DATABASE MANAGEMENT SYSTEMS 3 ASSIGNMENT 1 – 30 Marks

INSTRUCTIONS

You may work in groups of 3. Please discuss the problem amongst the three of you and draft your answers on WORD formatted page. Attach the Excel Spreadsheet that will show the output when I run your spreadsheet. Please add snapshots of the output required in your document as well as the xls file must be attached. Follow Instructions.

1. Victoria Ephanor manages a small product distribution company. Because the business is growing fast, Ephanor recognizes that it is time to manage the vast information pool to help guide the accelerating growth. Ephanor, who is familiar with spreadsheet software, currently employs a sales force of four people. She asks you to develop a data warehouse application prototype that will enable her to study sales figures by year, region, salesperson, and product. (This prototype is to be used as the basis for a future data warehouse database.)

   Using the data supplied in the Ch13_P2.xls file, complete the following seven problems:

   a. Identify the appropriate fact table components. (5)

   b. Identify the appropriate dimension tables. (5)

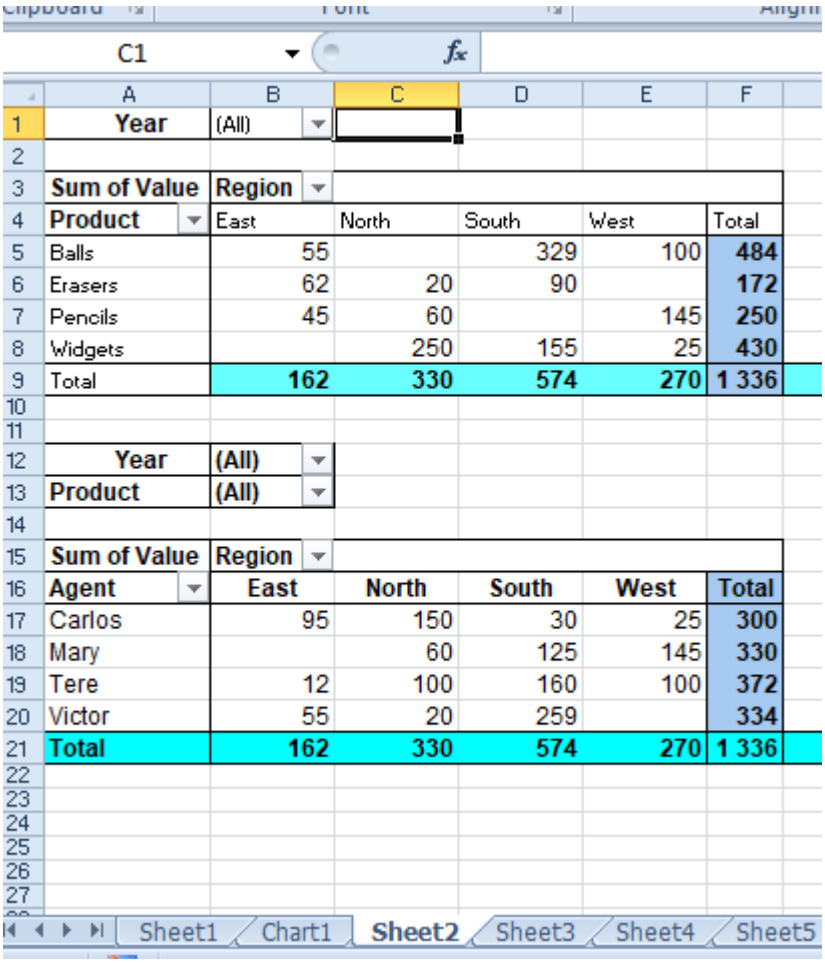
   c. Draw a star schema diagram for this data warehouse. (5)

   d. Identify the attributes for the dimension tables that will be required to solve this problem. (5)

   e. Using the spreadsheet generate a pivot table to show **Sales by Product** and by **Region**. The end user must be able to **specify** the **display of Sales** for any given **Year**. The sample oputput is shown below in Figure 1.

   f. Use problem (e) as your point of departure and add a second pivot table as in Figure 1 (on same spreadsheet) to show Sales by **SalesPerson** and by **Region** as in Figure 1 but the lower part. The end user must be able to **specify Sales** for a given **Year** or for ALL Years, **and** for a given **Product** or for ALL Products. (5)

   g. Create a 3D Bar Graph as part of your spreadsheet but give it a name CHART as in Figure 2 below. Your spreadsheet must therefore have at least three tabs. One for the raw data as given, one for the pivot tables and one for the CHART. The CHART must display as in Figure 2, the Sales for Salespeople within different Regions for each Product. (5)



	A	B	C	D	E	F
1	**Year**	(All)				
2						
3	**Sum of Value**	**Region**				
4	**Product**	East	North	South	West	Total
5	Balls	55		329	100	**484**
6	Erasers	62	20	90		**172**
7	Pencils	45	60		145	**250**
8	Widgets		250	155	25	**430**
9	Total	**162**	**330**	**574**	**270**	**1 336**
10						
11						
12	**Year**	**(All)**				
13	**Product**	**(All)**				
14						
15	**Sum of Value**	**Region**				
16	**Agent**	**East**	**North**	**South**	**West**	**Total**
17	Carlos	95	150	30	25	**300**
18	Mary		60	125	145	**330**
19	Tere	12	100	160	100	**372**
20	Victor	55	20	259		**334**
21	**Total**	**162**	**330**	**574**	**270**	**1 336**
22						
23						
24						
25						
26						
27						

Sheet1 Chart1 **Sheet2** Sheet3 Sheet4 Sheet5

Figure 1: Pivot Tables showing Sales by Year AND Sales for Year and Product

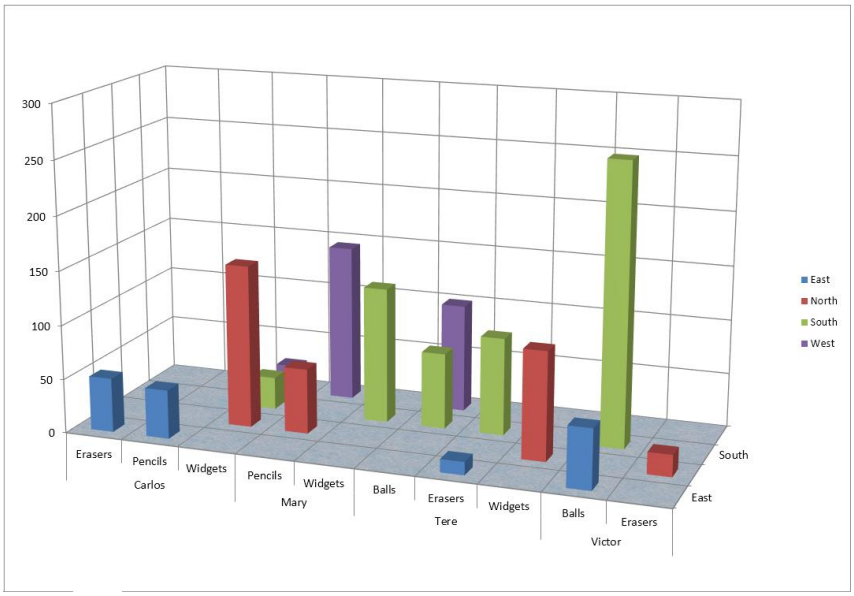


Figure 2: 3D- Bar Graph that shows Sales per Region for SalesPeople and Products