28-NOV-19	OU1010
10 A0011	Thomas Culler	90	03-DEC-18	02-DEC-19	OU1003
11 A0001	Anthony Gallardo	300	20-MAR-17	28-FEB-19	OU1001

## 5. TALENTS Table

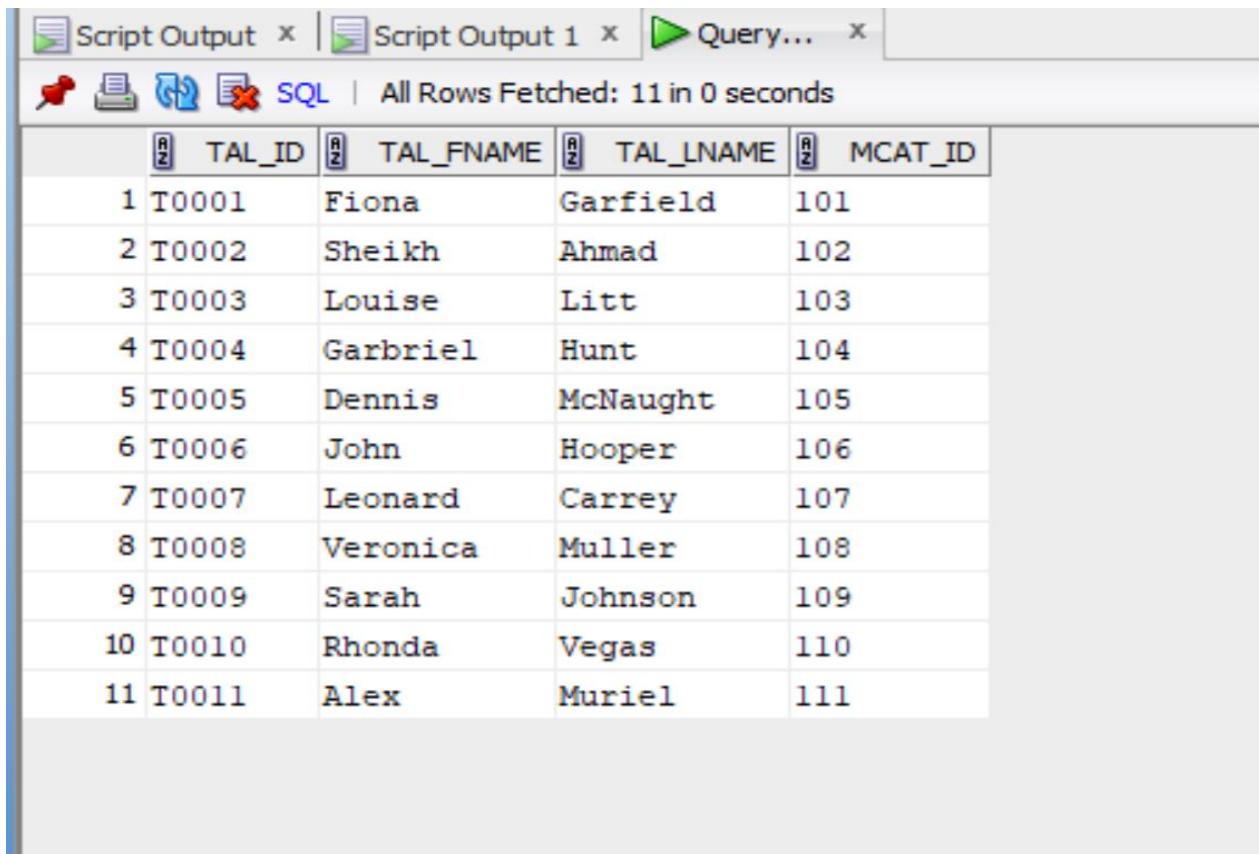


The screenshot shows the Oracle SQL Developer interface with the 'Script Output' tab selected. It displays the results of an 'INSERT INTO TALENTS' query, which has inserted 11 rows into the TALENTS table. The output window also shows the names of the 11 talents inserted.

```
--talents
insert into TALENTS values ('T0001','Fiona','Garfield',101);
insert into TALENTS values ('T0002','Sheikh','Ahmad',102);
insert into TALENTS values ('T0003','Louise','Litt',103);
insert into TALENTS values ('T0004','Garbriel','Hunt',104);
insert into TALENTS values ('T0005','Dennis','McNaught',105);
insert into TALENTS values ('T0006','John','Hooper',106);
insert into TALENTS values ('T0007','Leonard','Carrey',107);
insert into TALENTS values ('T0008','Veronica','Muller',108);
insert into TALENTS values ('T0009','Sarah','Johnson',109);
insert into TALENTS values ('T0010','Rhonda','Vegas',110);
insert into TALENTS values ('T0011','Alex','Muriel',111);

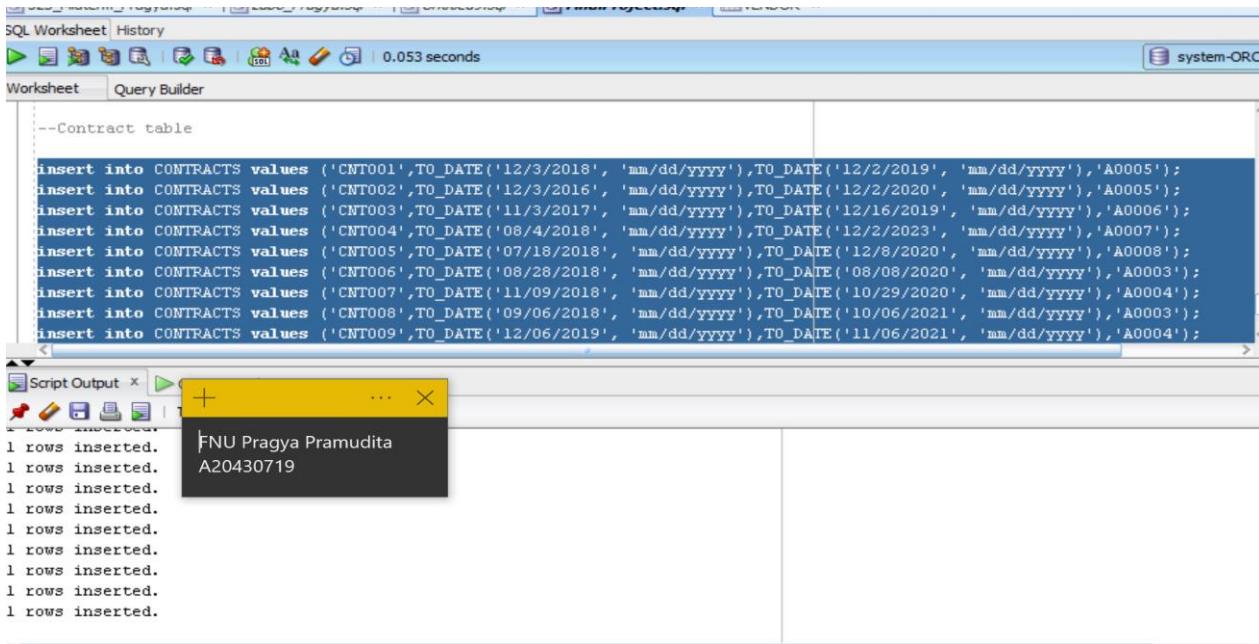
rows inserted.
```

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	TAL_ID	TAL_FNAME	TAL_LNAME	MCAT_ID
1	T0001	Fiona	Garfield	101
2	T0002	Sheikh	Ahmad	102
3	T0003	Louise	Litt	103
4	T0004	Garbriel	Hunt	104
5	T0005	Dennis	McNaught	105
6	T0006	John	Hooper	106
7	T0007	Leonard	Carrey	107
8	T0008	Veronica	Muller	108
9	T0009	Sarah	Johnson	109
10	T0010	Rhonda	Vegas	110
11	T0011	Alex	Muriel	111

## 6. Contract table

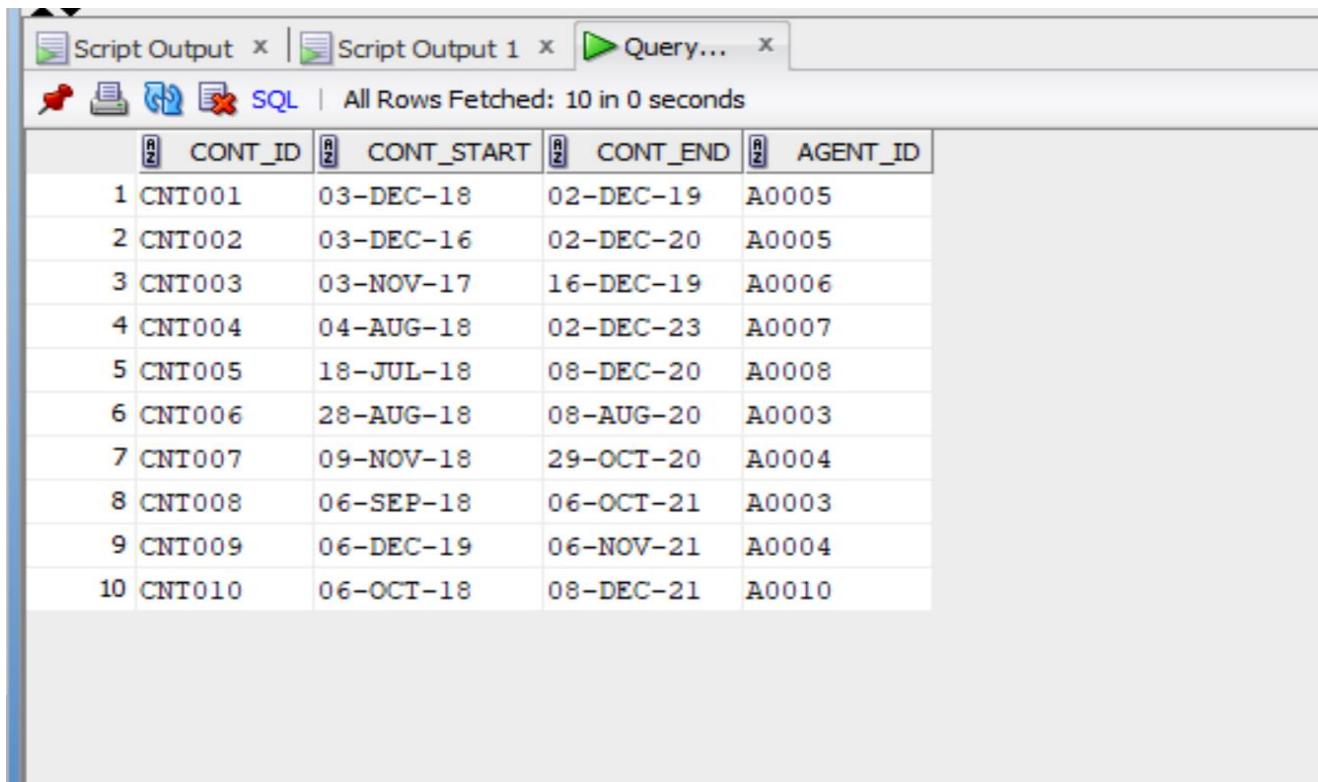


```
--Contract table

insert into CONTRACTS values ('CNT001',TO_DATE('12/3/2018', 'mm/dd/yyyy'),TO_DATE('12/2/2019', 'mm/dd/yyyy'),'A0005');
insert into CONTRACTS values ('CNT002',TO_DATE('12/3/2016', 'mm/dd/yyyy'),TO_DATE('12/2/2020', 'mm/dd/yyyy'),'A0005');
insert into CONTRACTS values ('CNT003',TO_DATE('11/3/2017', 'mm/dd/yyyy'),TO_DATE('12/16/2019', 'mm/dd/yyyy'),'A0006');
insert into CONTRACTS values ('CNT004',TO_DATE('08/4/2018', 'mm/dd/yyyy'),TO_DATE('12/2/2023', 'mm/dd/yyyy'),'A0007');
insert into CONTRACTS values ('CNT005',TO_DATE('07/18/2018', 'mm/dd/yyyy'),TO_DATE('12/8/2020', 'mm/dd/yyyy'),'A0008');
insert into CONTRACTS values ('CNT006',TO_DATE('08/28/2018', 'mm/dd/yyyy'),TO_DATE('08/08/2020', 'mm/dd/yyyy'),'A0003');
insert into CONTRACTS values ('CNT007',TO_DATE('11/09/2018', 'mm/dd/yyyy'),TO_DATE('10/29/2020', 'mm/dd/yyyy'),'A0004');
insert into CONTRACTS values ('CNT008',TO_DATE('09/06/2018', 'mm/dd/yyyy'),TO_DATE('10/06/2021', 'mm/dd/yyyy'),'A0003');
insert into CONTRACTS values ('CNT009',TO_DATE('12/06/2019', 'mm/dd/yyyy'),TO_DATE('11/06/2021', 'mm/dd/yyyy'),'A0004');

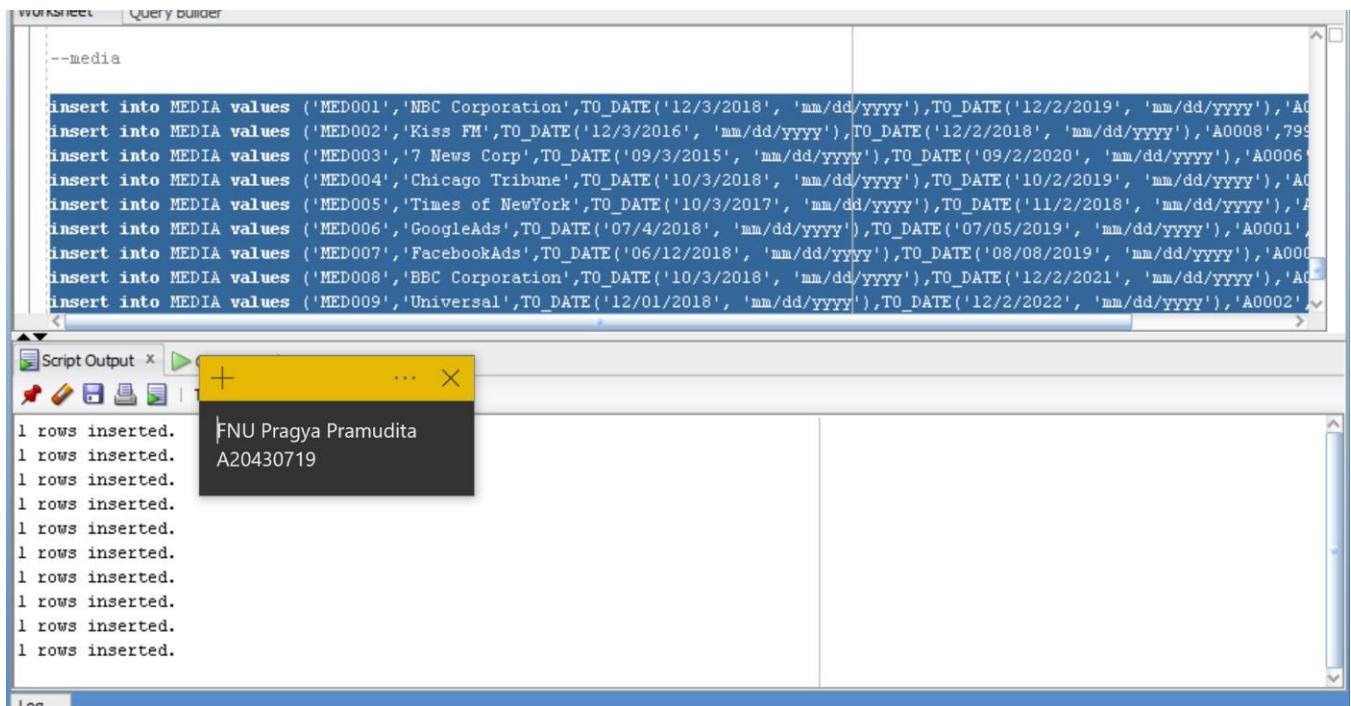
1 rows inserted.
```

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	CONT_ID	CONT_START	CONT_END	AGENT_ID
1	CNT001	03-DEC-18	02-DEC-19	A0005
2	CNT002	03-DEC-16	02-DEC-20	A0005
3	CNT003	03-NOV-17	16-DEC-19	A0006
4	CNT004	04-AUG-18	02-DEC-23	A0007
5	CNT005	18-JUL-18	08-DEC-20	A0008
6	CNT006	28-AUG-18	08-AUG-20	A0003
7	CNT007	09-NOV-18	29-OCT-20	A0004
8	CNT008	06-SEP-18	06-OCT-21	A0003
9	CNT009	06-DEC-19	06-NOV-21	A0004
10	CNT010	06-OCT-18	08-DEC-21	A0010

## 7.Media Table

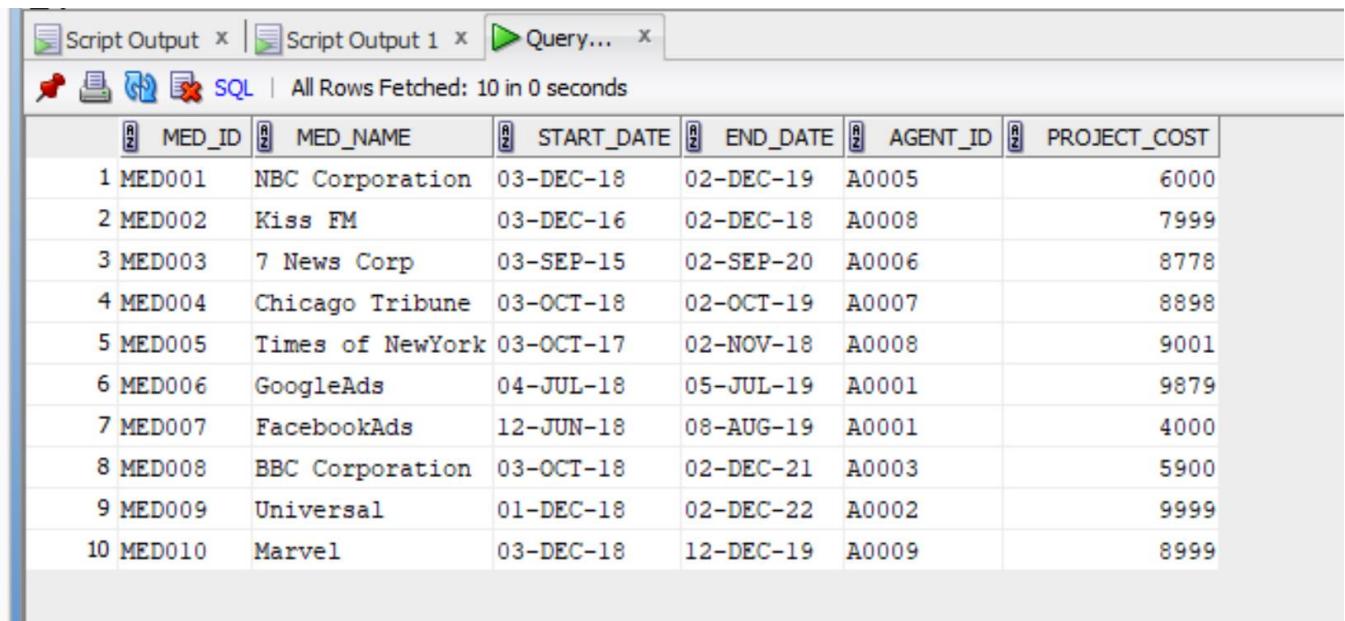


```
--media

insert into MEDIA values ('MED001','NBC Corporation',TO_DATE('12/3/2018', 'mm/dd/yyyy'),TO_DATE('12/2/2019', 'mm/dd/yyyy'), 'A0001',799)
insert into MEDIA values ('MED002','Kiss FM',TO_DATE('12/3/2016', 'mm/dd/yyyy'),TO_DATE('12/2/2018', 'mm/dd/yyyy'), 'A0008',799)
insert into MEDIA values ('MED003','7 News Corp',TO_DATE('09/3/2015', 'mm/dd/yyyy'),TO_DATE('09/2/2020', 'mm/dd/yyyy'), 'A0006',799)
insert into MEDIA values ('MED004','Chicago Tribune',TO_DATE('10/3/2018', 'mm/dd/yyyy'),TO_DATE('10/2/2019', 'mm/dd/yyyy'), 'A0007',799)
insert into MEDIA values ('MED005','Times of NewYork',TO_DATE('10/3/2017', 'mm/dd/yyyy'),TO_DATE('11/2/2018', 'mm/dd/yyyy'), 'A0009',799)
insert into MEDIA values ('MED006','GoogleAds',TO_DATE('07/4/2018', 'mm/dd/yyyy'),TO_DATE('07/05/2019', 'mm/dd/yyyy'), 'A0001',799)
insert into MEDIA values ('MED007','FacebookAds',TO_DATE('06/12/2018', 'mm/dd/yyyy'),TO_DATE('08/08/2019', 'mm/dd/yyyy'), 'A0002',799)
insert into MEDIA values ('MED008','BBC Corporation',TO_DATE('10/3/2018', 'mm/dd/yyyy'),TO_DATE('12/2/2021', 'mm/dd/yyyy'), 'A0003',799)
insert into MEDIA values ('MED009','Universal',TO_DATE('12/01/2018', 'mm/dd/yyyy'),TO_DATE('12/2/2022', 'mm/dd/yyyy'), 'A0002',799)
```

1 rows inserted.  
 1 rows inserted.

FNU Pragya Pramudita  
 A20430719



	MED_ID	MED_NAME	START_DATE	END_DATE	AGENT_ID	PROJECT_COST
1	MED001	NBC Corporation	03-DEC-18	02-DEC-19	A0005	6000
2	MED002	Kiss FM	03-DEC-16	02-DEC-18	A0008	7999
3	MED003	7 News Corp	03-SEP-15	02-SEP-20	A0006	8778
4	MED004	Chicago Tribune	03-OCT-18	02-OCT-19	A0007	8898
5	MED005	Times of NewYork	03-OCT-17	02-NOV-18	A0008	9001
6	MED006	GoogleAds	04-JUL-18	05-JUL-19	A0001	9879
7	MED007	FacebookAds	12-JUN-18	08-AUG-19	A0001	4000
8	MED008	BBC Corporation	03-OCT-18	02-DEC-21	A0003	5900
9	MED009	Universal	01-DEC-18	02-DEC-22	A0002	9999
10	MED010	Marvel	03-DEC-18	12-DEC-19	A0009	8999

## 8. Project table

```
--Project

insert into PROJECT values ('P001','New Media','Media for New Gen',16000,101,'A0005','SP1007','CNT001');
insert into PROJECT values ('P002','Media House','Media House Inc',17000,101,'A0005','SP1008','CNT002');
insert into PROJECT values ('P003','Apple XR','Apple Inc',80000,101,'A0006','SP1009','CNT003');
insert into PROJECT values ('P004','Samsung Note 9','Samsung',75000,101,'A0007','SP1010','CNT004');
insert into PROJECT values ('P005','WC BLK FRIDAY','WC BLK Friday Deals',10000,101,'A0008','SP1011','CNT005');
insert into PROJECT values ('P006','Walmart Bfriday','BlackFriday Walmart',70000,101,'A0003','SP1003','CNT006');
insert into PROJECT values ('P007','DK KingsWood','D and K KingsWood',15000,101,'A0004','SP1004','CNT007');
insert into PROJECT values ('P008','Jewel Community','Jewel Blk Community',25000,101,'A0003','SP1005','CNT008');
insert into PROJECT values ('P009','Best Deals','Best Deals Bestbuy',92000,101,'A0004','SP1006','CNT009');
```

Script Output x | Query Result x | Script Output 1 x

1 rows inserted.  
1 rows inserted.

The screenshot shows a database query results window. At the top, there are tabs for 'Script Output', 'Script Output 1', and 'Query Result'. Below the tabs, it says 'All Rows Fetched: 10 in 0.003 seconds'. The interface includes standard SQL navigation icons (red square, blue square, green square, red X). The data is presented in a grid with the following columns: PROJID, PROJNAME, PROJ\_TITLE, PROJ\_COST, MCAT\_ID, AGENT\_ID, SPONSOR\_ID, and CNT\_ID. The data rows are as follows:

PROJID	PROJNAME	PROJ_TITLE	PROJ_COST	MCAT_ID	AGENT_ID	SPONSOR_ID	CNT_ID
1 P001	New Media	Media for N...	16000	101	A0005	SP1007	CNT001
2 P002	Media House	Media House...	17000	101	A0005	SP1008	CNT002
3 P003	Apple XR	Apple Inc	80000	101	A0006	SP1009	CNT003
4 P004	Samsung Note 9	Samsung	75000	101	A0007	SP1010	CNT004
5 P005	WC BLK FRIDAY	WC BLK Frid...	10000	101	A0008	SP1011	CNT005
6 P006	Walmart Bfriday	BlackFriday...	70000	101	A0003	SP1003	CNT006
7 P007	DK KingsWood	D and K Kin...	15000	101	A0004	SP1004	CNT007
8 P008	Jewel Community	Jewel Blk C...	25000	101	A0003	SP1005	CNT008
9 P009	Best Deals	Best Deals ...	92000	101	A0004	SP1006	CNT009
10 P010	ShopNRoam Macys	ShopNRoam M...	35000	101	A0010	SP1007	CNT010

### 9. Media\_allocation table

```
insert into MEDIA_ALLOCATION values ('ALLOC_001','P004','MED001',101);
insert into MEDIA_ALLOCATION values ('ALLOC_002','P002','MED002',102);
insert into MEDIA_ALLOCATION values ('ALLOC_003','P003','MED003',104);
insert into MEDIA_ALLOCATION values ('ALLOC_004','P001','MED004',105);
insert into MEDIA_ALLOCATION values ('ALLOC_005','P005','MED005',103);
insert into MEDIA_ALLOCATION values ('ALLOC_006','P008','MED006',102);
insert into MEDIA_ALLOCATION values ('ALLOC_007','P009','MED007',101);
insert into MEDIA_ALLOCATION values ('ALLOC_008','P006','MED008',107);
insert into MEDIA_ALLOCATION values ('ALLOC_009','P007','MED009',108);
insert into MEDIA_ALLOCATION values ('ALLOC_010','P010','MED010',102);
```

The screenshot shows a database query results window. At the top, there are tabs for 'Script Output', 'Script Output 1', and 'Query Result'. Below the tabs, it says 'Task completed in 0.014 seconds'. The interface includes standard SQL navigation icons (red square, blue square, green square, red X). The output shows ten rows of inserted data, each consisting of the message '1 rows inserted.' repeated ten times.

```
select * from media_allocation;
```

	ALLOCATION_ID	PROJID	MED_ID	MCAT_ID
1	ALLOC_001	P004	MED001	101
2	ALLOC_002	P002	MED002	102
3	ALLOC_003	P003	MED003	104
4	ALLOC_004	P001	MED004	105
5	ALLOC_005	P005	MED005	103
6	ALLOC_006	P008	MED006	102
7	ALLOC_007	P009	MED007	101
8	ALLOC_008	P006	MED008	107
9	ALLOC_009	P007	MED009	108
10	ALLOC_010	P010	MED010	102

#### 10. MediaAdvertising table

```
insert into MEDIA_ADVERTISING values ('AD001','Mobile Ad','A0001',6000,3000);
insert into MEDIA_ADVERTISING values ('AD002','Mobile Ad','A0001',6000,2000);
insert into MEDIA_ADVERTISING values ('AD003','Mobile Ad','A0001',6000,2000);
insert into MEDIA_ADVERTISING values ('AD004','Billboard','A0006',8000,6000);
insert into MEDIA_ADVERTISING values ('AD005','Informercials','A0008',8000,7000);
insert into MEDIA_ADVERTISING values ('AD006','Classified','A0005',10000,2000);
insert into MEDIA_ADVERTISING values ('AD007','Radio','A0004',5000,3000);
insert into MEDIA_ADVERTISING values ('AD008','TV','A0003',7000,3000);
insert into MEDIA_ADVERTISING values ('AD009','Facebook AD','A0009',7000,3000);
insert into MEDIA_ADVERTISING values ('AD010','GoogleAds','A0009',7000,5000);
```

```
1 rows inserted.
```

```
select * from MEDIA_ADVERTISING;
```

Script Output x | Script Output 1 x | Query... x

SQL | All Rows Fetched: 10 in 0.004 seconds

	ADID	ADTYPE	AGENT_ID	BUDGET	COST
1	AD001	Mobile Ad	A0001	6000	3000
2	AD002	Mobile Ad	A0001	6000	2000
3	AD003	Mobile Ad	A0001	6000	2000
4	AD004	Billboard	A0006	8000	6000
5	AD005	Informercials	A0008	8000	7000
6	AD006	Classified	A0005	10000	2000
7	AD007	Radio	A0004	5000	3000
8	AD008	TV	A0003	7000	3000
9	AD009	Facebook AD	A0009	7000	3000
10	AD010	GoogleAds	A0009	7000	5000

## Phase VIII Testing the Database System

### 1. Inserting duplicate records

```
insert into SPONSORS values ('SP1011','McDonalds',250000);
```

Script Output X Script Output 1 X Query Result X  
Task completed in 0.011 seconds

Error report:

SQL Error: ORA-00001: unique constraint (SYSTEM.SYS\_C0010667) violated  
00001. 00000 - "unique constraint (%s.%s) violated"

\*Cause: An UPDATE or INSERT statement attempted to insert a duplicate key.  
For Trusted Oracle configured in DBMS MAC mode, you may see  
this message if a duplicate entry exists at a different level.

\*Action: Either remove the unique restriction or do not insert the key.

### 2. Out of range value

```
insert into SPONSORS values ('SP1016','Kellys',125000000000);
```

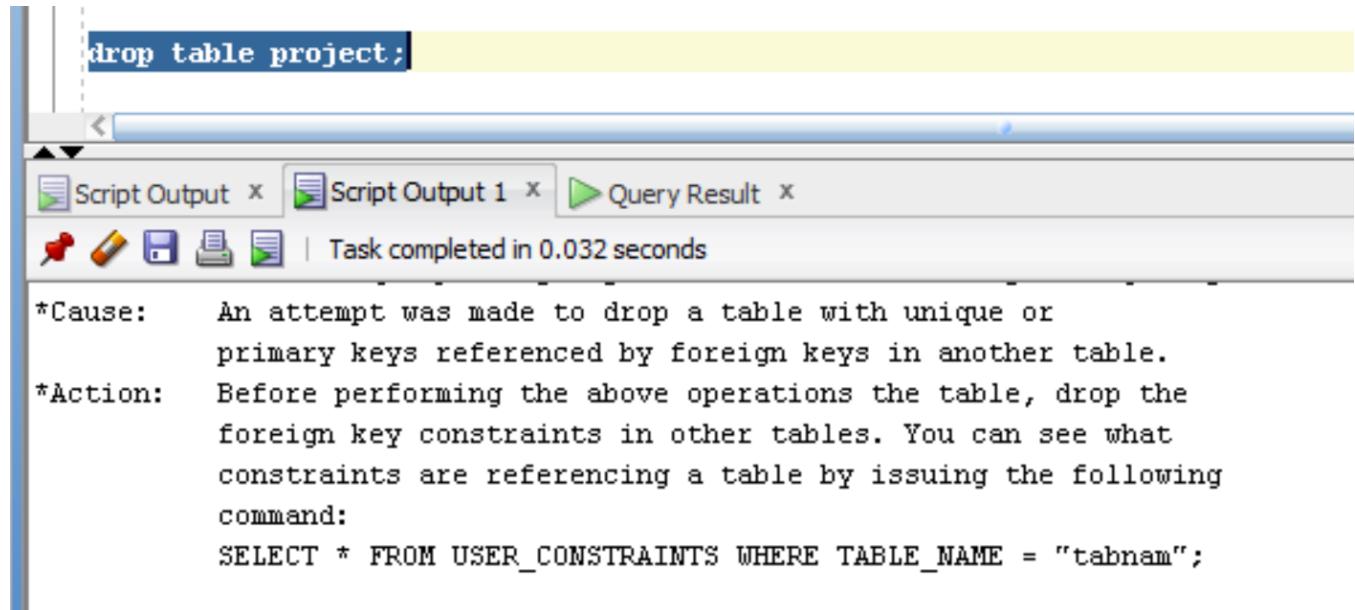
Script Output X Script Output 1 X Query Result X  
Task completed in 0.01 seconds

SQL Error: ORA-01438: value larger than specified precision allowed for this column  
01438. 00000 - "value larger than specified precision allowed for this column"

\*Cause: When inserting or updating records, a numeric value was entered  
that exceeded the precision defined for the column.

\*Action: Enter a value that complies with the numeric column's precision,  
or use the MODIFY option with the ALTER TABLE command to expand  
the precision.

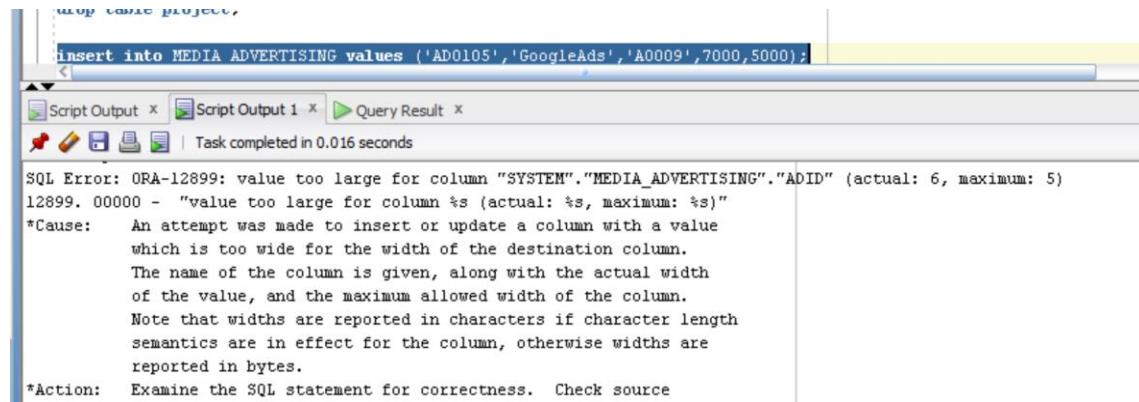
### 3. Deleting a table



The screenshot shows the SQL developer interface. In the top query editor, the command `drop table project;` is entered. Below it, the output window shows the message "Task completed in 0.032 seconds". The error message is displayed in the log area:

```
*Cause: An attempt was made to drop a table with unique or primary keys referenced by foreign keys in another table.
*Action: Before performing the above operations the table, drop the foreign key constraints in other tables. You can see what constraints are referencing a table by issuing the following command:
SELECT * FROM USER_CONSTRAINTS WHERE TABLE_NAME = "tabnam";
```

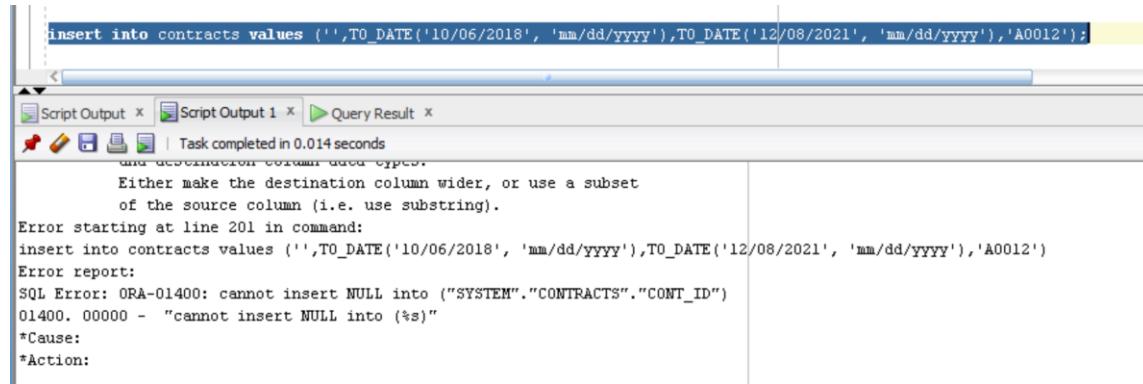
### 4. Giving ID greater than field length



The screenshot shows the SQL developer interface. In the top query editor, the command `insert into MEDIA_ADVERTISING values ('AD0105','GoogleAds','A0009',7000,5000);` is entered. Below it, the output window shows the message "Task completed in 0.016 seconds". The error message is displayed in the log area:

```
SQL Error: ORA-12899: value too large for column "SYSTEM"."MEDIA_ADVERTISING"."ADID" (actual: 6, maximum: 5)
12899. 00000 - "value too large for column %s (actual: %s, maximum: %s)"
*Cause: An attempt was made to insert or update a column with a value which is too wide for the width of the destination column.
The name of the column is given, along with the actual width of the value, and the maximum allowed width of the column.
Note that widths are reported in characters if character length semantics are in effect for the column, otherwise widths are reported in bytes.
*Action: Examine the SQL statement for correctness. Check source
```

### 5. Null value insertion



The screenshot shows the SQL developer interface. In the top query editor, the command `insert into contracts values ('',TO_DATE('10/06/2018', 'mm/dd/yyyy'),TO_DATE('12/08/2021', 'mm/dd/yyyy'),'A0012');` is entered. Below it, the output window shows the message "Task completed in 0.014 seconds". The error message is displayed in the log area:

```
and destination column data types.
Either make the destination column wider, or use a subset of the source column (i.e. use substring).
Error starting at line 201 in command:
insert into contracts values ('',TO_DATE('10/06/2018', 'mm/dd/yyyy'),TO_DATE('12/08/2021', 'mm/dd/yyyy'),'A0012')
Error report:
SQL Error: ORA-01400: cannot insert NULL into ("SYSTEM"."CONTRACTS"."CONT_ID")
01400. 00000 - "cannot insert NULL into (%s)"
*Cause:
*Action:
```

**6. Deleting record which is not present**

The screenshot shows a SQL query window with the following content:

```
delete from MEDIA where MED_ID = 'MED101';
```

Below the query window, the interface includes tabs for "Script Output", "Script Output 1", and "Query Result". The "Query Result" tab is active, displaying the message "Task completed in 0.002 seconds". Underneath the tabs, the status "0 rows deleted." is shown.

**7. Delete record which is referring other tables**

The screenshot shows a SQL query window with the following content:

```
delete from PROJECT where PROJID = 'P010';
```

Below the query window, the interface includes tabs for "Script Output", "Script Output 1", and "Query Result". The "Query Result" tab is active, displaying the message "Task completed in 0.012 seconds".

Following the task completion message, an error report is displayed:

```
Error starting at line 205 in command:  
delete from PROJECT where PROJID = 'P010'  
Error report:  
SQL Error: ORA-02292: integrity constraint (SYSTEM.PROJID_FK3) violated - child record found  
02292. 00000 - "integrity constraint (%s.%s) violated - child record found"  
*Cause: attempted to delete a parent key value that had a foreign  
dependency.  
*Action: delete dependencies first then parent or disable constraint.
```

**8. Select valid data using subquery**

The screenshot shows a SQL query window with the following content:

```
select * from media_allocation  
where med_id in (select med_id from media where med_id = 'MED001');
```

Below the query window, the interface includes tabs for "Script Output", "Script Output 1", and "Query...". The "Query..." tab is active, displaying the message "All Rows Fetched: 1 in 0.003 seconds".

A results grid is shown below the tabs, containing the following data:

ALLOCATION_ID	PROJID	MED_ID	MCAT_ID
1 ALLOC_001	P004	MED001	101

**9. Invalid item selection**

```
select * from TALENTS  
where tal_lname like '%shunty%';
```

The screenshot shows the Oracle SQL Developer interface. In the top-left pane, there is a code editor containing the following SQL query:

```
select * from TALENTS  
where tal_lname like '%shunty%';
```

Below the code editor, the toolbar has several icons: a red key, a blue document, a green person, a red X, and the word "SQL". To the right of the toolbar, it says "All Rows Fetched: 0 in 0.002 seconds". At the bottom, there is a row of column headers: TAL\_ID, TAL\_FN..., TAL\_LN..., and MCAT\_ID. The entire interface is set against a light gray background.

**10. Join using invalid condition**

```
select p.ProjID, Projname, proj_cost, m.med_id  
from project p inner join media_allocation m  
on p.projid = m.med_id
```

The screenshot shows the Oracle SQL Developer interface. In the top-left pane, there is a code editor containing the following SQL query:

```
select p.ProjID, Projname, proj_cost, m.med_id  
from project p inner join media_allocation m  
on p.projid = m.med_id
```

Below the code editor, the toolbar has several icons: a red key, a blue document, a green person, a red X, and the word "SQL". To the right of the toolbar, it says "All Rows Fetched: 0 in 0.002 seconds". At the bottom, there is a row of column headers: PROJID, PROJNA..., PROJ\_C..., and MED\_ID. The entire interface is set against a light gray background.

**11. Valid join**

```
select p.ProjID, Projname, proj_cost, m.med_id
from project p inner join media_allocation m
on p.projid = m.projid
```

Script Output x | Script Output 1 x | Query Result x

SQL | All Rows Fetched: 10 in 0.007 seconds

	PROJID	PROJNAME	PROJ_COST	MED_ID
1	P004	Samsung Note 9	75000	MED001
2	P002	Media House	17000	MED002
3	P003	Apple XR	80000	MED003
4	P001	New Media	16000	MED004
5	P005	WC BLK FRIDAY	10000	MED005
6	P008	Jewel Community	25000	MED006
7	P009	Best Deals	92000	MED007
8	P006	Walmart Bfriday	70000	MED008
9	P007	DK KingsWood	15000	MED009
10	P010	ShopNRoam Macys	35000	MED010

## Phase IX Data Analytics Performed

- 1) Which sponsor is sponsoring how many number of projects?

```
select count(sponsor_id) as sponsor_count , sponsor_id  
from project  
group by sponsor_id;
```

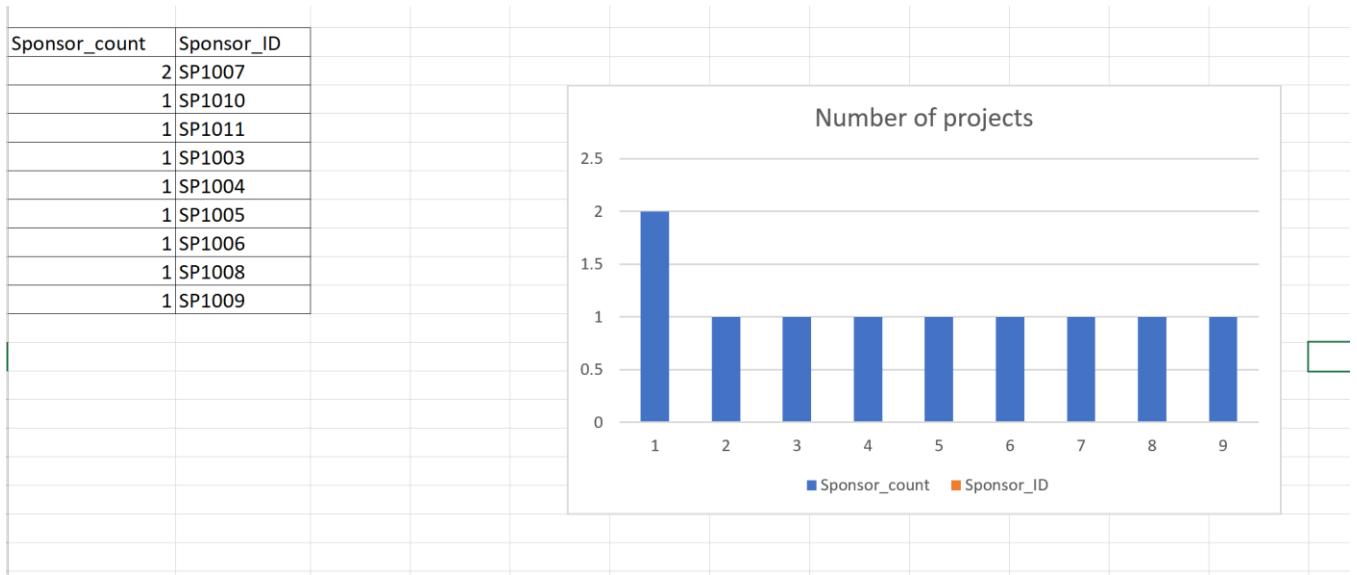
The screenshot shows a SQL query being run in Oracle SQL Developer. The query is:

```
select count(sponsor_id) as sponsor_count , sponsor_id  
from project  
group by sponsor_id;
```

The results are displayed in a table titled "Query Result". The table has two columns: "SPONSOR\_COUNT" and "SPONSOR\_ID". The data is as follows:

SPONSOR_COUNT	SPONSOR_ID
1	2 SP1007
2	1 SP1010
3	1 SP1011
4	1 SP1003
5	1 SP1004
6	1 SP1005
7	1 SP1006
8	1 SP1008
9	1 SP1009

Below the table, it says "All Rows Fetched: 9 in 0.002 seconds".



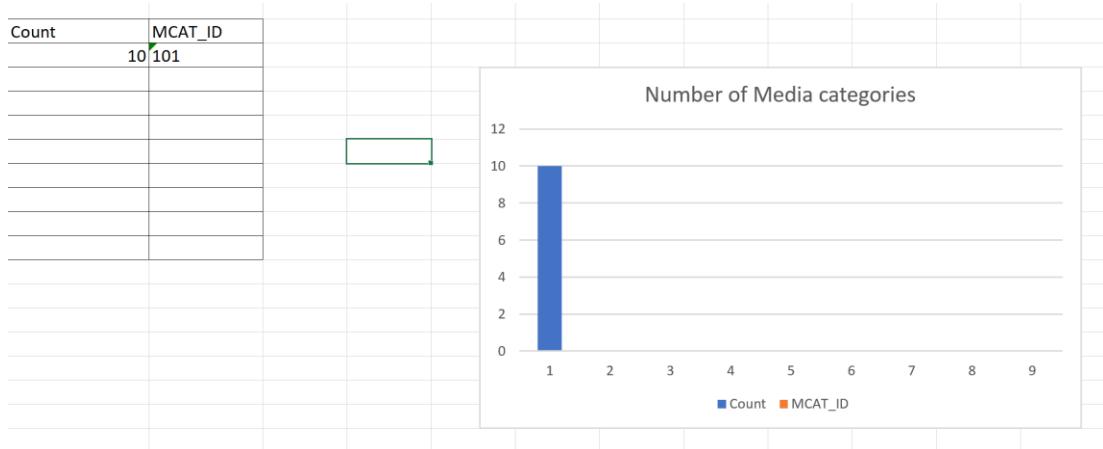
2) How many projects are using same media category?

```
select count(mcat_id), mcat_id
from project p
group by mcat_id;
```

Script Output x | Script Output 1 x | Query Result x

SQL | All Rows Fetched: 1 in 0.002 seconds

COUNT(MCAT_ID)	MCAT_ID
1	101



3) Average Project cost ?

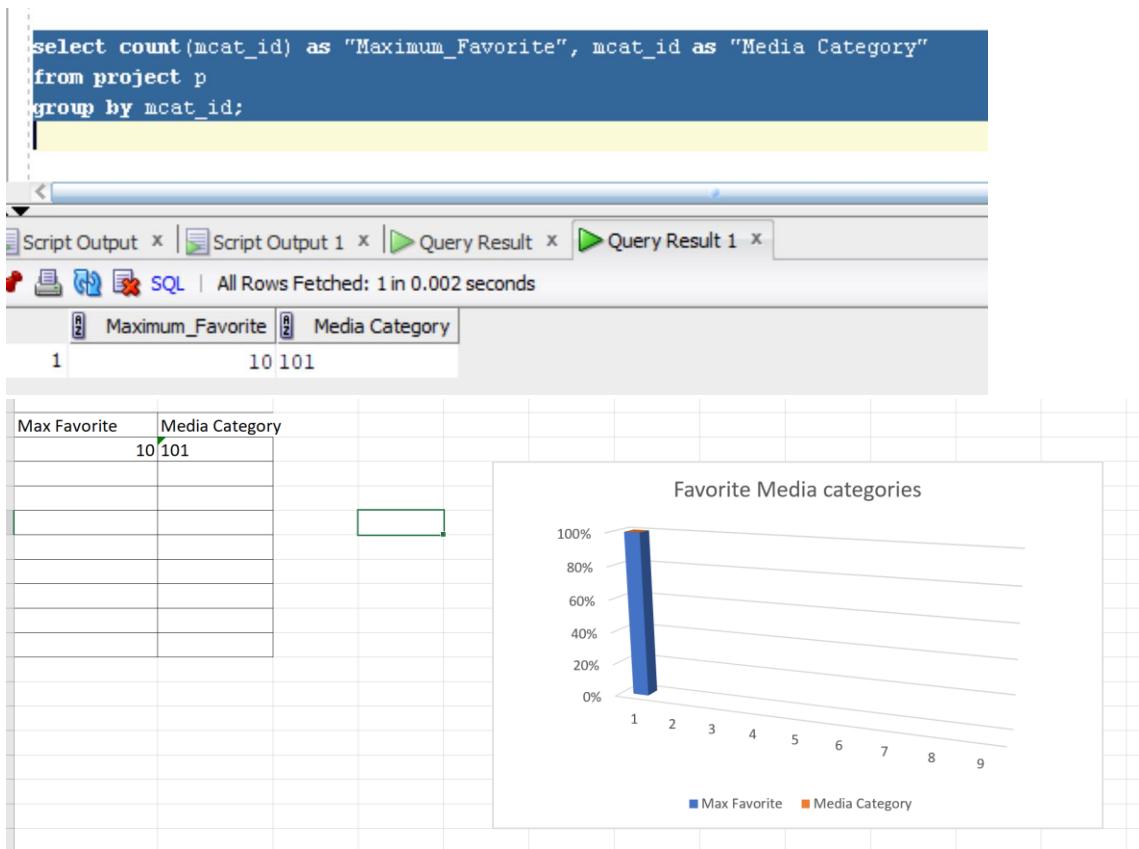
```
select avg(proj_cost) from project;
```

Query Result X

SQL | All Rows Fetched: 1 in 0.001 seconds

AVG(PROJ_COST)
43500

4) Which media is favorite among projects i.e. used by most of the projects



5) Find out which media company has been allocated for the longest duration?

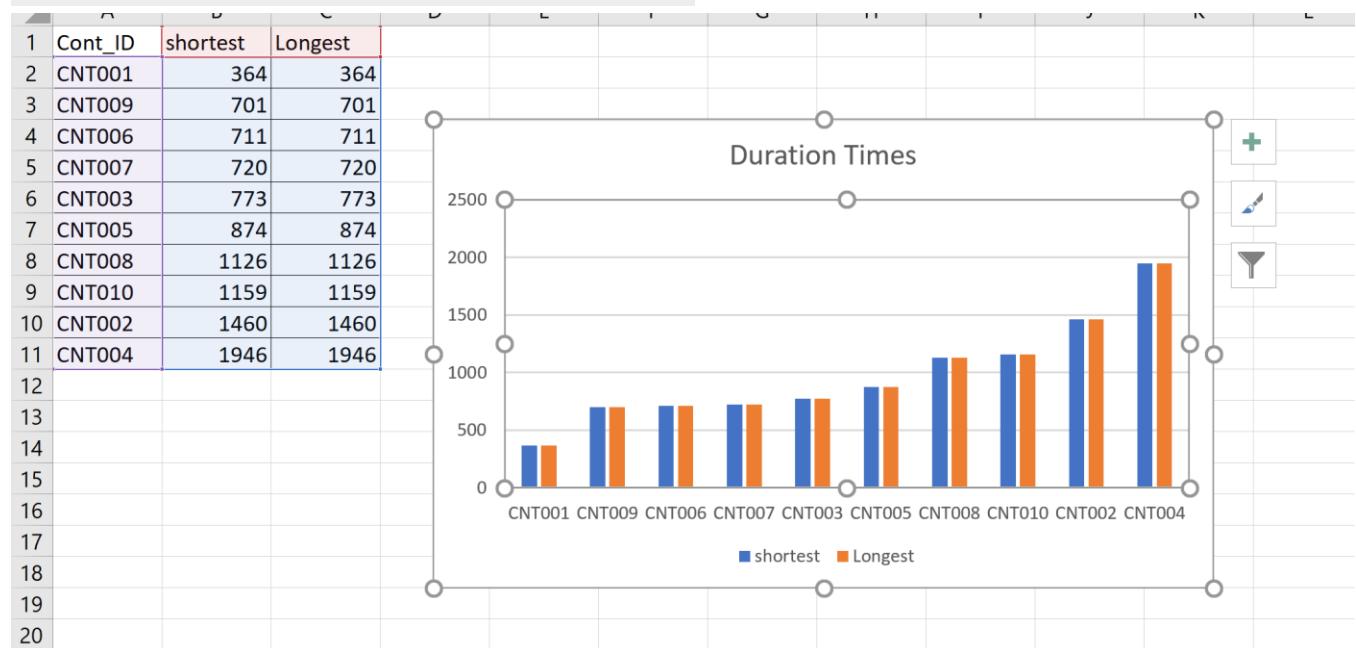
6) Find out which company has the shortest duration ?

```
select cont_id,
       min(cont_end- cont_start) as shortest,
       max(cont_end- cont_start) as Longest
  from contracts
 group by cont_id
 order by 2,3;
```

Query Result x

SQL | All Rows Fetched: 10 in 0.006 seconds

	CONT_ID	SHORTEST	LONGEST
1	CNT001	364	364
2	CNT009	701	701
3	CNT006	711	711
4	CNT007	720	720
5	CNT003	773	773
6	CNT005	874	874
7	CNT008	1126	1126
8	CNT010	1159	1159
9	CNT002	1460	1460
10	CNT004	1946	1946



7) Which project has implemented the most expensive media project?

```
select *
from project
where proj_cost = (
select max(PROJ_COST)
from project);
```

Script Output x | Script Output 1 x | Query Result x | Query Result 1 x  
SQL | All Rows Fetched: 1 in 0.003 seconds

	PROJID	PROJNAME	PROJ_TITLE	PROJ_COST	MCAT_ID	AGENT_ID	SPONSOR_ID	CONT_ID
1	P009	Best Deals	Best Deals Bestbuy	92000	101	A0004	SP1006	CNT009

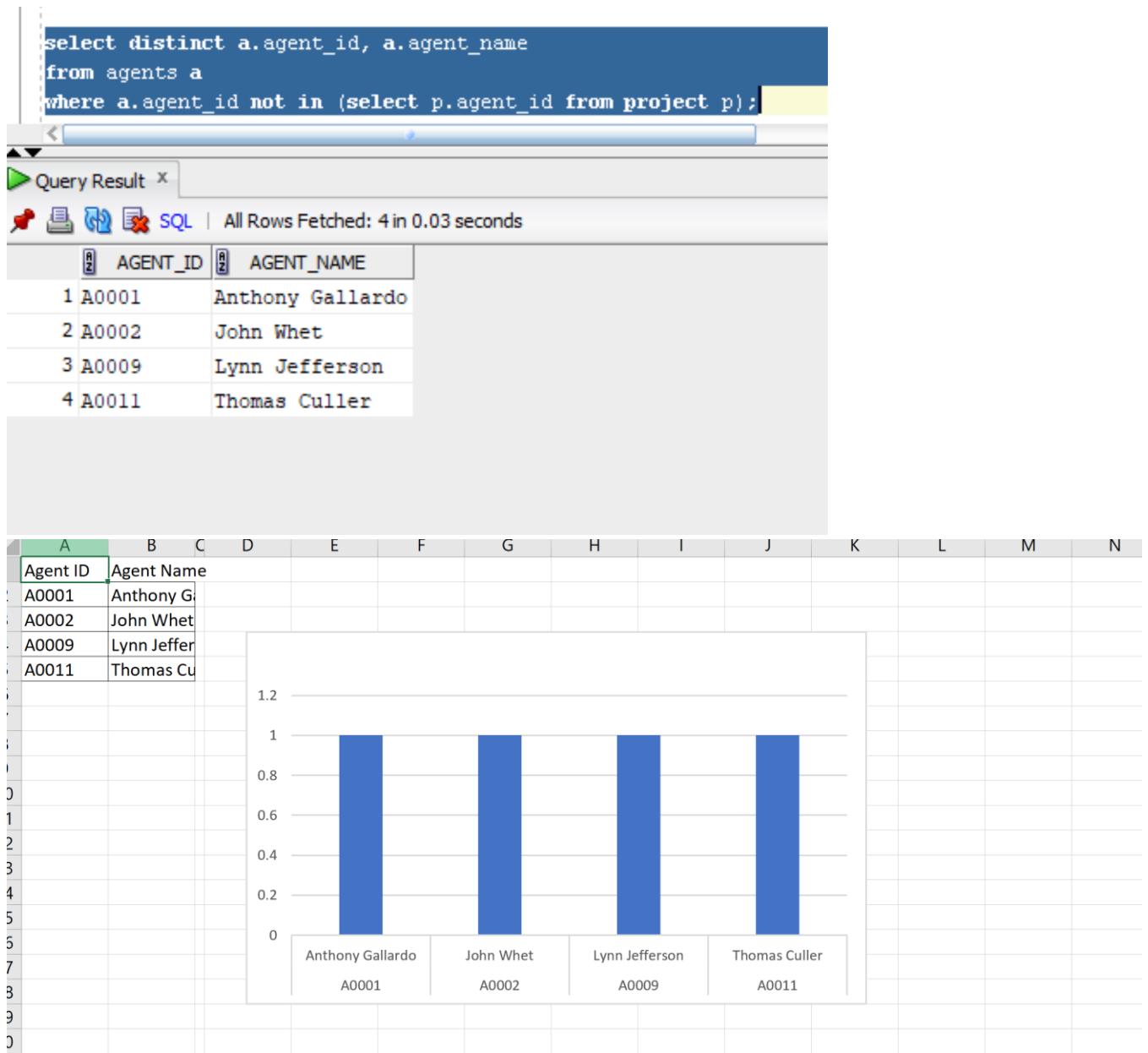
1  
2 Most Expensive Project Name  
3 92000 Best Deals  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
...

**Most Expensive project**

A bar chart titled "Most Expensive project" showing the percentage distribution of project costs. The y-axis represents percentages from 0% to 100%. The x-axis shows categories 1 through 9. Category 1 has a blue bar reaching 100%, and category 2 has a small orange bar near 0%. A legend at the bottom indicates that blue represents "Most Expensive" and orange represents "Project Name".

Category	Value
1	100%
2	~1%
3	0%
4	0%
5	0%
6	0%
7	0%
8	0%
9	0%

8) Which agents have currently no projects?

**9) Average duration of projects?**

```
select avg(cont_end- cont_start) as Average from contracts;
```

The screenshot shows the MySQL Workbench interface. A query window contains the SQL statement: "select avg(cont\_end- cont\_start) as Average from contracts;". Below the query window is a "Query Result" tab showing the output: "AVERAGE" with a value of "983.4". The status bar indicates "All Rows Fetched: 1 in 0.002 seconds".

10) What media categories are currently not being used in any projects?

```
select distinct a.mcat_id, a.media_type
from media_categories a
where a.mcat_id not in (select p.mcat_id from project p);
```

The screenshot shows the MySQL Workbench interface. A query window contains the SQL statement: "select distinct a.mcat\_id, a.media\_type from media\_categories a where a.mcat\_id not in (select p.mcat\_id from project p);". Below the query window is a "Query Result" tab showing the output: a table with columns "MCAT\_ID" and "MEDIA\_TYPE", containing 10 rows of data. The data is as follows:

	MCAT_ID	MEDIA_TYPE
1	111	Movie Theaters
2	109	Media Blitz
3	102	TV
4	106	Brochures
5	110	Promotions
6	105	Internet
7	108	Multimedia
8	103	Radio
9	104	Billboards Ads
10	107	Other Print Media

The status bar indicates "All Rows Fetched: 10 in 0.004 seconds".

## Web Presence for Your Application

### Table creation

The screenshot shows the Microsoft Visual Studio IDE interface. The main window displays the code for a file named "MediaAD.aspx". The code contains VBScript for creating a table named "Media\_Advertisement" in a database. A tooltip is visible over the line of code "cmdSelect.ExecuteNonQuery()", showing the full command: "FNU Pragya Pramudita A20430719". The bottom status bar indicates the code is ready.

```

1  <%@ Page Language = "VB" %>
2  <%@ Import Namespace = "System.Data.OleDb" %>
3  <!DOCTYPE html>
4  <html xmlns = "http://www.w3.org/1999/xhtml">
5  |<head id = "Head1" runat = "server">
6  | |<title>Connection</title>
7  |<script runat = "server">
8  | |Sub Create_Click(Src As Object, E As EventArgs)
9  | |Try
10 | | |'Connect to the Database
11 | | |Dim cnAccess As New OleDbConnection()
12 | | |"Provider = Microsoft.Jet.OLEDB.4.0;" &
13 | | |"Data Source = C:\Users\Pragya\Documents\MSFall 2018\ITM 523 - Adv topics in Data Mgmt\Final Project\AshlandAdvertisingAgency.mdb")
14 | | |Dim sSelectSQL As String = "CREATE TABLE Media_Advertisement"
15 | | |sSelectSQL &= "([AD_ID] TEXT(5) PRIMARY KEY, [AD_TYPE] TEXT(50),"
16 | | |sSelectSQL &= "[AGENT_ID] Text(8),[Budget] Number,"
17 | | |sSelectSQL &= "[Cost] Number)"
18 |
19 | | |Dim cmdSelect As New OleDbCommand(sSelectSQL, cnAccess)
20 | | |cnAccess.Open()
21 | | |cmdSelect.ExecuteNonQuery()
22 | | |cnAccess.Close()
23 | | |msg.Text = "Table Created!"
```

The screenshot shows the Microsoft Visual Studio IDE interface. The main window displays the code for a file named "MediaAD.aspx". The code includes a "GoTo\_Click1" subroutine which performs a redirect to "menu.aspx". A tooltip is visible over the line of code "cmdSelect.ExecuteNonQuery()", showing the full command: "FNU Pragya Pramudita A20430719". The bottom status bar indicates the code is ready.

```

32  Response.Redirect("form2.aspx")
33  End Sub
34
35  Sub GoTo_Click1(Src As Object, E As EventArgs)
36  | Response.Redirect("menu.aspx")
37  End Sub
38
39  </script>
40  </head>
41  <body style = "font-family:Tahoma;">
42  |<h3>Ashland Advertising Agency:</h3>
43  <form runat = "server" id = "form1">
44  |<asp:Button Text = "Create Table" OnClick = "Create_Click"
45  |runat = "server" ID = "Button1" />
46  |<p><asp:Label id = "msg" runat = "server" /></p>
47  |<br />
48  |<asp:Button Text = "Insert Records" OnClick = "GoTo_Click"
49  |runat = "server" ID = "Button2" />
50  |<asp:Button Text = "Go to Main Menu" OnClick = "GoTo_Click1"
51  |runat = "server" ID = "Button3" />
52  </form>
53  </body>
54  </html>
```

<localhost:64472/MediaAD.aspx>

## Ashland Advertising Agency

[Create Table](#)[Insert Records](#)[Go to Main Menu](#)

	+	...	X
FNU Pragya Pramudita			
A20430719			

  <localhost:64472/MediaAD.aspx>

## Ashland Advertising Agency

[Create Table](#)

Table Created!

[Insert Records](#)[Go to Main Menu](#)

	+	...	X
FNU Pragya Pramudita			
A20430719			

The screenshot shows the Microsoft Access application interface. The ribbon is visible at the top with tabs like File, Home, Create, External Data, Database Tools, Fields, Table, and a search bar. The main area displays a table named "Media\_Advertisement". The table has six columns: AD\_ID, AD\_TYPE, AGENT\_ID, Budget, Cost, and Click to Add. A new record is being added, with the AD\_ID field containing an asterisk (\*) and the AD\_TYPE field containing "FNU Pragya Pramudita" and "A20430719".

## Record Insertion

The screenshot shows Microsoft Visual Studio with the project "AAA\_WEBSITE" open. The code editor window displays the file "MediaAdInsert.aspx.vb". The code is written in VB.NET and contains a Subroutine named "Insert\_Click". The subroutine uses a Try-Catch block to connect to an OleDbConnection named "cnAccess" and execute an INSERT SQL statement. The SQL statement constructs the insert statement based on user input from text boxes AdId, AdType, AgentID, Budget, and Cost.

```

1 <%@ Page Language = "VB" %>
2 <%@ Import Namespace = "System.Data.OleDb" %>
3 <!DOCTYPE html>
4 <html xmlns = "http://www.w3.org/1999/xhtml">
5 <head id="Head1" runat = "server">
6 <title>Connection</title>
7 <script runat = "server">
8     Sub Insert_Click(Src As Object, E As EventArgs)
9         Try
10             'Connect to the Database
11             Dim cnAccess As New OleDbConnection(
12                 "Provider = Microsoft.Jet.OLEDB.4.0;" &
13                 "Data Source = C:\Users\Pragya\Documents\MS\Fall 2018\ITM 523 - Adv topics in Data Mgmt\Final Project\AshlandAdvertisingAgency.mdb")
14
15             cnAccess.Open()
16             Dim sid, sAdtype, sAgentid, sbudget, scost, sInsertSQL As String
17             sid = AdId.Text
18             sAdtype = AdType.Text
19             sAgentid = AgentID.Text
20             sbudget = Budget.Text
21             scost = Cost.Text
22
23             'Construct the insert statement
24             sInsertSQL = "INSERT INTO MediaAdvertising(" &
25             "[AdId], [AdType], [AgentID], [budget], [cost]) VALUES" &
26             "(" & sid & ", " & sAdtype & ", " & sAgentid & ", " & sbudget & ", " & scost & ");"
    
```

Connection    +

localhost:64472/MediaAdInsert.aspx

### Enter Details to table

Ad ID:

Ad Type:

Agent ID:

Budget:

Cost:

FNU Pragya Pramudita  
A20430719

localhost:64472/MediaAdInsert.aspx

Data Inserted to table!

### Enter Details to table

Ad ID:

Ad Type:

Agent ID:

Budget:

Cost:

**MediaAdvertising**

ADid	AdType	AgentID	Budget	Cost	Click to Add
AD001	Mobile Ad	A0001	6000	3000	
Ad002	Mobile Ad	A0001	6000	2000	
AD003	Mobile Ad	A0001	6000	2000	
AD004	Billboard	A0006	8000	6000	
AD005	Informercials	A0008	8000	7000	
AD006	Classified	A0005	10000	2000	
AD007	Radio	A0004	5000	3000	
AD008	TV	A0003	7000	3000	
AD009	Facebook AD	A0009	7000	3000	
AD010	GoogleAds	A0009	7000	5000	

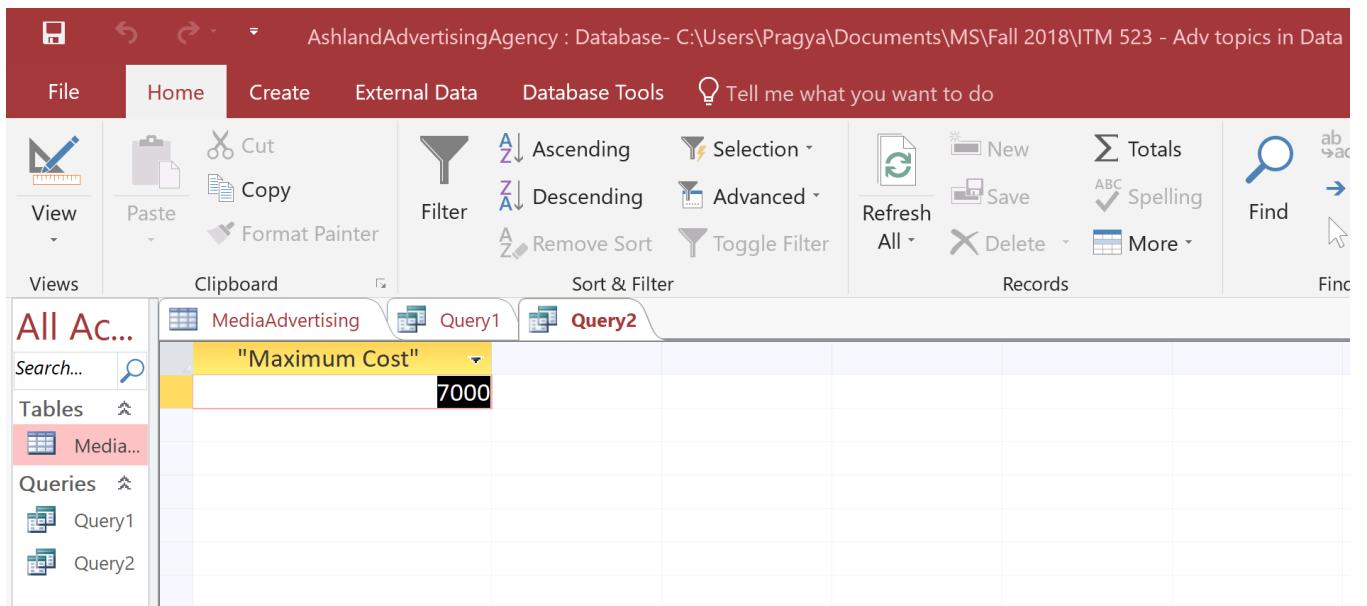
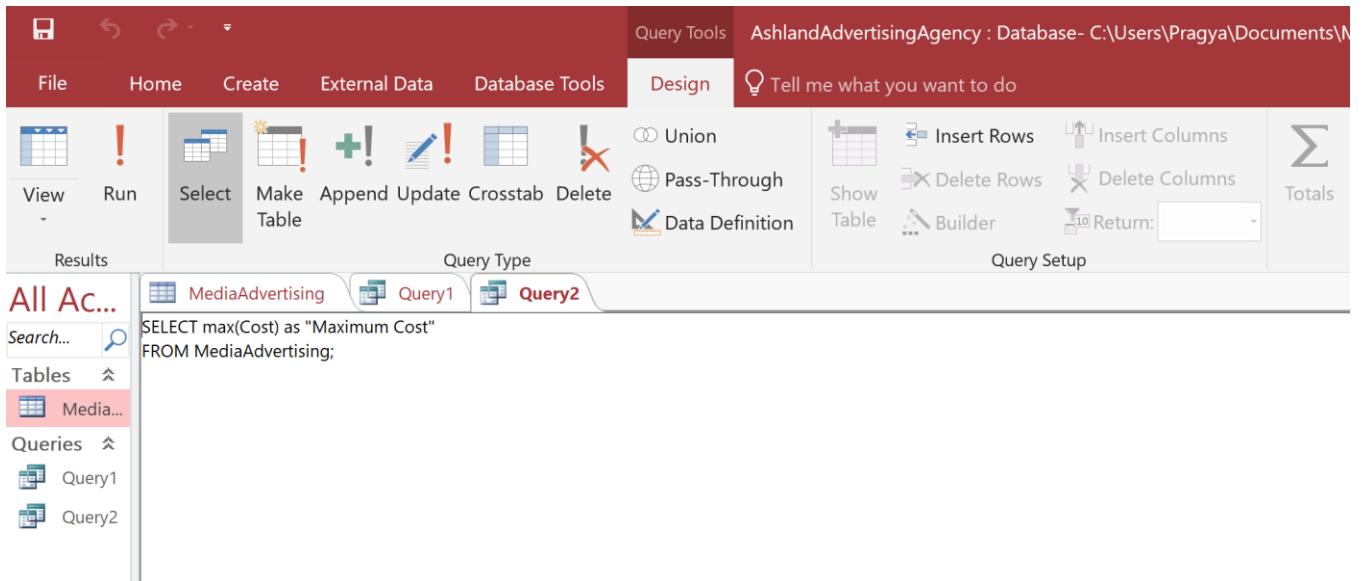
## Analytics performed

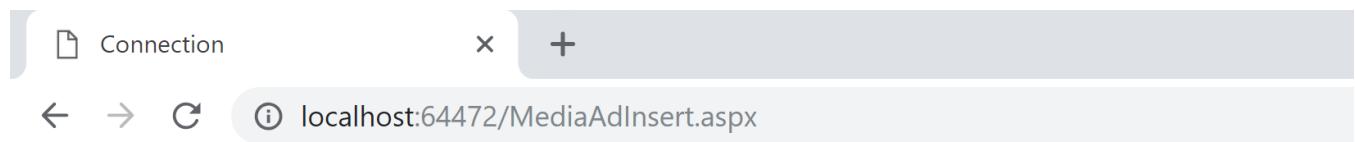
**Query1**

```
SELECT sum(Budget) as "Total Budget"
FROM MediaAdvertising;
```

The screenshot shows the Microsoft Access application interface. The title bar reads "AshlandAdvertisingAgency : Database- C:\Users\Pr...". The ribbon menu is visible with tabs: File, Home, Create, External Data, Database Tools, and Tell me. The Home tab is selected. The clipboard group contains icons for View (with dropdown), Paste (with dropdown), Cut, Copy, Format Painter, Filter, Sort & Filter, Selection, Advanced, and Toggle. The Views group shows "All Ac..." and a search bar. The Queries group shows "MediaAdvertising" and "Query1" (selected). The main area displays a query result for "Query1" titled "Total Budget". The result shows one row with the value "70000".

	"Total Budget"
	70000





Data Inserted to table!

## Enter Details to table

Ad ID Ad002

Ad Type: Mobile Ad

Agent ID: A0001

Budget: 6000

Cost: 2000

Insert

Retrieve Records

← → ⌂ i localhost:64472/MediaAdInsert.aspx

Data Inserted to table!

## Enter Details to table

Ad ID	AD003
Ad Type:	Mobile Ad
Agent ID:	A0001
Budget:	6000
Cost:	2000

Data Inserted to table!

## Enter Details to table

Ad ID	AD004
Ad Type:	Billboard
Agent ID:	A0006
Budget:	8000
Cost:	6000



Data Inserted to table!

## Enter Details to table

Ad ID

Ad Type:

Agent ID:

Budget:

Cost:



Data Inserted to table!

## Enter Details to table

Ad ID: AD006

Ad Type: Classified

Agent ID: A0005

Budget: 10000

Cost: 2000



Data Inserted to table!

## Enter Details to table

Ad ID: AD007

Ad Type: Radio

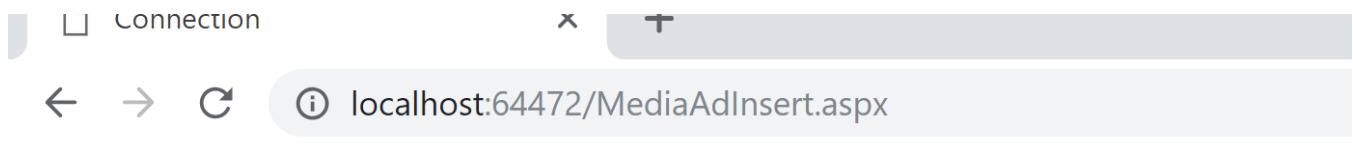
Agent ID: A0004

Budget: 5000

Cost: 3000

Insert

Retrieve Records



Data Inserted to table!

## Enter Details to table

Ad ID	AD008
Ad Type:	TV
Agent ID:	A0003
Budget:	7000
Cost:	3000



Data Inserted to table!

## Enter Details to table

Ad ID	<input type="text" value="AD009"/>
Ad Type:	<input type="text" value="Facebook AD"/>
Agent ID:	<input type="text" value="A0009"/>
Budget:	<input type="text" value="7000"/>
Cost:	<input type="text" value="3000"/>



Data Inserted to table!

## Enter Details to table

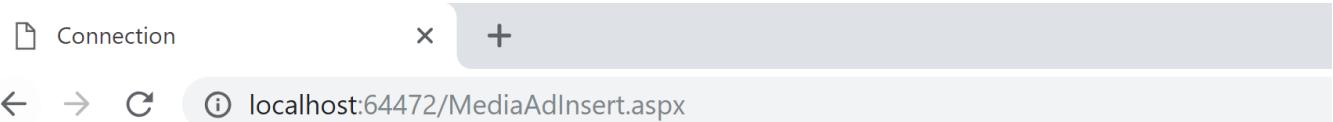
Ad ID

Ad Type:

Agent ID:

Budget:

Cost:



Data Inserted to table!

## Enter Details to table

Ad ID	AD011
Ad Type:	Celebrity Branding
Agent ID:	A007
Budget:	10000
Cost:	7000

## Phase X Systems Analysis and Viewpoints

**Business Intelligence** systems are based on real - time data scenarios. It produces key performance indicators and trends but does not let you know what this information will later look like as examples and experiments. Given its static nature, BI information sources tend to be pre - arranged and gradually included. Previously, the IT office has regularly claimed and worked on BI frameworks, sending knowledge to examiners who have translated it, but the analysts are in control with data science. The new Big Data arrangements are intended for experts who invest very little energy in ' IT housekeeping,' but instead focus on researching information and forecasting the basis of business choices and decisions. Information should be adaptable, like any business resource. BI frameworks tend to be stored and isolated, which means that it is not easy to install over the company. BI helps respond to queries that we know.

Business Analytics relates to the investigation of historical data from many source systems by means of statistical analysis, quantitative analysis, data extraction, predictive modeling and other technologies and techniques for identifying trends and understanding information that can drive business change and support successful business practices that continue. It was mainly focused on reporting. In this approach to BI, highly formatted reports are produced by a few people, usually developers of reports, and distributed to a whole department or organization. More recently, the trend in analytics was to provide people with the tools to get their own answers to questions about their data. Now it's about letting business people themselves become analysts.

In Designing the database system for Ashland advertising agency(AAA), number of steps were involved, and this project was done in many numbers of phases .

In the initial phase ,we did the analysis based on various business rules and analytic function.

We completed our conceptual and logical model by analyzing the customer requirement and data from the survey were then used for a descriptive and analytical approach based on the study of the background information. In initial phase one of the project we discussed various analytics which was necessary for AAA in order to identify issues and finding out the suitable data and in step 9 we actually performed those analytics which enabled us in summarizing and communicating the result in the form of screen shot and various kinds of graphs. In phase 6 ,created all the table which were designed in initial phase and in addition to that we have added two additional tables "Media\_allocation" and "MediaAdversting".

In phase 7 ,populated the records into those table and in the next phase 8 we performed many queries to eliminate all kinds of anomaly (Update ,delete ,insert) with the help of SAL queries. To check the robustness of the tables various test cases were performed in Phase 8 .

After testing all the table ,we created web presence of AAA with the help of visual studio and MS access which helped in creating table and data collection .We performed analytics on table "MediaAdvertising" as well .

Then finally proper data base design for AAA was created in which table were free from almost all the anomalies.