



# DIMENSIONAL MODEL FOR TPT

BDW : Assignment #2  
Instructor : Kashif Saeed

Aseem Mittal  
axm179730@utdallas.edu

### Assumptions:

- A. When a user signs up, he/she can be a buyer, a seller or both and have shown using buyer\_flag and seller\_flag in the buyer and seller dimensions.
- B. Dim\_Seller\_AseemM and Dim\_Buyer\_Alias\_AseemM tables are **Alias tables**.
- C. Dim\_TrxnDate\_AseemM and Dim\_ReviewDate\_AseemM tables are **Alias tables**.
- D. Dim\_Buyer\_Alias\_AseemM, Dim\_Seller\_AseemM, Dim\_Product\_AseemM are **Type 2 SCDs** (thus included Effective\_date and End\_date to capture history) **and Conformed dimensions**.
- E. The Fact\_Transaction\_AseemM is a fact table with **grain of** per buyer, per seller, per product, per date.
- F. The Fact\_Reviews\_AseemM is a fact table with **grain of** per buyer, per product of a seller, per date.
- G. Fact\_Reviews\_AseemM table has attribute- “Star\_Ratings” which can have values only from 1 to 5.
- H. To avoid Outer Joins problem, I have included **Null Handling row** in each dimension.
- I. **Pivoting** : Grade Level, Subject Area and Resource Type  
This is because the website restricts maximum 3 resource type, 4 grade levels and 3 subject area. Thus, I have included these total 10 columns are pivoted in the Product dimension.

## Bus Architecture:

Fact	DataMart	Dimensions				
		Dim_Seller_AseemM	Dim_Buyer_Alias_AseemM	Dim_Product_AseemM	Dim_TrxnDate_AseemM	Dim_ReviewDate_AseemM
	Fact_Transaction_AseemM	X	X	X	X	
	Fact_Reviews_AseemM	X	X	X		X

[illegible]





1 • select \* from TPT\_Dimenssional\_Modelling\_Aseem.Dim\_Seller\_AseemM;

2

3

100% 65:1

Result Grid

Filter Rows:

Q Search

Edit:

Export/Import:

Member...	UserNa...	Email_ID	First_Na...	Last_Na...	Phone_Nu...	Year_of_Bi...	Passw...	Teach_GradeR...	Paypal_Email	Interested_In	Street_Address	City	State	ZIP	Coun...
301	a	a1@gmail.c...	A	z	1011230011	1944	ABC	PreK-2	a2@gmail.c...	Engligh	H.No: 101 , 501...	AA	ABC	75000	USA
302	b	b1@gmail.c...	B	y	1021240022	1906	BCD	Not a Teacher	b2@gmail.c...	Math	H.No: 102 , 502...	BB	BCD	75001	USA
303	c	c1@gmail.c...	C	x	1031250033	1907	CDE	Grades 3-5	c2@gmail.c...	Social Studies/ History	H.No: 103 , 503...	CC	CDE	75002	USA
304	d	d1@gmail.c...	D	w	1041260044	1908	DEF	Middle School	d2@gmail.c...	Science	H.No: 104 , 504...	DD	DEF	75003	USA
305	e	e1@gmail.c...	E	v	1051270055	1909	EFG	High School	e2@gmail.c...	Special Education	H.No: 105 , 505...	EE	EFG	75004	USA
306	f	f1@gmail.c...	F	u	1061280066	1910	FGH	Higher Education	f2@gmail.c...	Foreign Language	H.No: 106 , 506...	FF	FGH	75005	USA
307	g	g1@gmail.c...	G	t	1071290077	1911	GHI	Adult Education	g2@gmail.c...	Art/ Drama/Music	H.No: 107 , 507...	GG	GHI	75006	USA
308	h	h1@gmail.c...	H	s	1081300088	1912	HIJ	Homeschooler	h2@gmail.c...	PE/ Health	H.No: 108 , 508...	HH	HIJ	75007	USA
309	i	i1@gmail.com	I	r	1091310099	1913	IJK	PreK-3	i2@gmail.com	Multiple Elementary Su...	H.No: 109 , 509...	II	IJK	75008	USA
310	j	j1@gmail.com	J	q	1101320110	1914	JKL	Not a Teacher	j2@gmail.com	Other	H.No: 110 , 510...	JJ	JKL	75009	USA
311	k	k1@gmail.c...	K	p	1111330121	1915	KLM	Grades 3-6	k2@gmail.c...	English	H.No: 111 , 511 R...	KK	KLM	75010	USA
312	l	l1@gmail.com	L	o	1121340132	1916	LMN	Middle School	l2@gmail.com	Math	H.No: 112 , 512...	LL	LMN	75011	USA
313	m	m1@gmail....	M	n	1131350143	1917	MNO	High School	m2@gmail....	Social Studies/ History	H.No: 113 , 513...	MM	MNO	75012	USA
314	n	n1@gmail.c...	N	m	1141360154	1918	NOP	Higher Education	n2@gmail.c...	Science	H.No: 114 , 514...	NN	NOP	75013	USA
315	o	o1@gmail.c...	O	l	1151370165	1919	OPQ	Adult Education	o2@gmail.c...	Special Education	H.No: 115 , 515...	OO	OPQ	75014	USA
316	p	p1@gmail.c...	P	k	1161380176	1920	PQR	Homeschooler	p2@gmail.c...	Foreign Language	H.No: 116 , 516...	PP	PQR	75015	USA
317	q	q1@gmail.c...	Q	j	1171390187	1921	QRS	PreK-4	q2@gmail.c...	Art/ Drama/Music	H.No: 117 , 517...	QQ	QRS	75016	USA
318	r	r1@gmail.c...	R	i	1181400198	1922	RST	Not a Teacher	r2@gmail.c...	PE/ Health	H.No: 118 , 518...	RR	RST	75017	USA
319	s	s1@gmail.c...	S	h	1191410209	1923	STU	Grades 3-7	s2@gmail.c...	Multiple Elementary Su...	H.No: 119 , 519...	SS	STU	75018	USA
320	t	t1@gmail.c...	T	g	1201420220	1924	TUV	Middle School	t2@gmail.c...	Other	H.No: 120 , 520...	TT	TUV	75019	USA
9999	Null11	Null1@null	Null1	Null1	9999	0	Null1	Null1	Null2@null	Null1	Null1	Null	Null	9999	Null1
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

1  
2  
3

select \* from TPT\_Dimenssional\_Modelling\_Aseem.Fact\_Reviews\_AseemM;

100%67:1

Result Grid

Filter Rows:

Search

Edit:

Export/Import:

Star_Rati...	Feedback	Date_K...	Seller_Membe...	Buyer_Membe...	Product_ID	
► 5	Very Good	200197	301	309	1001	
1	Poor	200198	302	310	1002	
2	Average	200199	303	311	1003	
4	Good	200200	304	312	1004	
3	Above Aver...	200201	305	313	1005	
5	Very Good	200202	306	314	1006	
3	Above Aver...	200203	307	315	1007	
1	Poor	200204	308	316	1008	
3	Above Aver...	200205	309	315	1009	
4	Good	200191	310	316	1010	
4	Good	200192	311	317	1011	
4	Good	200193	312	318	1012	
5	Very Good	200194	313	319	1013	
1	Poor	200195	314	320	1014	
5	Very Good	200196	315	301	1015	
3	Above Aver...	200197	316	302	1016	
2	Average	200198	317	303	1017	
2	Average	200199	318	304	1018	
5	Very Good	200200	319	305	1019	
1	Poor	200201	320	306	1020	
NULL	NULL	NULL	NULL	NULL	NULL	



```
1 • select * from TPT_Dimenssional_Modelling_Aseem.Fact_Transaction_AseemM;
```

```
select * from TPT_Dimenssional_Modelling_Aseem.Fact_Transaction_AseemM;
```

100% 

2:3

### Result Grid



Filter Rows:



Search

Edit:



Export/Import:

[illegible]

Dim_ReviewDate_Alias_AseemM
Date_Key INT
Date INT
Month VARCHAR(12)
Year YEAR
Day_of_Week VARCHAR(9)
Week_of_Month INT
Week_of_Year INT
Holiday TINYINT(1)
Indexes

Dim_Seller_AseemM
Member_ID INT
UserName VARCHAR(45)
Email_ID VARCHAR(45)
First_Name VARCHAR(45)
Last_Name VARCHAR(45)
Phone_Number INT
Year_of_Birth YEAR
Password VARCHAR(45)
Teach_GradeRange VARCHAR(45)
Paypal_Email VARCHAR(45)
Interested_In VARCHAR(45)
Street_Address VARCHAR(45)
City VARCHAR(45)
State VARCHAR(45)
ZIP VARCHAR(45)
Country VARCHAR(45)
Effective_date DATE
End_date DATE
Dwolla_Account_ID VARCHAR(45)
Default_payment VARCHAR(45)
Buyer_Flag TINYINT(1)
Seller_Flag TINYINT(1)
Indexes

Dim_TrxnDate_AseemM
Date_Key INT
Date INT
Month VARCHAR(12)
Year YEAR
Day_of_Week VARCHAR(9)
Week_of_Month INT
Week_of_Year INT
Holiday TINYINT(1)
Indexes

Fact_Reviews_AseemM
Star_Ratings INT(1)
Feedback VARCHAR(225)
Date_Key INT
Seller_Member_ID INT
Buyer_Member_ID INT
Product_ID INT
Indexes

Fact_Transaction_AseemM
Order_ID INT
Mode_of_Payment VARCHAR(45)
CardNo./Account VARCHAR(45)
Quantity INT
Service_Charge FLOAT
Product_ID INT
Buyer_Member_ID INT
Seller_Member_ID INT
Date_Key INT
Indexes

Dim_Buyer_Alias_AseemM
Member_ID INT
UserName VARCHAR(45)
Email_ID VARCHAR(45)
First_Name VARCHAR(45)
Last_Name VARCHAR(45)
Phone_Number INT
Year_of_Birth YEAR
Password VARCHAR(45)
Teach_GradeRange VARCHAR(45)
Paypal_Email VARCHAR(45)
Interested_In VARCHAR(45)
Street_Address VARCHAR(45)
City VARCHAR(45)
State VARCHAR(45)
ZIP VARCHAR(45)
Country VARCHAR(45)
Effective_date DATE
End_date DATE
Dwolla_Account_ID VARCHAR(45)
Default_payment VARCHAR(45)
Buyer_Flag TINYINT(1)
Seller_Flag TINYINT(1)
Indexes

Dim_Product_AseemM
Product_ID INT
Title VARCHAR(45)
Description VARCHAR(225)
FileType VARCHAR(45)
Ans_Key VARCHAR(45)
No._of_pages INT
Free/Paid VARCHAR(4)
Price FLOAT
Multiple_Licence_Price FLOAT
Active BINARY(1)
Bundle_Discount_Price FLOAT
Teaching_Duration VARCHAR(45)
Thumbnails VARCHAR(45)
SubjectArea_1 VARCHAR(45)
SubjectArea_2 VARCHAR(45)
SubjectArea_3 VARCHAR(45)
Grade_level_1 VARCHAR(45)
Grade_level_2 VARCHAR(45)
Grade_level_3 VARCHAR(45)
Grade_level_4 VARCHAR(45)
Resource_Type_1 VARCHAR(45)
Resource_Type_2 VARCHAR(45)
Resource_Type_3 VARCHAR(45)
Effective_date DATE
End_date DATE
CopyRight_Flag VARCHAR(4)
Indexes

