ITMD 523 – Advanced Topics in Data Management

Final Project Report

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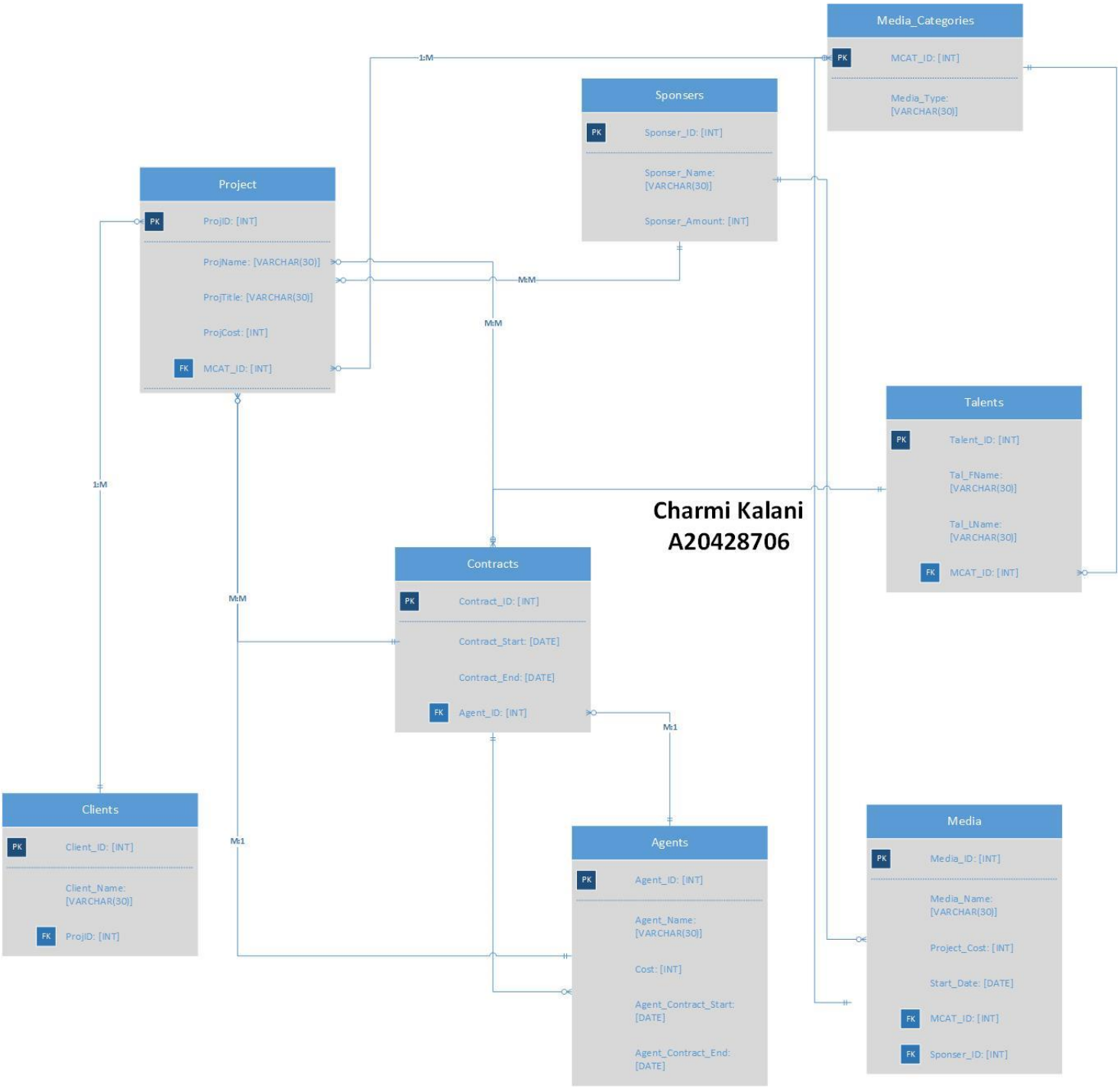
[Phase VI]

Physical Diagram of the Database.

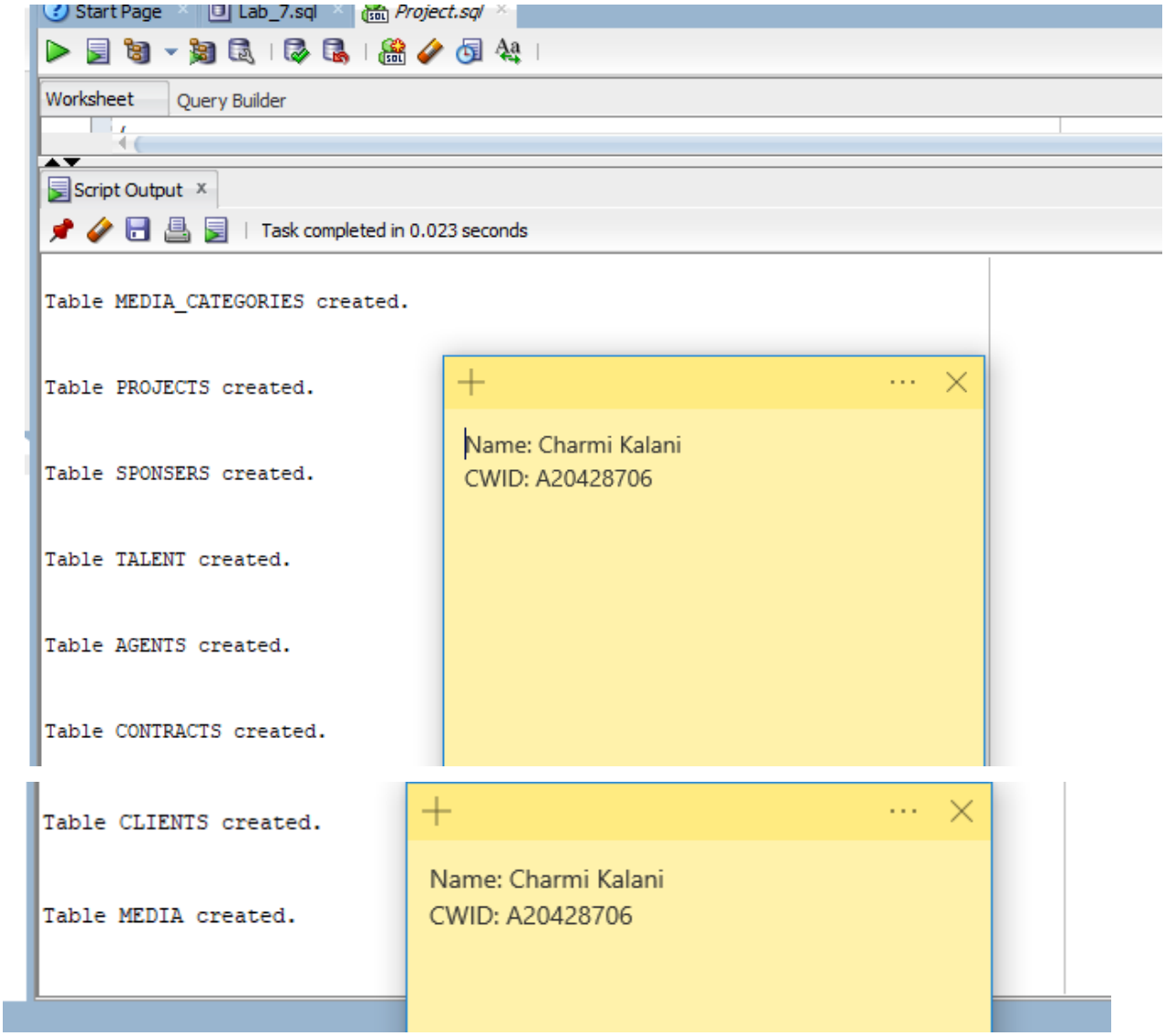


[Phase VII]

CREATE TABLES:

```
CREATE TABLE Media_Categories
(
  MCAT_id  NUMBER NOT NULL,
  Media_type VARCHAR(30),
  CONSTRAINT MCAT_id_pk PRIMARY KEY (MCAT_id)
);

CREATE TABLE Projects
(
  proj_id  NUMBER NOT NULL,
  proj_title VARCHAR2(30),
  proj_Cost NUMBER,
  MCAT_id CONSTRAINT fk_MCAT_id REFERENCES Media_Categories(MCAT_id),
  CONSTRAINT proj_id_pk PRIMARY KEY (proj_id)
);

CREATE TABLE Sponsers
(
  Sponser_id  NUMBER NOT NULL,
  Sponser_Name VARCHAR(30),
  Sponser_Amount NUMBER,
  CONSTRAINT Sponser_id_pk PRIMARY KEY (Sponser_id)
);

CREATE TABLE Talent
(
  Talent_id NUMBER NOT NULL,
  Talent_Fname VARCHAR(30),
  Talent_Lname VARCHAR(30),
  MCAT_id CONSTRAINT fk_MCAT_idt REFERENCES Media_Categories(MCAT_id),
  CONSTRAINT Talent_id_pk PRIMARY KEY (Talent_id)
);

CREATE TABLE Agents
(
  Agent_id NUMBER NOT NULL,
  Agent_Name VARCHAR(30),
  Costs NUMBER,
  Agent_Contract_Start DATE,
  Agent_Contract_End DATE,
  CONSTRAINT Agent_id_pk PRIMARY KEY (Agent_id)
```

```
);

CREATE TABLE Contracts
(
  Contract_id NUMBER NOT NULL,
  Contract_Start DATE,
  Contract_End DATE,
  CONSTRAINT Contract_id_pk PRIMARY KEY (Contract_id),
  Agent_id CONSTRAINT fk_Agent_id REFERENCES Agents(Agent_id)
);

CREATE TABLE Clients
(
  Client_id NUMBER NOT NULL,
  Client_Name VARCHAR(30),
  CONSTRAINT Client_id_pk PRIMARY KEY (Client_id),
  proj_id CONSTRAINT fkc_proj_id REFERENCES Projects(proj_id)
);

CREATE TABLE Media
(
  Media_id NUMBER NOT NULL,
  Project_Cost NUMBER,
  Start_Date DATE,
  CONSTRAINT Media_id_pk PRIMARY KEY (Media_id),
  MCAT_id CONSTRAINT fkm_MCAT_id REFERENCES Media_Categories(MCAT_id),
  Sponser_id CONSTRAINT fk_Sponser_id REFERENCES Sponsers(Sponser_id)
);
```



Insert Values Code:

INSERT INTO Projects(proj_ID, proj_title, proj_cost, MCAT_id) VALUES (1001, 'Title 1', 10000, 1);
INSERT INTO Projects(proj_ID, proj_title, proj_cost, MCAT_id) VALUES (1002, 'Title 2', 34000, 2);
INSERT INTO Projects(proj_ID, proj_title, proj_cost, MCAT_id) VALUES (1003, 'Title 3', 67000, 3);
INSERT INTO Projects(proj_ID, proj_title, proj_cost, MCAT_id) VALUES (1004, 'Title 4', 70000, 4);
INSERT INTO Projects(proj_ID, proj_title, proj_cost, MCAT_id) VALUES (1005, 'Title 5', 92000, 5);
INSERT INTO Projects(proj_ID, proj_title, proj_cost, MCAT_id) VALUES (1006, 'Title 6', 15000, 1);
INSERT INTO Projects(proj_ID, proj_title, proj_cost, MCAT_id) VALUES (1007, 'Title 7', 46000, 2);
INSERT INTO Projects(proj_ID, proj_title, proj_cost, MCAT_id) VALUES (1008, 'Title 8', 55000, 3);
INSERT INTO Projects(proj_ID, proj_title, proj_cost, MCAT_id) VALUES (1009, 'Title 9', 80000, 4);
INSERT INTO Projects(proj_ID, proj_title, proj_cost, MCAT_id) VALUES (1010, 'Title 10', 20000, 6);

```
INSERT INTO Media_Categories(MCAT_ID,Media_Type) VALUES (1, 'TV Ad');
INSERT INTO Media_Categories(MCAT_ID,Media_Type) VALUES (2, 'Radio Ad');
INSERT INTO Media_Categories(MCAT_ID,Media_Type) VALUES (3, 'Posters');
INSERT INTO Media_Categories(MCAT_ID,Media_Type) VALUES (4, 'Newspaper Ad');
INSERT INTO Media_Categories(MCAT_ID,Media_Type) VALUES (5, 'Social Media Ad');
INSERT INTO Media_Categories(MCAT_ID,Media_Type) VALUES (6, 'Banners');


INSERT INTO Sponsers(Sponser_id, sponser_name, sponser_amount) VALUES (201, 'Pepsico', 50000);
INSERT INTO Sponsers(Sponser_id, sponser_name, sponser_amount) VALUES (202, 'Nokia', 75000);
INSERT INTO Sponsers(Sponser_id, sponser_name, sponser_amount) VALUES (203, 'Coca Cola', 80000);
INSERT INTO Sponsers(Sponser_id, sponser_name, sponser_amount) VALUES (204, 'Unilever', 35000);
INSERT INTO Sponsers(Sponser_id, sponser_name, sponser_amount) VALUES (205, 'Deloitte', 76400);
INSERT INTO Sponsers(Sponser_id, sponser_name, sponser_amount) VALUES (206, 'Accenture', 37900);
INSERT INTO Sponsers(Sponser_id, sponser_name, sponser_amount) VALUES (207, 'Ford', 29900);
INSERT INTO Sponsers(Sponser_id, sponser_name, sponser_amount) VALUES (208, 'Johnson and Johnson',
59900);
INSERT INTO Sponsers(Sponser_id, sponser_name, sponser_amount) VALUES (209, 'Nestle', 70800);
INSERT INTO Sponsers(Sponser_id, sponser_name, sponser_amount) VALUES (200, 'Toyota', 80900);


INSERT INTO Talent(Talent_id, Talent_Fname,Talent_Lname, MCAT_id) VALUES (300, 'Harry','Potter', 6);
INSERT INTO Talent(Talent_id, Talent_Fname,Talent_Lname, MCAT_id) VALUES (301,
'Hermoine','Granger', 4);
INSERT INTO Talent(Talent_id, Talent_Fname,Talent_Lname, MCAT_id) VALUES (302, 'Ross','Geller', 2);
INSERT INTO Talent(Talent_id, Talent_Fname,Talent_Lname, MCAT_id) VALUES (303, 'Monica','Geller',
4);
INSERT INTO Talent(Talent_id, Talent_Fname,Talent_Lname, MCAT_id) VALUES (304, 'Joey','Tribbiani',
1);
INSERT INTO Talent(Talent_id, Talent_Fname,Talent_Lname, MCAT_id) VALUES (305, 'Pheobe','Buffay',
3);
INSERT INTO Talent(Talent_id, Talent_Fname,Talent_Lname, MCAT_id) VALUES (306, 'Rachel','Green',
4);
INSERT INTO Talent(Talent_id, Talent_Fname,Talent_Lname, MCAT_id) VALUES (307, 'Chandler','Bing',
5);
INSERT INTO Talent(Talent_id, Talent_Fname,Talent_Lname, MCAT_id) VALUES (308, 'Ted','Mosby', 2);
INSERT INTO Talent(Talent_id, Talent_Fname,Talent_Lname, MCAT_id) VALUES (309,
'Robin','Scherbatsky', 3);


INSERT INTO Agents(Agent_id, Agent_Name, Costs, Agent_Contract_Start, Agent_Contract_End) VALUES
(400, 'WPP Group',90000, TO_DATE('20/03/2018', 'DD/MM/YYYY'), TO_DATE('20/03/2019',
'DD/MM/YYYY'));
INSERT INTO Agents(Agent_id, Agent_Name, Costs, Agent_Contract_Start, Agent_Contract_End) VALUES
(401, 'ABB Group',80000, TO_DATE('07/10/2016', 'DD/MM/YYYY'), TO_DATE('07/10/2017',
'DD/MM/YYYY'));
```

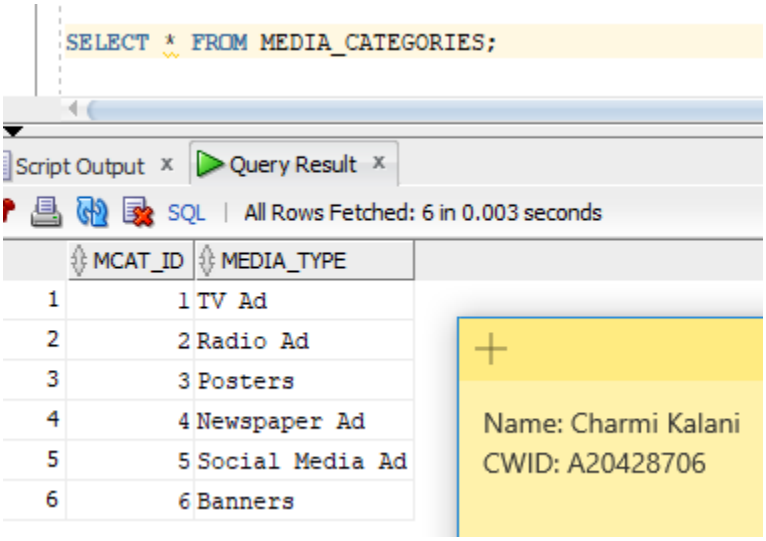
```
INSERT INTO Agents(Agent_id, Agent_Name, Costs, Agent_Contract_Start, Agent_Contract_End) VALUES
(402, 'CN Group',55000, TO_DATE('15/05/2015', 'DD/MM/YYYY'), TO_DATE('15/05/2016',
'DD/MM/YYYY'));
INSERT INTO Agents(Agent_id, Agent_Name, Costs, Agent_Contract_Start, Agent_Contract_End) VALUES
(403, 'RT Group',85000, TO_DATE('26/06/2017', 'DD/MM/YYYY'), TO_DATE('26/06/2018',
'DD/MM/YYYY'));
INSERT INTO Agents(Agent_id, Agent_Name, Costs, Agent_Contract_Start, Agent_Contract_End) VALUES
(404, 'GT Group',47000, TO_DATE('23/05/2018', 'DD/MM/YYYY'), TO_DATE('23/05/2019',
'DD/MM/YYYY'));
INSERT INTO Agents(Agent_id, Agent_Name, Costs, Agent_Contract_Start, Agent_Contract_End) VALUES
(405, 'HM Group',89000, TO_DATE('12/10/2015', 'DD/MM/YYYY'), TO_DATE('12/10/2016',
'DD/MM/YYYY'));
INSERT INTO Agents(Agent_id, Agent_Name, Costs, Agent_Contract_Start, Agent_Contract_End) VALUES
(406, 'FL Group',67000, TO_DATE('11/05/2015', 'DD/MM/YYYY'), TO_DATE('11/05/2016',
'DD/MM/YYYY'));
INSERT INTO Agents(Agent_id, Agent_Name, Costs, Agent_Contract_Start, Agent_Contract_End) VALUES
(407, 'TLK Group',77000, TO_DATE('07/11/2014', 'DD/MM/YYYY'), TO_DATE('07/11/2015',
'DD/MM/YYYY'));
INSERT INTO Agents(Agent_id, Agent_Name, Costs, Agent_Contract_Start, Agent_Contract_End) VALUES
(408, 'OLL Group',99000, TO_DATE('17/01/2017', 'DD/MM/YYYY'), TO_DATE('17/01/2018',
'DD/MM/YYYY'));
INSERT INTO Agents(Agent_id, Agent_Name, Costs, Agent_Contract_Start, Agent_Contract_End) VALUES
(409, 'PWW Group',46000, TO_DATE('14/02/2017', 'DD/MM/YYYY'), TO_DATE('14/02/2018',
'DD/MM/YYYY'));

INSERT INTO Contracts(Contract_id, Contract_Start, Contract_End, Agent_id) VALUES (1000,
TO_DATE('02/14/2017', 'MM/DD/YYYY'), TO_DATE('02/14/2018', 'MM/DD/YYYY'), 403);

INSERT INTO Contracts(Contract_id, Contract_Start, Contract_End, Agent_id) VALUES (1001,
TO_DATE('03/10/2018', 'MM/DD/YYYY'), TO_DATE('03/10/2019', 'MM/DD/YYYY'), 407);

INSERT INTO Contracts(Contract_id, Contract_Start, Contract_End, Agent_id) VALUES (1002,
TO_DATE('04/25/2015', 'MM/DD/YYYY'), TO_DATE('04/25/2018', 'MM/DD/YYYY'), 404);

INSERT INTO Contracts(Contract_id, Contract_Start, Contract_End, Agent_id) VALUES (1003,
TO_DATE('02/10/2016', 'MM/DD/YYYY'), TO_DATE('02/10/2018', 'MM/DD/YYYY'), 409);

INSERT INTO Contracts(Contract_id, Contract_Start, Contract_End, Agent_id) VALUES (1004,
TO_DATE('05/14/2016', 'MM/DD/YYYY'), TO_DATE('05/14/2017', 'MM/DD/YYYY'), 401);

INSERT INTO Contracts(Contract_id, Contract_Start, Contract_End, Agent_id) VALUES (1005,
TO_DATE('02/28/2016', 'MM/DD/YYYY'), TO_DATE('02/28/2018', 'MM/DD/YYYY'), 400);

INSERT INTO Contracts(Contract_id, Contract_Start, Contract_End, Agent_id) VALUES (1006,
TO_DATE('09/28/2014', 'MM/DD/YYYY'), TO_DATE('09/28/2017', 'MM/DD/YYYY'), 405);

INSERT INTO Contracts(Contract_id, Contract_Start, Contract_End, Agent_id) VALUES (1007,
TO_DATE('12/21/2015', 'MM/DD/YYYY'), TO_DATE('12/21/2017', 'MM/DD/YYYY'), 405);
```

```
INSERT INTO Contracts(Contract_id, Contract_Start, Contract_End, Agent_id) VALUES (1008,
TO_DATE('11/26/2016', 'MM/DD/YYYY'), TO_DATE('11/26/2018', 'MM/DD/YYYY'), 403);

INSERT INTO Contracts(Contract_id, Contract_Start, Contract_End, Agent_id) VALUES (1009,
TO_DATE('07/10/2015', 'MM/DD/YYYY'), TO_DATE('07/10/2017', 'MM/DD/YYYY'), 402);


INSERT INTO Clients(Client_id, Client_Name, Proj_id) VALUES (2000, 'Nimpy', 1001);
INSERT INTO Clients(Client_id, Client_Name, Proj_id) VALUES (2001, 'Sriof', 1003);
INSERT INTO Clients(Client_id, Client_Name, Proj_id) VALUES (2002, 'Atdye', 1005);
INSERT INTO Clients(Client_id, Client_Name, Proj_id) VALUES (2003, 'Hejow', 1004);
INSERT INTO Clients(Client_id, Client_Name, Proj_id) VALUES (2004, 'Ecuhe', 1003);
INSERT INTO Clients(Client_id, Client_Name, Proj_id) VALUES (2005, 'Zengvo', 1007);
INSERT INTO Clients(Client_id, Client_Name, Proj_id) VALUES (2006, 'Rumpes', 1008);
INSERT INTO Clients(Client_id, Client_Name, Proj_id) VALUES (2007, 'Gravmo', 1004);
INSERT INTO Clients(Client_id, Client_Name, Proj_id) VALUES (2008, 'Pyrrhin', 1003);
INSERT INTO Clients(Client_id, Client_Name, Proj_id) VALUES (2009, 'Hemib', 1006);


INSERT INTO Media(Media_id, Project_Cost, Start_Date, MCAT_id, Sponser_id) VALUES (4000, 76400,
TO_DATE('02/10/2016', 'MM/DD/YYYY'), 4, 205);
INSERT INTO Media(Media_id, Project_Cost, Start_Date, MCAT_id, Sponser_id) VALUES (4001, 80000,
TO_DATE('03/16/2016', 'MM/DD/YYYY'), 6, 203);
INSERT INTO Media(Media_id, Project_Cost, Start_Date, MCAT_id, Sponser_id) VALUES (4002, 80900,
TO_DATE('04/14/2016', 'MM/DD/YYYY'), 2, 200);
INSERT INTO Media(Media_id, Project_Cost, Start_Date, MCAT_id, Sponser_id) VALUES (4003, 75000,
TO_DATE('05/12/2016', 'MM/DD/YYYY'), 3, 202);
INSERT INTO Media(Media_id, Project_Cost, Start_Date, MCAT_id, Sponser_id) VALUES (4004, 29900,
TO_DATE('06/17/2016', 'MM/DD/YYYY'), 1, 207);
INSERT INTO Media(Media_id, Project_Cost, Start_Date, MCAT_id, Sponser_id) VALUES (4005, 59900,
TO_DATE('07/04/2016', 'MM/DD/YYYY'), 2, 208);
INSERT INTO Media(Media_id, Project_Cost, Start_Date, MCAT_id, Sponser_id) VALUES (4006, 59900,
TO_DATE('08/06/2016', 'MM/DD/YYYY'), 2, 208);
INSERT INTO Media(Media_id, Project_Cost, Start_Date, MCAT_id, Sponser_id) VALUES (4007, 37900,
TO_DATE('09/06/2016', 'MM/DD/YYYY'), 6, 206);
INSERT INTO Media(Media_id, Project_Cost, Start_Date, MCAT_id, Sponser_id) VALUES (4008, 76400,
TO_DATE('10/03/2016', 'MM/DD/YYYY'), 3, 205);
INSERT INTO Media(Media_id, Project_Cost, Start_Date, MCAT_id, Sponser_id) VALUES (4009, 70800,
TO_DATE('11/10/2016', 'MM/DD/YYYY'), 1, 209);
```

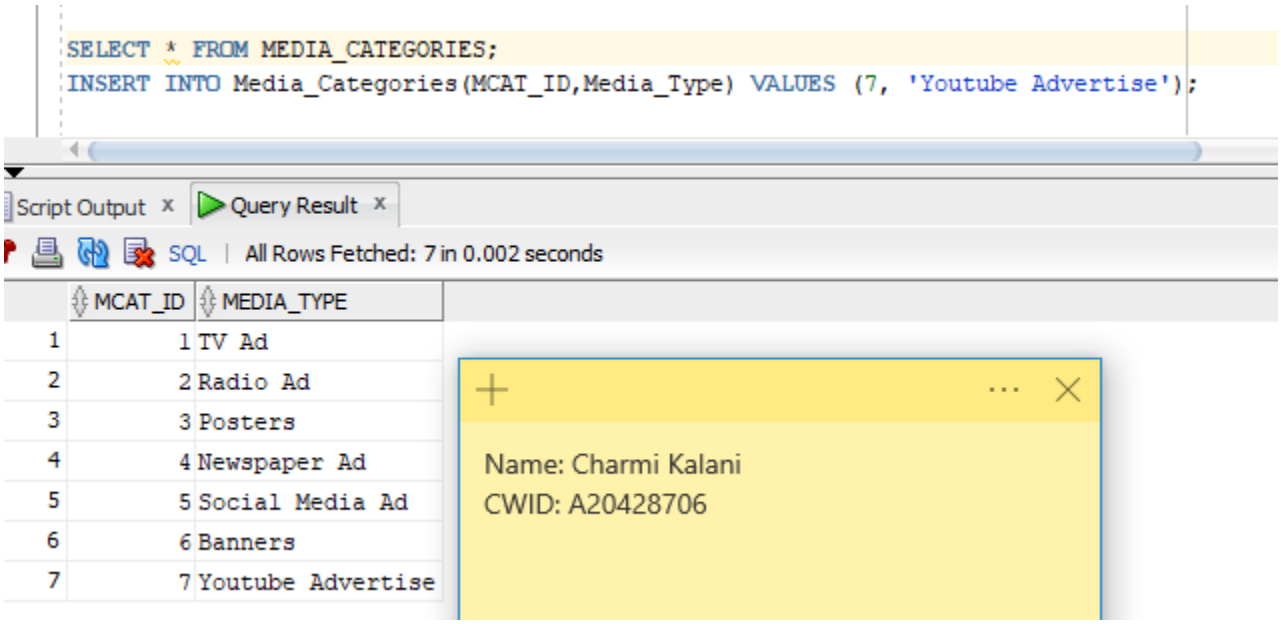
[Phase VIII]

Insert, Delete and Update anomalies work properly.

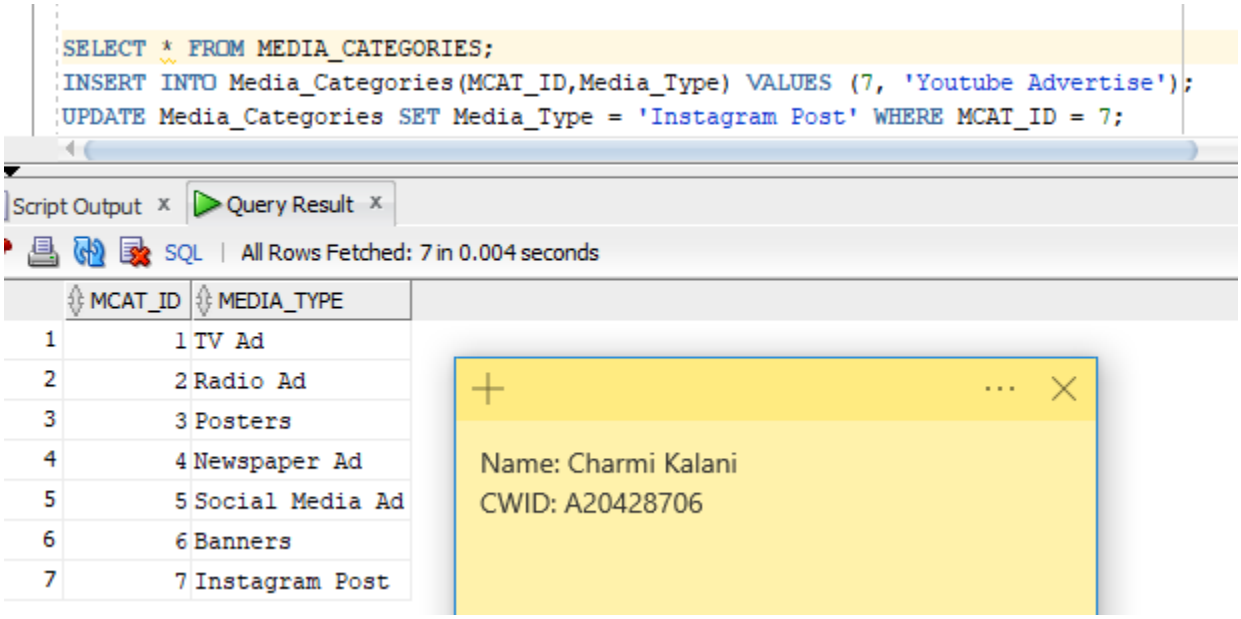
Before:



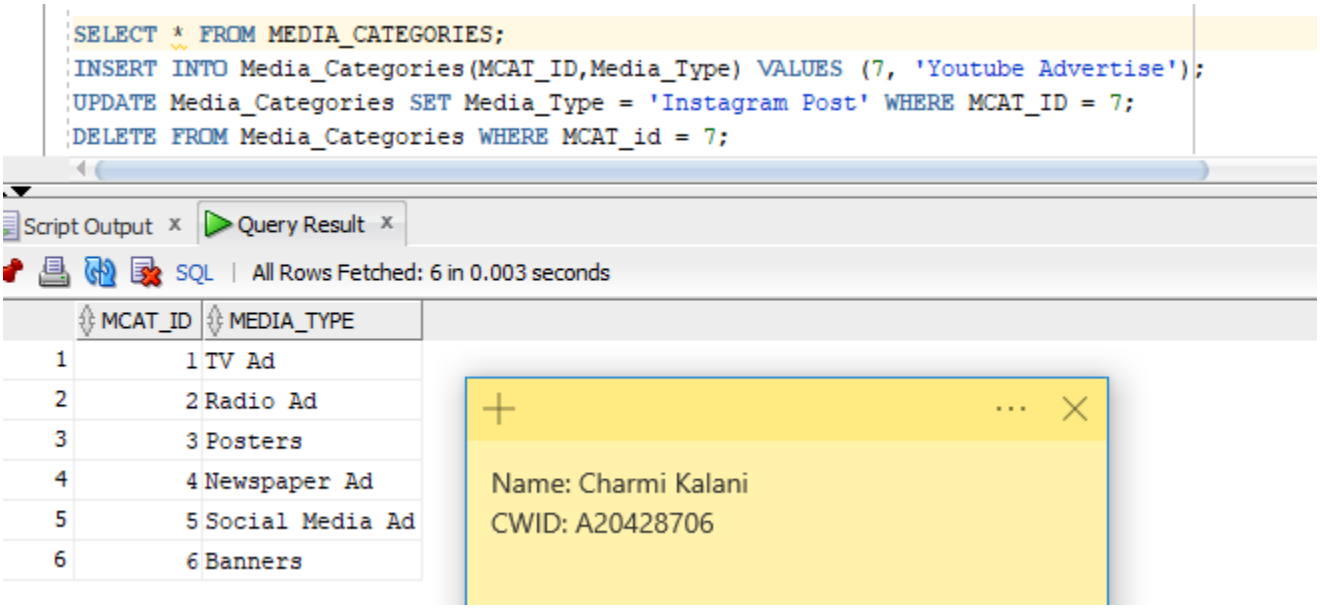
After Inserting Record:



After Updating Record:



After Deleting Record:

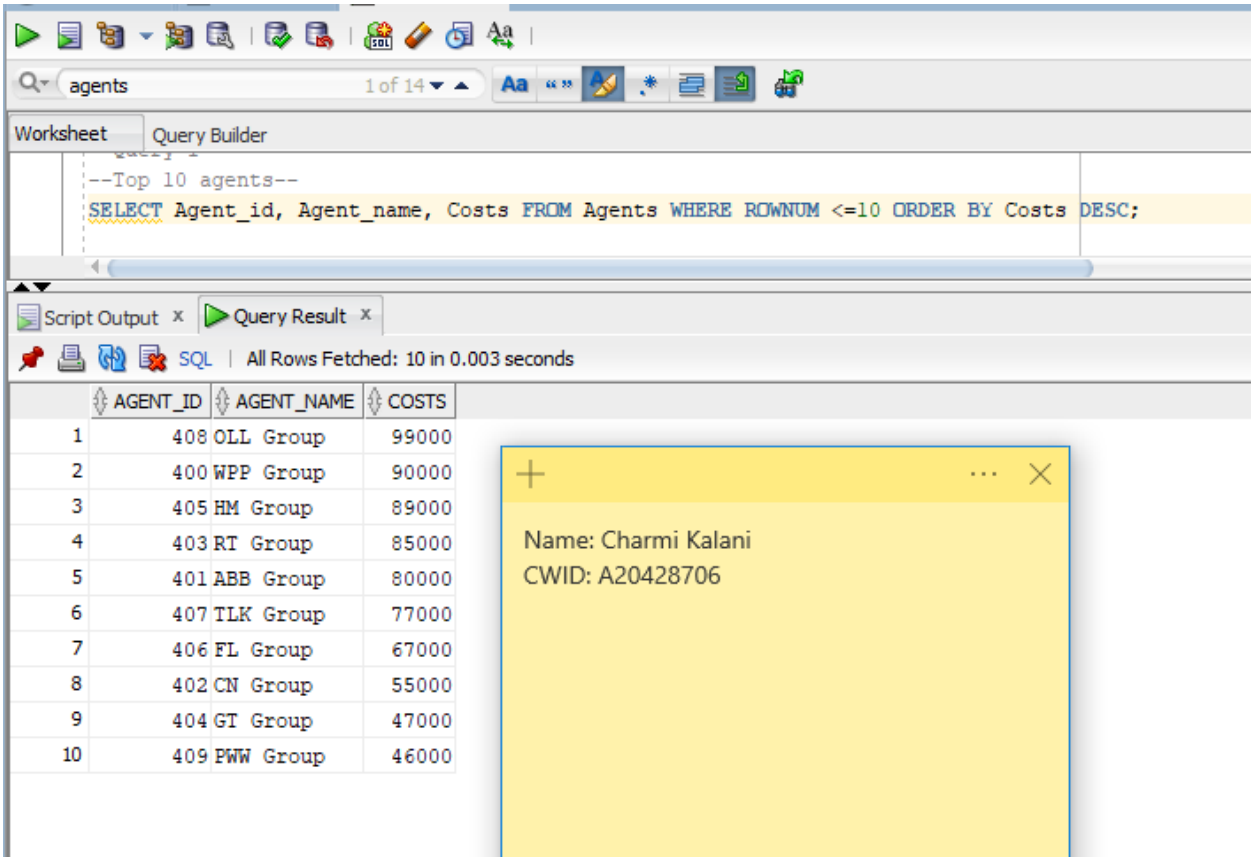


[Phase IX]

Queries:

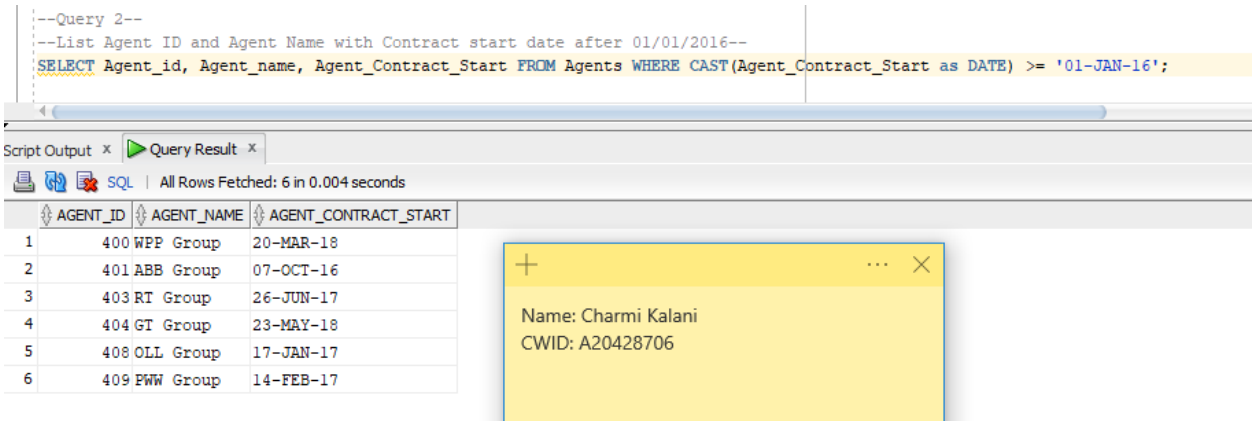
1. Listing Top 10 agents.

SELECT Agent_id, Agent_name, Costs FROM Agents WHERE ROWNUM <=10 ORDER BY Costs DESC;



2. List Agent ID and Agent Name with Contract start date after 01/01/2016

SELECT Agent_id, Agent_name, Agent_Contract_Start FROM Agents WHERE CAST(Agent_Contract_Start as DATE) >= '01-JAN-16';



3. List Talents having Media type as Newspaper Ad

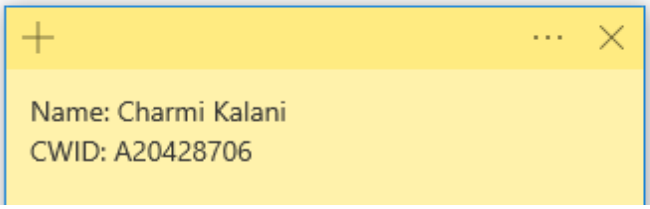
SELECT Talent.Talent_fname, Talent.Talent_Lname, Talent.MCAT_ID, Media_Categories.Media_Type
FROM Talent JOIN Media_Categories
ON Talent.MCAT_ID = Media_Categories.MCAT_ID
WHERE Talent.MCAT_Id = 4;

```
--Query 3--
--List Talents having Media type as Newspaper Ad --
SELECT Talent.Talent_fname, Talent.Talent_Lname, Talent.MCAT_ID, Media_Categories.Media_Type
FROM Talent JOIN Media_Categories
ON Talent.MCAT_ID = Media_Categories.MCAT_ID
WHERE Talent.MCAT_Id = 4;
```

Script Output | Query Result

SQL | All Rows Fetched: 3 in 0.054 seconds

	TALENT_FNAME	TALENT_LNAME	MCAT_ID	MEDIA_TYPE
1	Hermoine	Granger	4	Newspaper Ad
2	Monica	Geller	4	Newspaper Ad
3	Rachel	Green	4	Newspaper Ad



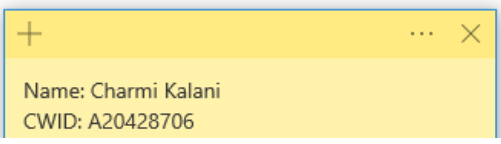
4. List all contracts that are with agent id 405.
   SELECT Agents.Agent_id,Agents.Agent_name, Contracts.CONTRACT_ID
   FROM Contracts JOIN Agents
   ON Agents.Agent_id = Contracts.Agent_id
   WHERE Agents.Agent_id = 405;

```
--Query 4--
--List all contracts that are with agent id 405--
SELECT Agents.Agent_id,Agents.Agent_name, Contracts.CONTRACT_ID
FROM Contracts JOIN Agents
ON Agents.Agent_id = Contracts.Agent_id
WHERE Agents.Agent_id = 405;
--Query 5--
```

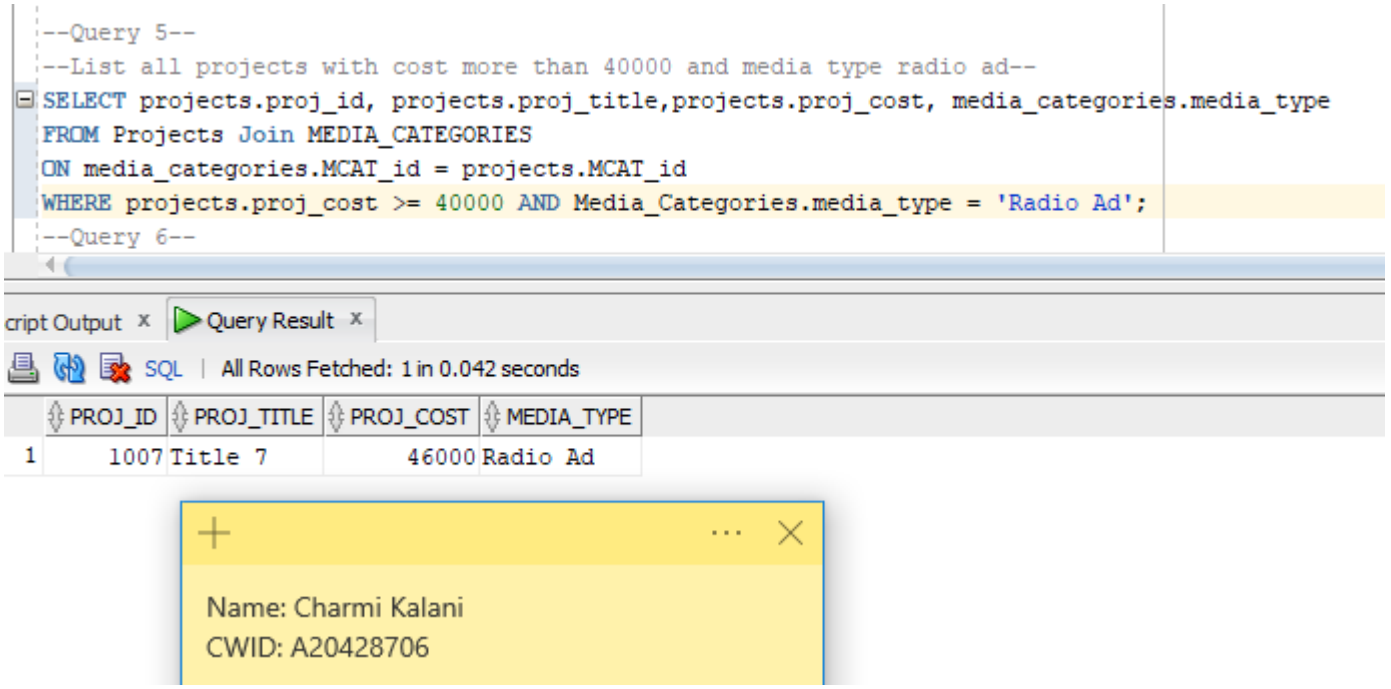
Script Output | Query Result

SQL | All Rows Fetched: 2 in 0.006 seconds

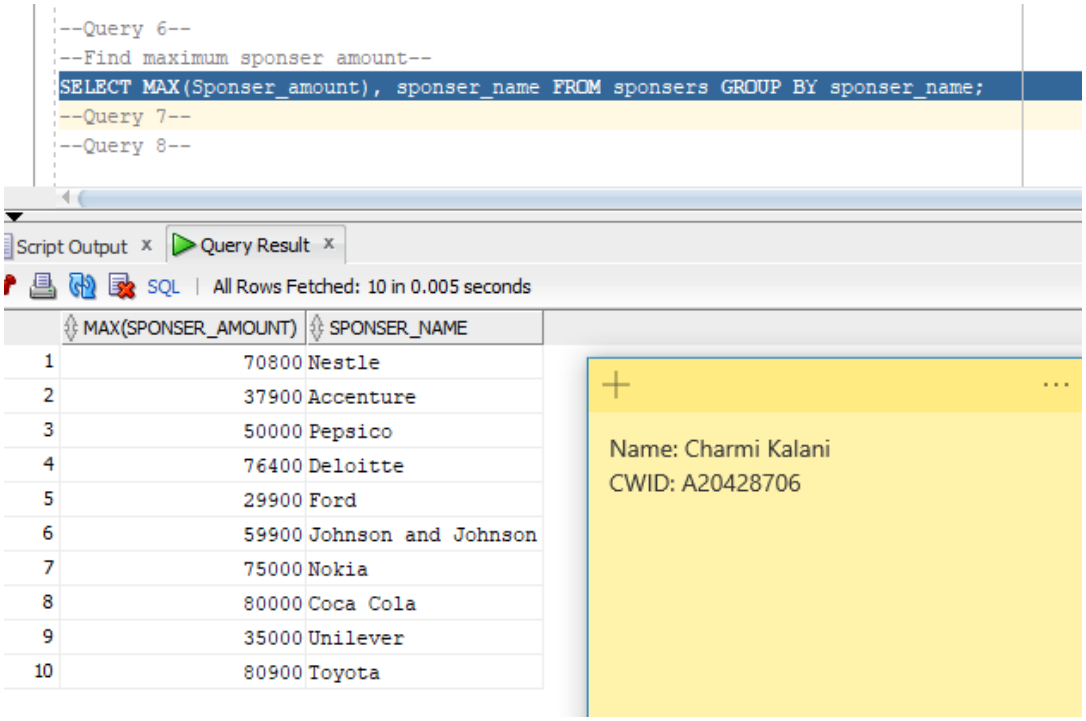
	AGENT_ID	AGENT_NAME	CONTRACT_ID
1	405	HM Group	1006
2	405	HM Group	1007



5. List all projects with cost more than 40000 and media type radio ad.
   SELECT projects.proj_id, projects.proj_title,projects.proj_cost, media_categories.media_type
   FROM Projects Join MEDIA_CATEGORIES
   ON media_categories.MCAT_id = projects.MCAT_id
   WHERE projects.proj_cost >= 40000 AND Media_Categories.media_type = 'Radio Ad';



6. Find maximum sponser amount.
   SELECT MAX(Sponser_amount), sponser_name FROM sponsers GROUP BY sponser_name;



7. Full outer joins for Agents and Clients

SELECT * FROM Agents FULL OUTER JOIN Contracts ON Agents.agent_id= Contracts.Agent_id;

```
--Query 7--
-- Full outer joins for Agents and Clients--
SELECT * FROM Agents FULL OUTER JOIN Contracts ON Agents.agent_id = Contracts.Agent_id;
--Query 8--
```

Script Output | Query Result

SQL | All Rows Fetched: 12 in 0.012 seconds

	AGENT_ID	AGENT_NAME	COSTS	AGENT_CONTRACT_START	AGENT_CONTRACT_END	CONTRACT_ID	CONTRACT_START	CONTRACT_END	AGENT_ID_1
1	403	RT Group	85000	26-JUN-17	26-JUN-18	1000	14-FEB-17	14-FEB-18	403
2	407	TLK Group	77000	07-NOV-14	07-NOV-15	1001	10-MAR-18	10-MAR-19	407
3	404	GT Group	47000	23-MAY-18	23-MAY-19	1002	25-APR-15	25-APR-18	404
4	409	PWW Group	46000	14-FEB-17	14-FEB-18	1003	10-FEB-16	10-FEB-18	409
5	401	ABB Group	80000	07-OCT-16	07-OCT-17	1004	14-MAY-16	14-MAY-17	401
6	400	WPP Group	90000	20-MAR-18	20-MAR-19	1005	28-FEB-16	28-FEB-18	400
7	405	HM Group	89000	12-OCT-15	12-OCT-16	1006	28-SEP-14	28-SEP-17	405
8	405	HM Group	89000	12-OCT-15	12-OCT-16	1007	21-DEC-15	21-DEC-17	405
9	403	RT Group	85000	26-JUN-17	26-JUN-18	1008	26-NOV-16	26-NOV-18	403
10	402	CN Group	55000	15-MAY-15	15-MAY-16	1009	10-JUL-15	10-JUL-17	402
11	408	OLL Group	99000	17-JAN-17	17-JAN-18	(null)	(null)	(null)	(null)
12	406	FL Group	67000	11-MAY-15	11-MAY-16	(null)	(null)	(null)	(null)

Name: Charmi Kalani
CWID: A20428706

n 69 | Insert

8. Find Average cost of all projects.

SELECT AVG(proj_cost) FROM Projects;

```
--Query 8--
--Find Average cost of all projects--
SELECT AVG(proj_cost) FROM Projects;
--Query 9--

--Query 10--
```

ript Output | Query Result

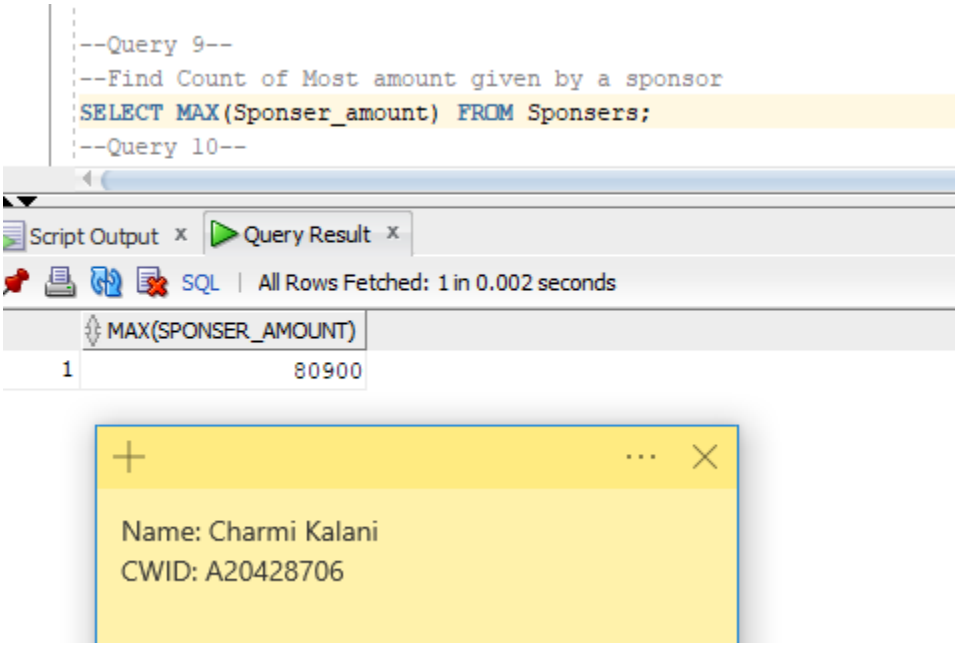
SQL | All Rows Fetched: 1 in 0.009 seconds

	AVG(PROJ_COST)
1	48900

Name: Charmi Kalani
CWID: A20428706

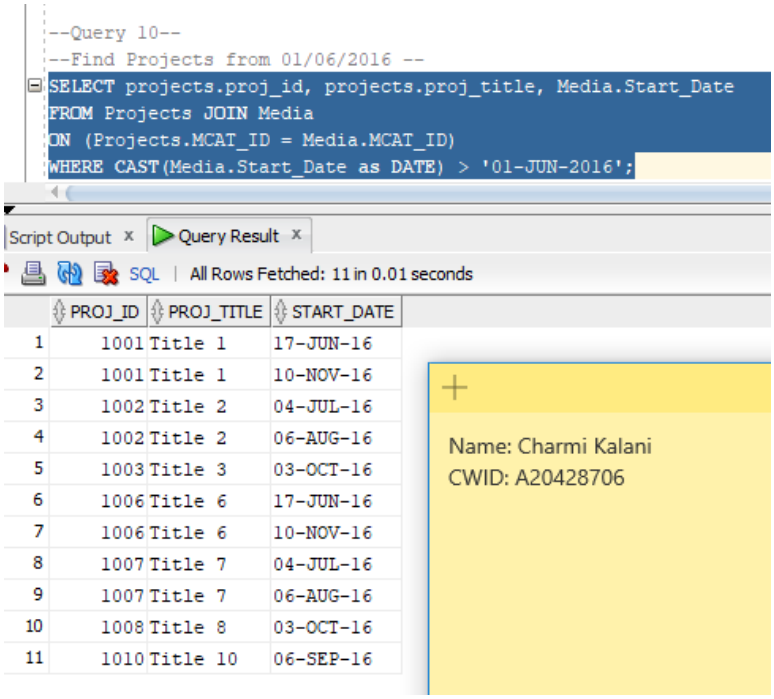
9. Find Most amount given by a sponsor

SELECT MAX(Sponser_amount) FROM Sponsers;



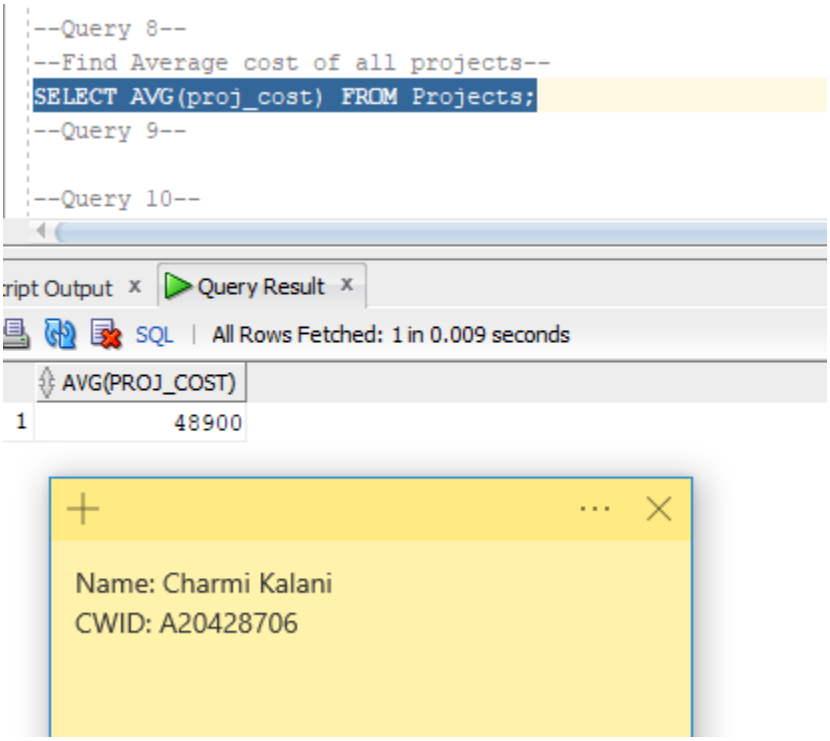
10. Find Projects from 01/06/2016.

SELECT projects.proj_id, projects.proj_title, Media.Start_Date
FROM Projects JOIN Media
ON (Projects.MCAT_ID = Media.MCAT_ID)
WHERE CAST(Media.Start_Date as DATE) > '01-JUN-2016';

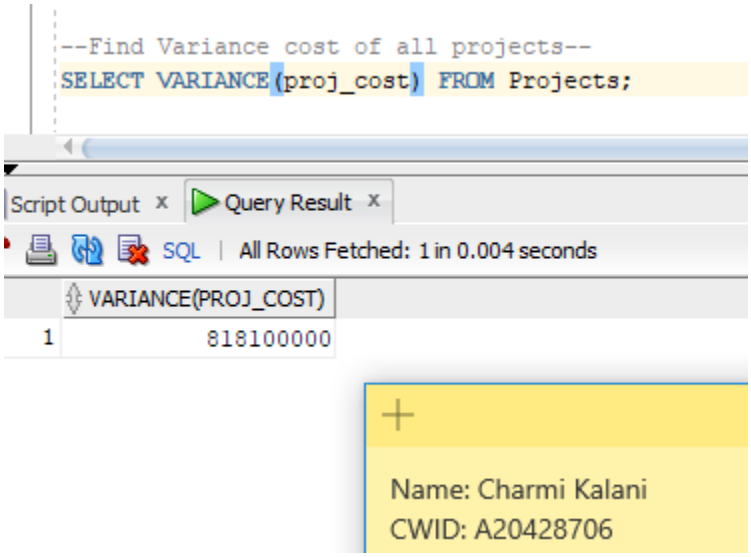


[Phase IX]

Average: Find Average cost of all projects.



Variance: Variance of the Project cost



Standard Deviation: Standard Deviation of the Project Cost

```
--Standard Deviation--
SELECT STDDEV(proj_cost) FROM Projects;
```

ript Output | Query Result

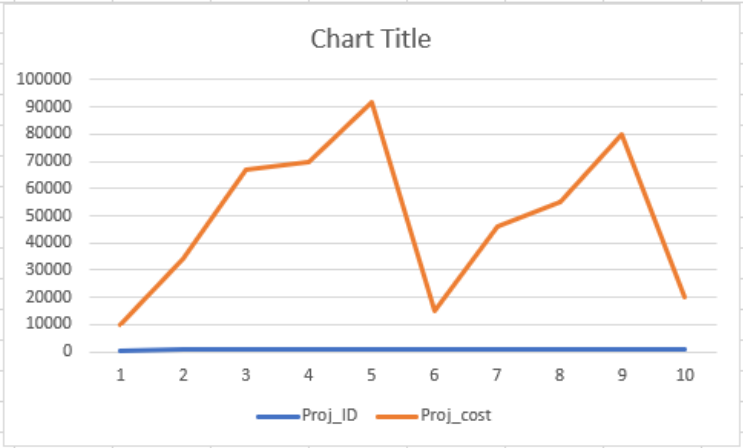
SQL | All Rows Fetched: 1 in 0.003 seconds

	STDDEV(PROJ_COST)
1	28602.447447727266124123841030419320498 3

Name: Charmi Kalani
CWID: A20428706

Line Chart between Proj_ID and Proj_Cost:

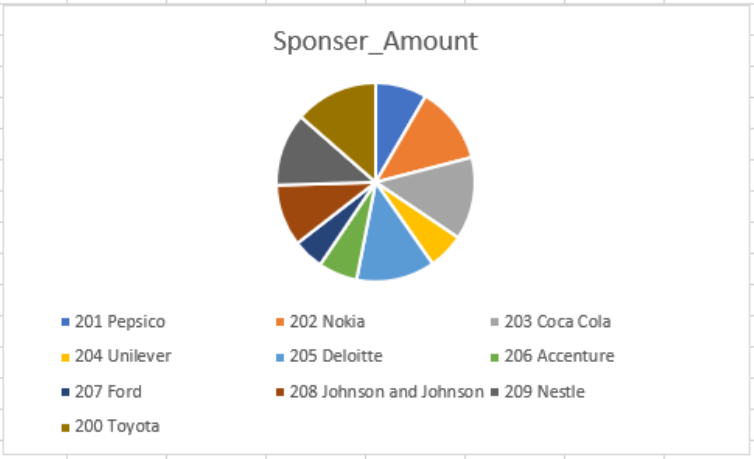
	Proj_ID	Proj_cost
1	1001	10000
2	1002	34000
3	1003	67000
4	1004	70000
5	1005	92000
6	1006	15000
7	1007	46000
8	1008	55000
9	1009	80000
10	1010	20000



Name: Charmi Kalani
CWID: A20428706

Pie Chart for Sponsor_Name and Sponsor_Amount

Sponser_ID	Sponser_Name	Sponser_Amount
201	Pepsico	50000
202	Nokia	75000
203	Coca Cola	80000
204	Unilever	35000
205	Deloitte	76400
206	Accenture	37900
207	Ford	29900
208	Johnson and Johnson	59900
209	Nestle	70800
200	Toyota	80900



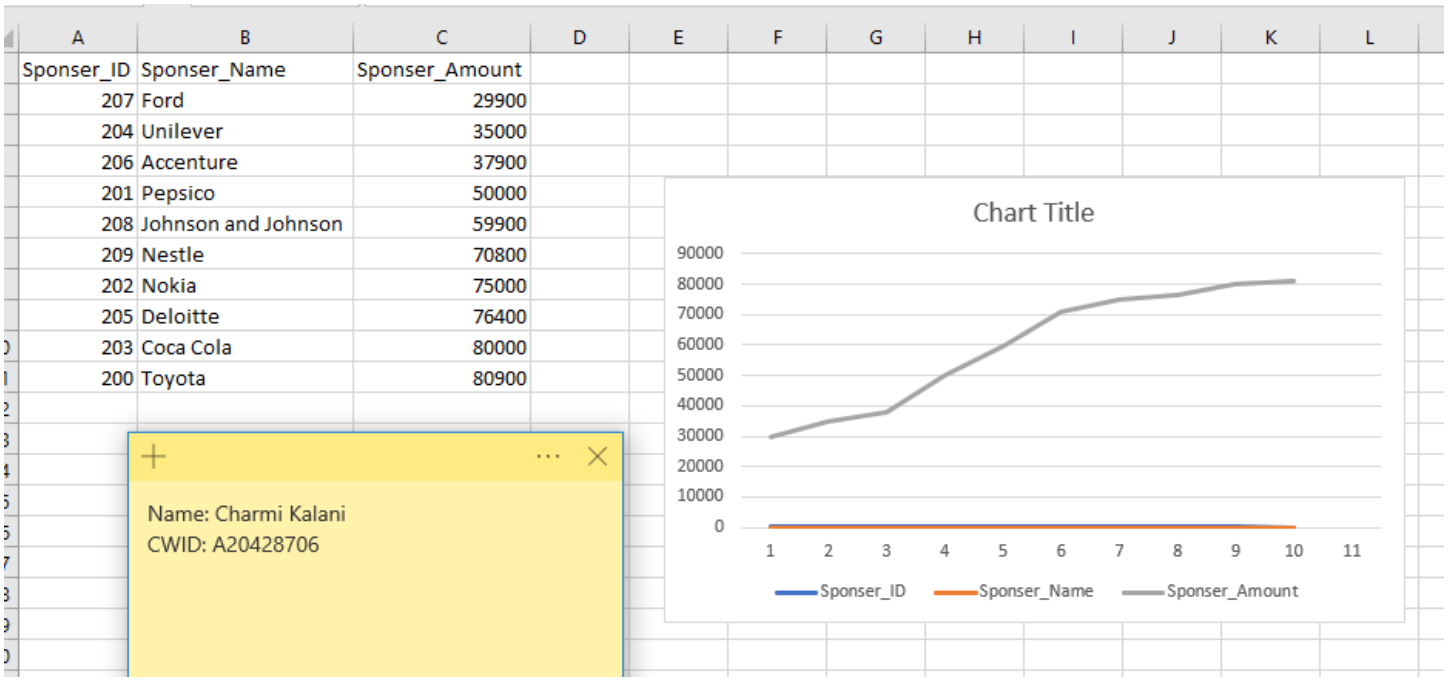
Name: Charmi Kalani
CWID: A20428706

Relationship between Agent and Costs.

Agent_ID	Agent_Name	Costs
400	WPP Group	90000
401	ABB Group	80000
402	CN Group	55000
403	RT Group	85000
404	GT Group	47000
405	HM Group	89000
406	FL Group	67000
407	TLK Group	77000
408	OLL Group	99000
409	PWW Group	46000

Name: Charmi Kalani
CWID: A20428706

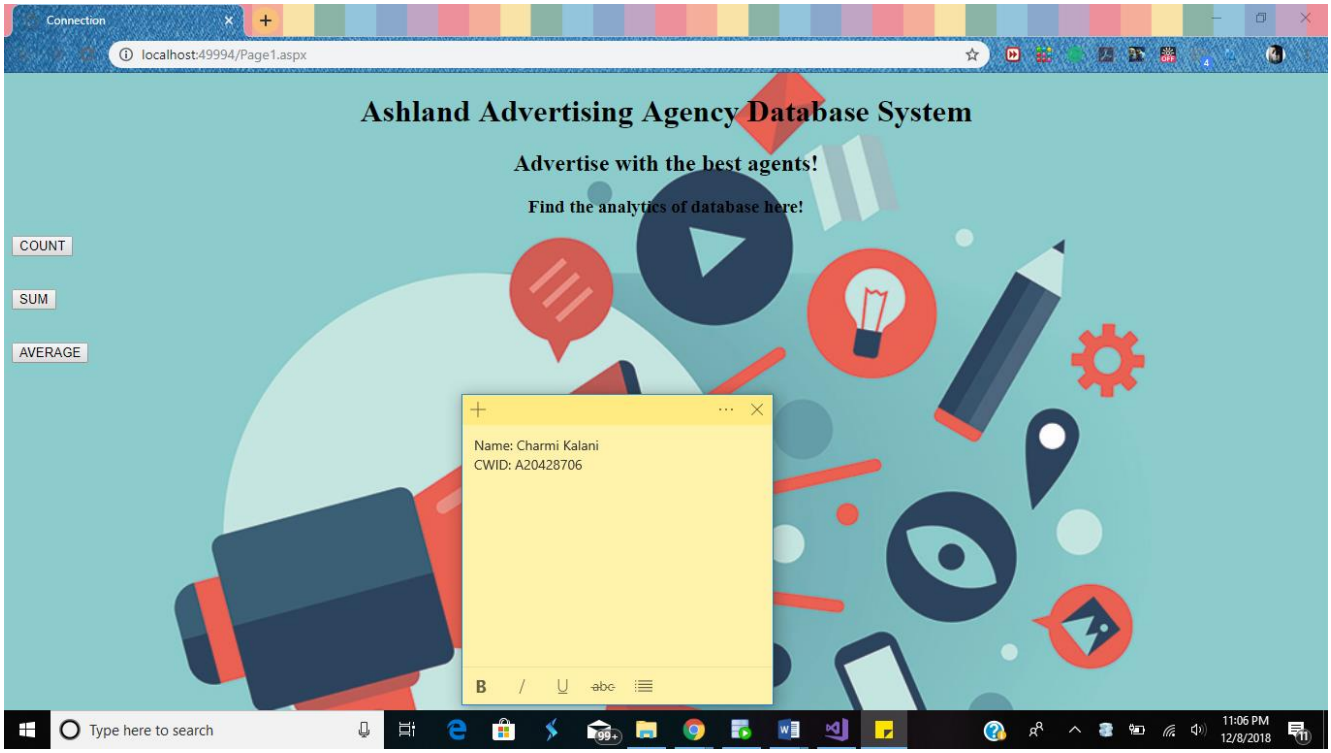
Linear Regression:



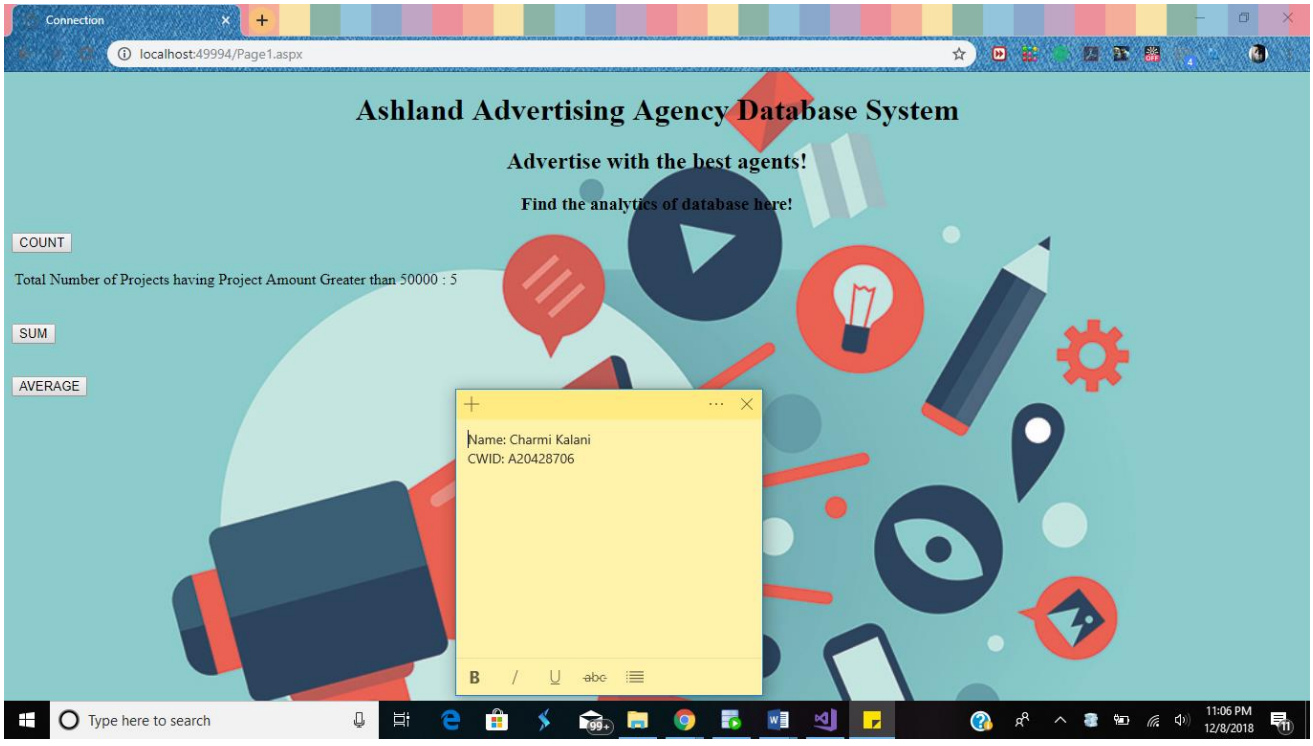
Sponser_ID	Sponser_Name	Sponser_Amount
207	Ford	29900
204	Unilever	35000
206	Accenture	37900
201	Pepsico	50000
208	Johnson and Johnson	59900
209	Nestle	70800
202	Nokia	75000
205	Deloitte	76400
203	Coca Cola	80000
200	Toyota	80900

Web Interface:

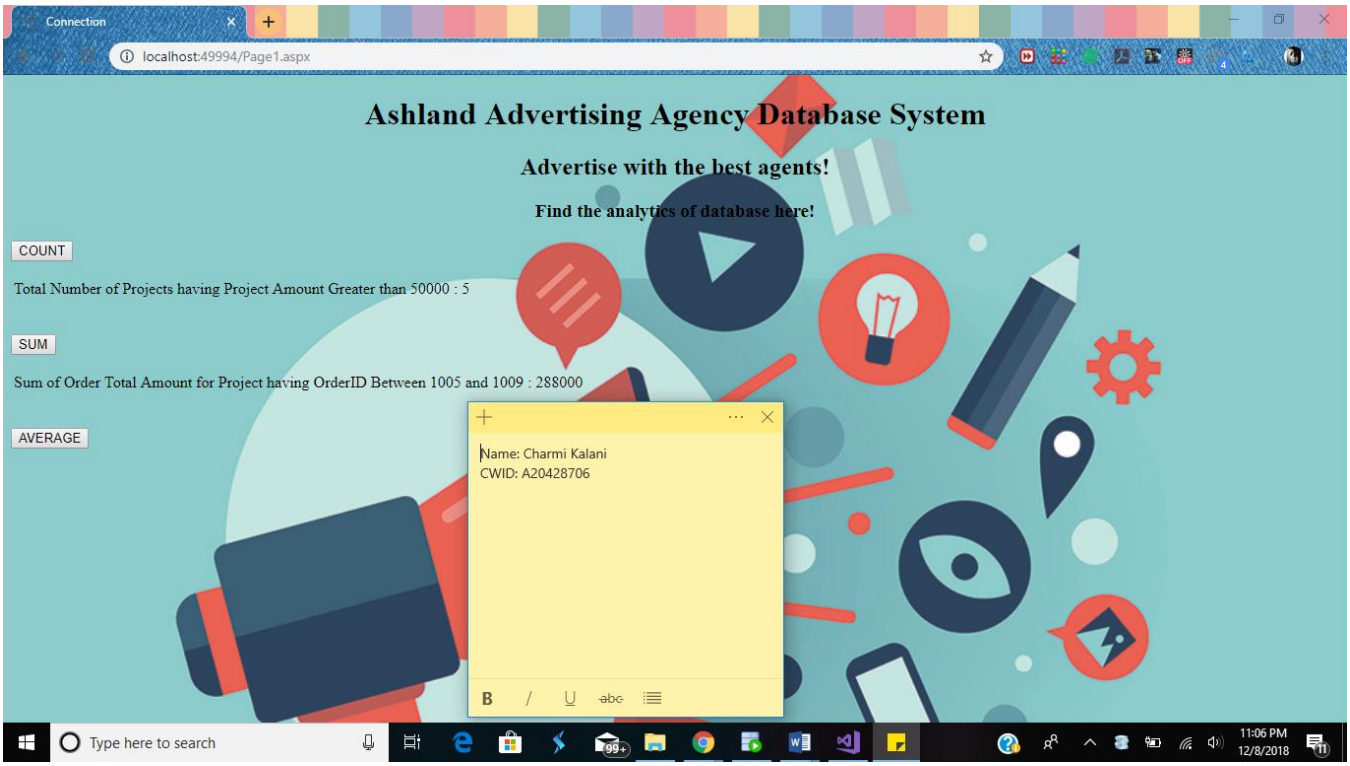
The web interface for Ashland Advertise Database System:



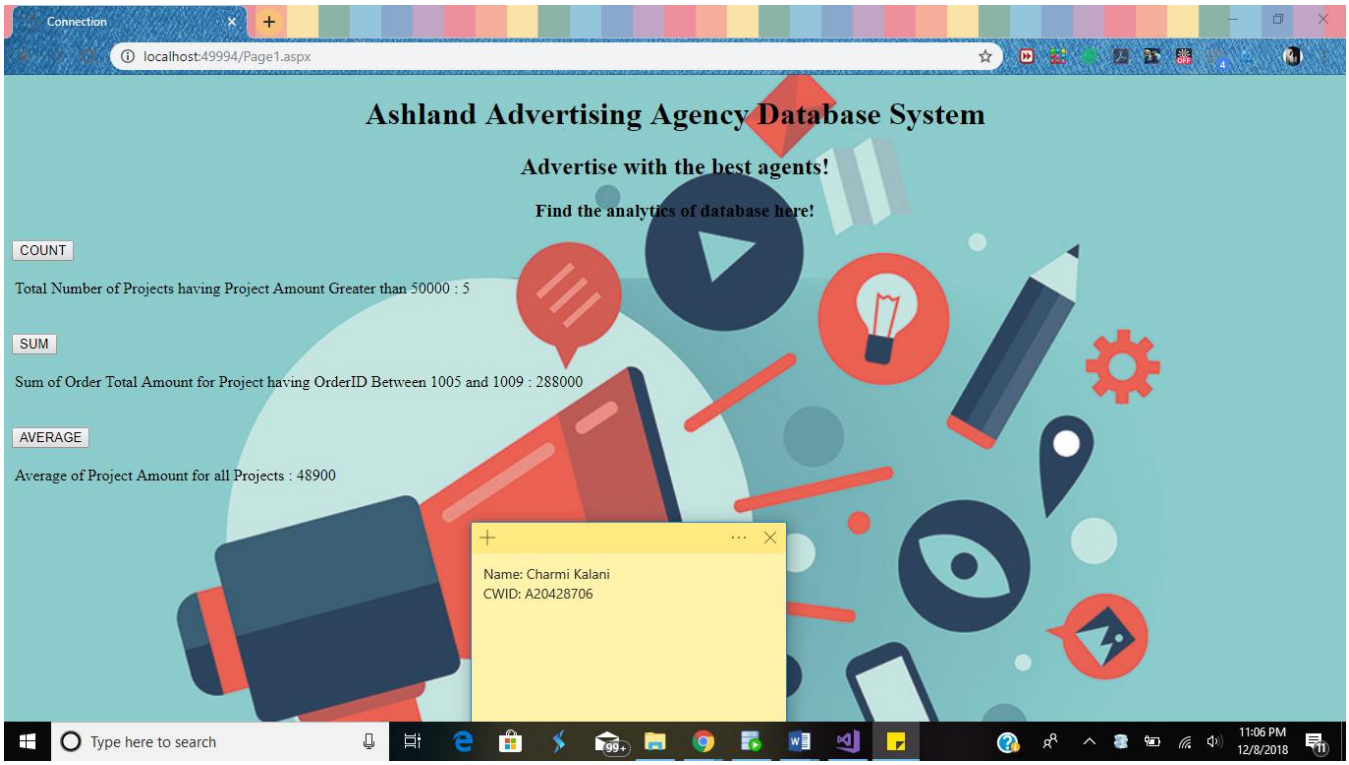
Web Interface for Count:



Web Interface for Sum:



Web Interface for Average:



[Phase X]

- The term Data Management itself indicates dealing with the information and appropriate execution of it by utilizing legitimate investigative apparatuses and methods. The System stream I have utilized in my proposed structured framework deals with exercises like Data Lifecycle and stream can be overseen effortlessly that would do the trick the organization's and additionally the client needs and request.
- In my proposed arrangement of Advertising Company depends on the way that there is legitimate verification process and approval framework before any Company individual needs to see the Analytical data that can be accomplished appropriately as each table which is utilized whether its Clients, Projects, Agents or Media table every one of them having been particularly distinguished so there won't be any framework mix issues. We have dealt with System secrecy since security is a vital component and we must see that there is no break of client information and we can't lose them.
- The proposed System which I have structured has dealt with Normalization however much as could reasonably be expected to see that there is no information excess and information irregularity. The principle reason for this plan is to have an effective stream of information, no information inconsistencies like Insert, Update and Delete. I have attempted to utilize upgraded questions as would be prudent so that there is no necessity of in excess of 2 joins to get the required yield. On the off chance that we require in excess of 2 joins to get an outcome, it is hard to recover data from those tables and dimension of multifaceted nature additionally increments.
- We can add additional fields for the future enhancement if the Company wants that it needs to be more optimized and simpler for use.
- The constraints have been properly defined for each of the table and taken care so that there is no issue for Database robust and compactness.
- The data which is present in the Database has valid data regarding Sponsors, Magazines, Agents so that we can understand what all projects are for which client, which all sponsors are sponsoring which project, which project has maximum number of.
- As all the above analytics listed can be performed smoothly and we can get idea regarding the latest trends regarding the Advertising Media and this would help the company to understand their shortcomings and improve the performance accordingly to increase their Advertising. The primary requirement of any client is cost because if any database which involves more level Business complexities and it requires most cost for further designing. The proposed system will take care that there is no more requirement for additional subqueries and Joins as that degrades the Database performance and requires tuning. I have taken care that any admin or company person cannot update wrong information and it would violate the constraints.
- Business Intelligence and Analytical tools can be used for getting optimizing results from the designed Database. The above points have been taken into consideration while designing the Database and have been tried to implement it.
- Data Mining will help in storing large volume of Data to discover pattern of the data which uses mathematical algorithms to evaluate the outcomes from the Database. This will help the following application to take appropriate actions like we have Agents where we can analyze which Agent has most projects.
- Predictive Analytics is the latest topic which is in boom today in the Business market where predictions are based on the current data by the Analyst and accordingly the Data correction and modulation techniques are applied to improve the system performance.