

**DMW Exp 2**

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DMW - Experiment 2

Aim: Build data warehouse for a given problem statement:

- 1) Identify source tables & populate sample data.
- 2) Making info. package diagram.
- 3) Design dimensional data model i.e. Star schema, snowflake schema & fact constellation schema.

Theory: 1. In a data warehouse, information package is logical schema grouping of related data that is organised & presented in a specific format.

2. Here, data is organised into one or more data labels, & the package may also include supporting info. such as description of the data, list of data sources & glossary of items.

3. IP is often used to provide data to decision makers who need to analyze data to make business decisions.

4. For eg: datawarehouse may contain data about purchasing habits, product sales, inventory level, etc. They can make decisions about what products to stock, how to price product, how to promote them, etc.

5. We gain a better understanding of various insights, thoughts & opinions expressed during application process for collecting requirements by doing so.

Information Package Content: It contains Content Data Object (Physical or digital object), representational data object information required to explain content data object.

Submission Info. Package (SIP) : Data producers create SIP's from other SIPs . It is an archive deposit of digital data , as well as any documentation or metadata required to support the archive's long term preservation & to provide consumers with access to archive.

Star Schema : It is a db organizational structure optimized for data warehousing / business intelligence that uses single large transactional fact table to store transactional or measure data & one or more smaller dimension tables to store attributes about the data .

## ***Interview Questions:***

Q. Where does your data come from?

A. We get our data from CRM, Facebook, Google Analytics and BI software.

Q. How do you measure profit margin?

A. Our main formula for measuring the profit accumulated is Net income / revenue. Our profit margin deteriorated from the financial year 2019-2020 but increased from the financial year 2020-2021.

Q. Which product is your biggest source of revenue?

A. Our iPhones produce the biggest source of revenue.

Q. What are the business segments of Apple?

A. Countries like Japan, America, China etc. are our business segment nations. Currently the US is leading but Asia is catching up. America is contributing 46B dollars in the first quarter of 2021. 31% of Macbook users in the US are between ages 25-34. 53% of all MacBook users are from small towns. 1/10 people own an Apple Watch.

Q. Customer demographics of your company?

A. More than 1.6B active apple devices are currently in use across the world out of which 1B are iPhones. iOS users account for 26.99% of all mobile users. As of 2019, 51% of all iOS users were female and 43% were male. It's the only major mobile vendor with max female users.

Q. Which kind of analysis helps you the most in making strategic decisions?

A. Correlation analysis. It measures the strength of the linear relationship between two variables and computes their association. Simply put - correlation analysis calculates the level of change in one variable due to the change in the other. Q. Relation b/n customer satisfaction and product sales?

A. According to our research, we have seen that the more satisfied the customers are, better are the sales.

Q. How are apple services growing?

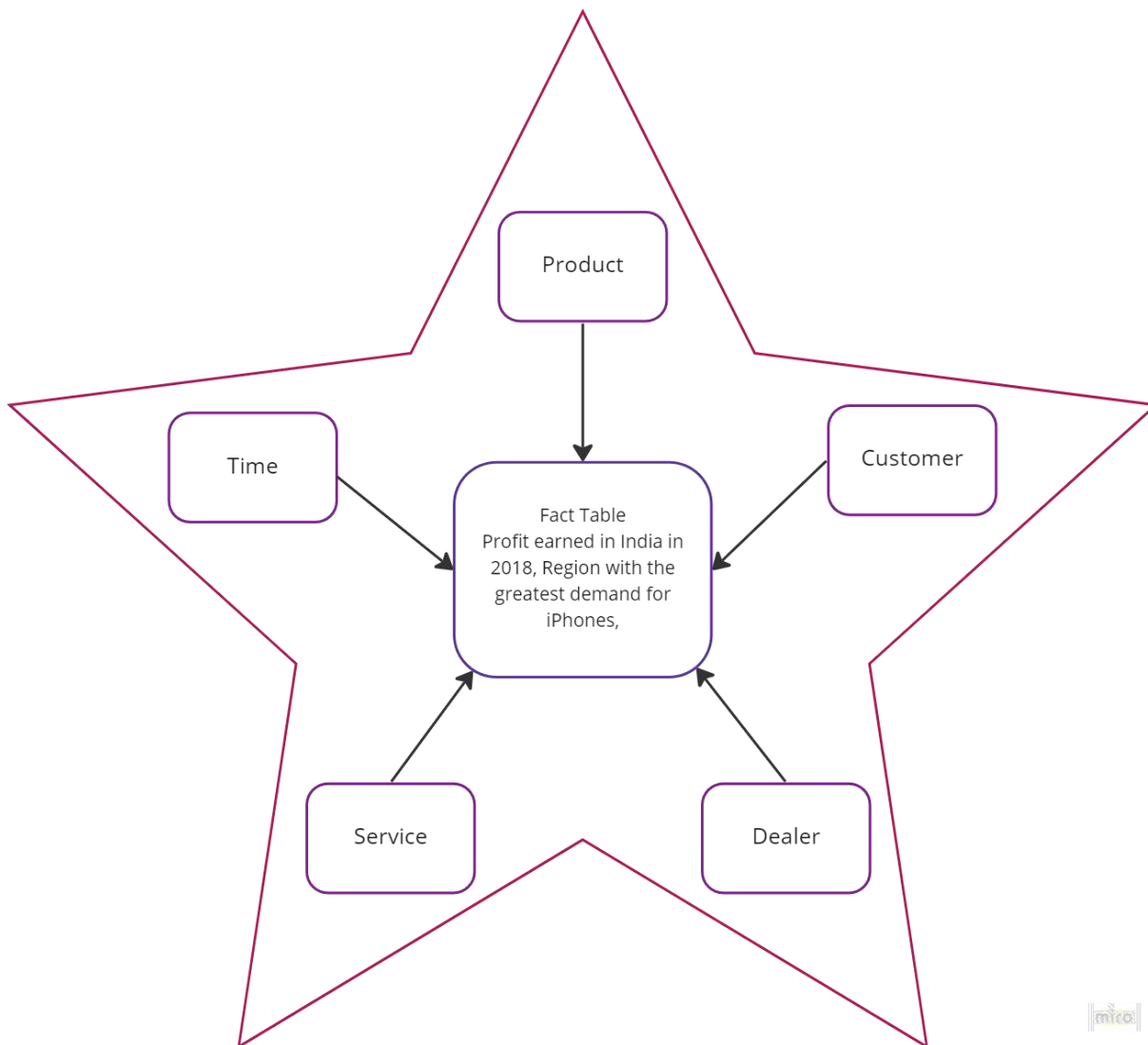
A.  
Apple Music had 98M users by 2021.

**IP:**

Time	Customer	Product	Service	Dealer
Yearly	Name	Model Name	Name	Name
Quarterly	DOB	Model Year	Launch Year	State
Monthly	Gender	Price	Subscribers	Country
Weekly	State	Category	Revenue	Region
Daily	Country	Colour	Subscription Type	Contact No.
Season	Region	Specifications	SubscriptionPeriod	Email
	Contact No.	Warranty	Price Plans	Sales
	Email	Storage	Region	Revenue
		Place of Assembly	Country	Date First Operation
		Revenue		Payment Methods
		Sales		

		Cost of Manufacture		
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Facts: Profit earned in India in 2018, Region with the greatest demand for iPhones, Most popular product among the ages 18-25 years, Service that generates the most revenue in Australia, the most common nationality among employees **Data model:**



### **Conclusion:**

Hence, we have successfully understood the process of designing a data warehouse & the resources required to do so. We modelled an information package along with a star schema & fact table.

