

TIS1101 Database Fundamentals

Lab 10 (e-learning mode)

Part A

- i. List down the phases in the DBLC and briefly discuss the activities for each phase.
- ii. List down the steps required in the development of an ER diagram.
- iii. What are the differences between data warehouse and data mart?

**Note: Submit Q1 to Q3 to your respective tutor*

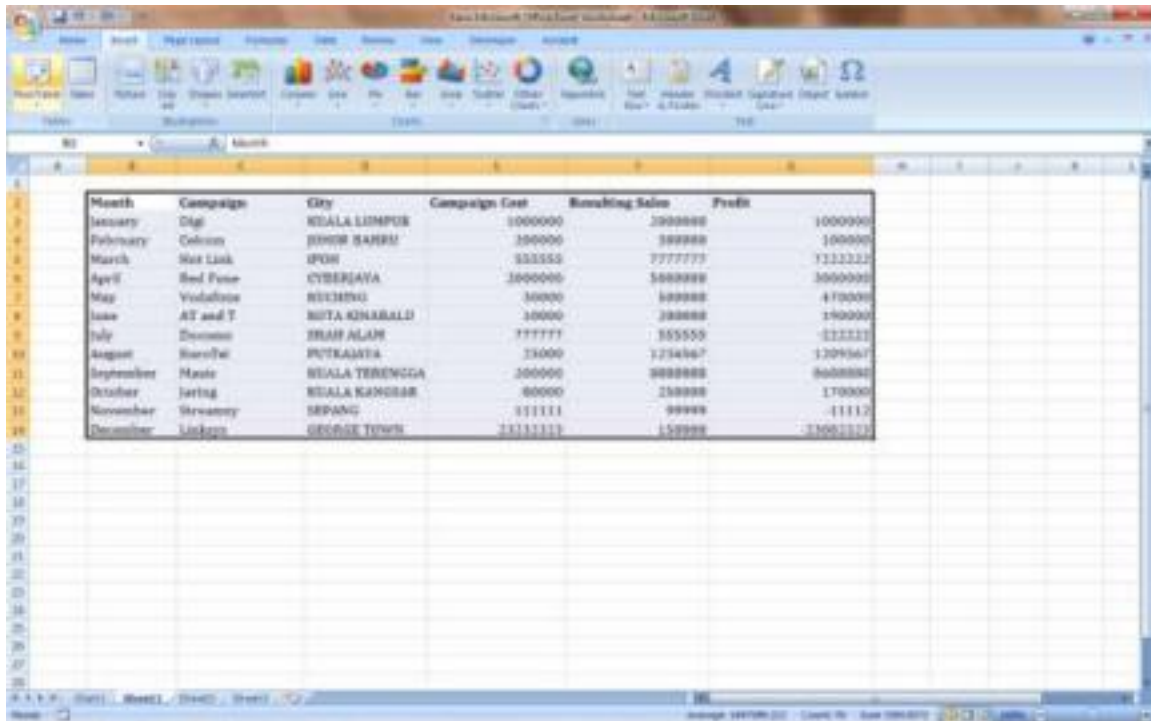
Part B: Practical (self-learning)

We are going to use Pivot table to create multidimensional views of data. A pivot table is a data analysis tool used to create multidimensional data views by dragging and dropping column headings to move data around. Microsoft Excel has a pivot table tool.

1. Enter the following data into Excel.

Month	Campaign	City	Cost	Sales	Profit
January	Digi	KUALA LUMPUR	1000000	2000000	1000000
February	Celcom	JOHOR BAHRU	200000	300000	100000
March	Hot Link	IPOH	555555	7777777	7222222
April	Red Fone	CYBERJAYA	2000000	5000000	3000000
May	Vodafone	KUCHING	30000	500000	470000
June	AT and T	KOTA KINABALU	10000	200000	190000
July	Docomo	SHAH ALAM	777777	555555	-222222
August	EuroTel	PUTRAJAYA	25000	1234567	1209567
September	Maxis	KUALA TERENGGANU	200000	8888888	8688888
October	Jaring	KUALA KANGSAR	80000	250000	170000
November	Streamxy	SEPANG	111111	99999	-11112
December	Linksys	GEORGE TOWN	23232323	150000	-23082323

2. Go to "Insert" tab and click at the "PivotTable". Select the option "PivotTable".



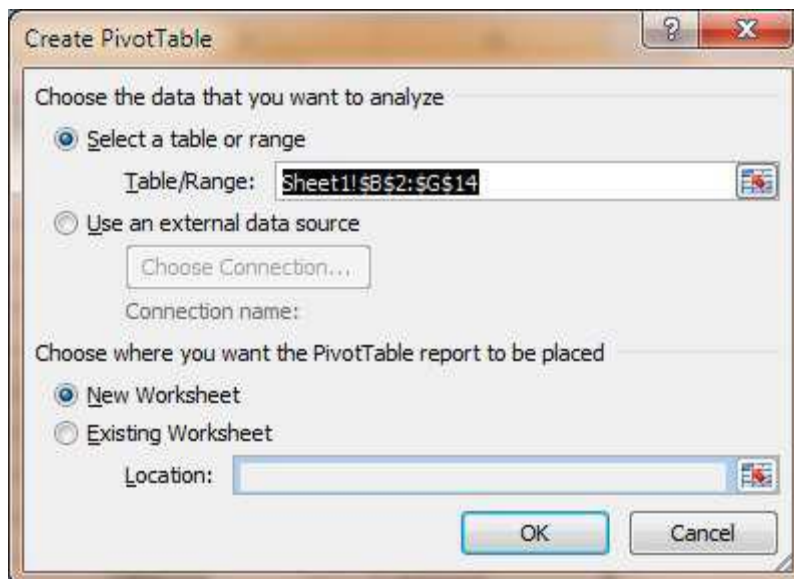
The screenshot shows an Excel worksheet with a data table and a PivotTable task pane. The data table is as follows:

Month	Campaign	City	Campaign Cost	Broadcasting Sales	Profit
January	Digi	KUALA LUMPUR	1000000	2000000	1000000
February	Celcom	JOHORE BAHRU	200000	300000	100000
March	Max Link	IPOH	500000	700000	200000
April	Red Fone	CYBERJAYA	3000000	5000000	2000000
May	Vodafone	KUCHING	30000	40000	10000
June	AT and T	KOTA KINABALU	10000	20000	10000
July	Escom	SHAH ALAM	700000	1000000	300000
August	SureTel	PUTRAJAYA	25000	125000	100000
September	Maxis	KUALA TERENGGANU	200000	300000	100000
October	Jaring	KUALA KANGSAR	80000	100000	20000
November	Streamyx	SEPAHANG	100000	100000	0
December	Linkas	GEORGE TOWN	2000000	3000000	1000000

The PivotTable task pane on the right shows the following settings:

- Table/Range: =Sheet1!\$B\$2:\$G\$14
- Columns in the report filter: Month
- Columns in the row labels: Campaign, City
- Columns in the data area: Campaign Cost, Broadcasting Sales, Profit

3. You should see the dialog box below. Click "OK" button.



The 'Create PivotTable' dialog box is shown with the following settings:

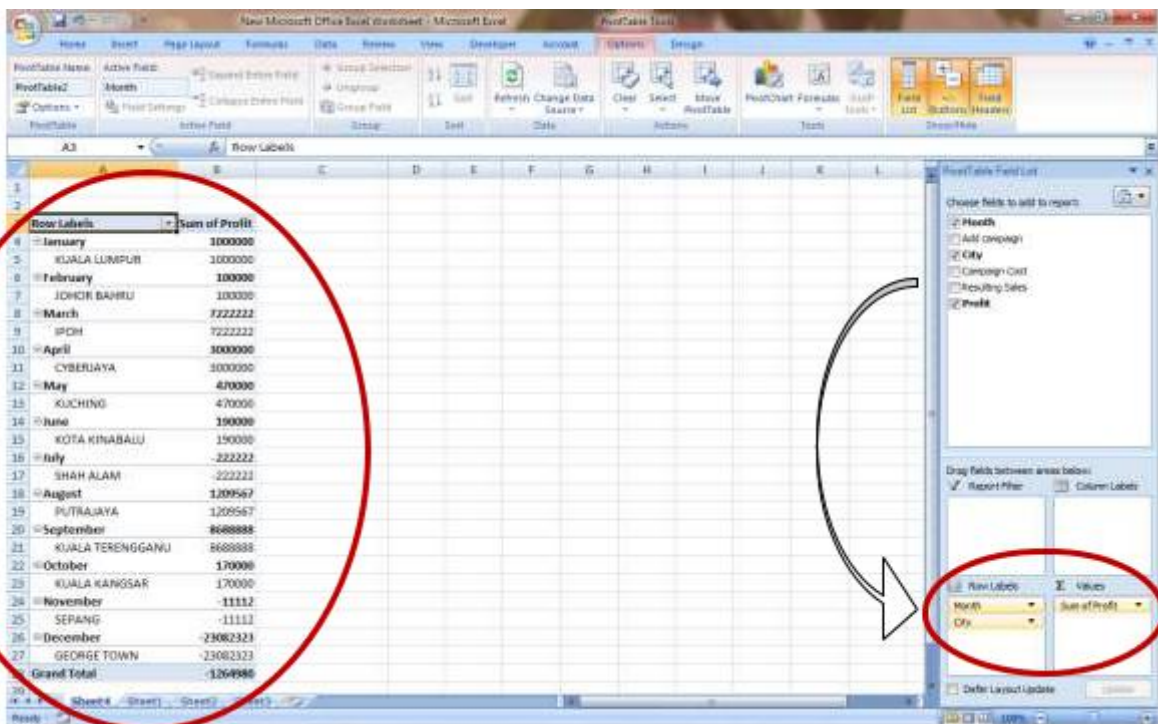
- Choose the data that you want to analyze**
 - ☒ Select a table or range
 - Table/Range: =Sheet1!\$B\$2:\$G\$14
 - ☐ Use an external data source
 - Choose Connection...
 - Connection name:
- Choose where you want the PivotTable report to be placed**
 - ☒ New Worksheet
 - ☐ Existing Worksheet
 - Location:

Buttons: OK, Cancel

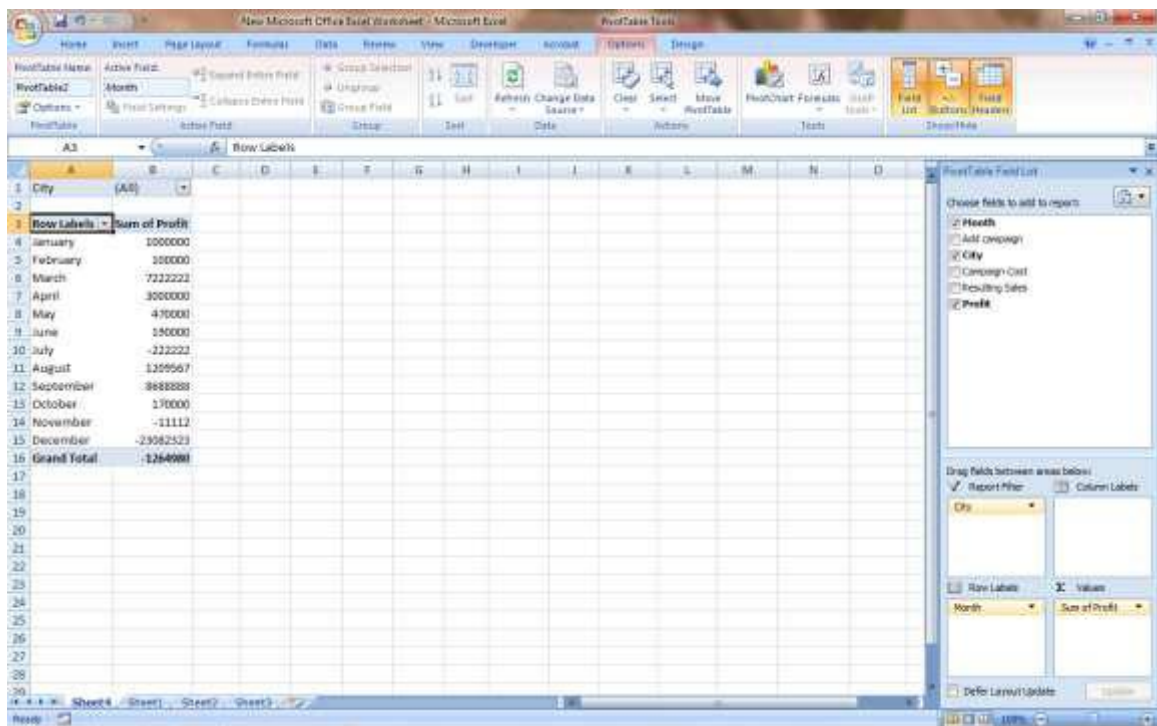
4. After clicking the “OK” button, you should see the figure below.



5. Drag “City” followed by “Month” to the “Row Labels” column. Identify the changes to the excel table on the left. See figures below:



7. Experiment with the different combinations to get the result below:



Try this out (self-learning)

1. How to get the follow result?

(i)

	A	B
1		
2	Month	(All) ▼
3		
4	Row Labels	Sum of Profit
5	CYBERJAYA	3000000
6	GEORGE TOWN	-23082323
7	IPOH	7222222
8	JOHOR BAHRU	100000
9	KOTA KINABALU	190000
10	KUALA KANGSAR	170000
11	KUALA LUMPUR	1000000
12	KUALA TERENGGANU	8688888
13	KUCHING	470000
14	PUTRAJAYA	1209567
15	SEPANG	-11112
16	SHAH ALAM	-222222
17	Grand Total	-1264980
18		

(ii)

	A	B	C	D
1				
2	Month	(All) ▼		
3				
4		Values		
5	Row Labels	Sum of Profit	Sum of Resulting Sales	
6	CYBERJAYA	3000000	5000000	
7	GEORGE TOWN	-23082323	150000	
8	IPOH	7222222	7777777	
9	JOHOR BAHRU	100000	300000	
10	KOTA KINABALU	190000	200000	
11	KUALA KANGSAR	170000	250000	
12	KUALA LUMPUR	1000000	2000000	
13	KUALA TERENGGANU	8688888	8888888	
14	KUCHING	470000	500000	
15	PUTRAJAYA	1209567	1234567	
16	SEPANG	-11112	99999	
17	SHAH ALAM	-222222	555555	
18	Grand Total	-1264980	26956786	
19				