About Data Analyst
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What is Data?

Data is a collection of information which is an important asset for a company, and if used properly and correctly it will have a positive impact on the development and progress of a company in the future.

Types of Data Practitioners

1. Data Engineer

   - Responsible for collecting data, cleaning data and preparing data

   -Data engineers will collect data, both internal data and external data, and after the data is cleaned it will produce data marts, data warehouses, and data lakes.

   -After the data engineer's work is complete and produces data that is ready to be used, then this data will be used for the benefit of the data analyst.

2. Data Analyst

   A data analyst is someone who is able to read data or insight or traffic of a company, and answer questions with data visualization and present what has been found, for the benefit and progress of the company. The results of the data analyst's work are in the form of automatic reporting or traditional reporting.

3. Machine Laerning Engineer

   - Responsible for applying data modeling to model deployment

4. Data Scientist

   -Someone who carries out tasks ranging from data collection to model deployment or someone who is able to carry out tasks as a data engineer, data analyst, to machine learning engineer.

   -Data science is a scientific field, while data scientist is a profession

Duties of a Data Analyst

1. Able to read or tell data from company history, especially what has happened to the company in previous years.

2. Create relevant data visualizations, based on what has been found from the company's history

3. Able to present or report data to related staff or company owners.

4. A data analyst must recommend what decisions should be made next based on the data that has been found. However, a data analyst is not obliged to make a decision on his findings, the final decision is then left to the staff or relevant stakeholders.

5. A data analyst must be able to answer questions from related staff or stakeholders who need this information, such as

   -What was the company's financial condition in the previous year 2022, 2021, 2020

   -What is the comparison of income in January, February, March, April, May?

   -How many customers visited and bought products when the exhibition was held?

   -What are the characteristics of customers, whether they buy with vouchers or cash or other things

6. Able to organize, sort and sort the data needed by the company, so that in carrying out work a data analyst is able to work quickly and correctly.

Why do Companies Need Data Analysts?

-To find out history or what has happened to the company before

-To find out what is happening with the company currently

-To make future decisions and anticipate all possible risks, to improve the company's progress.

Industries that Need Data Analysts

1. <u>Financial Industry</u>

   - Carrying out risk management, such as looking at the history of previous customers, whether they have been in arrears on installments or not paying installments at all, so that the company will be able to make decisions about potential customers who will take out loans so that the company is able to avoid the possibility of bad credit for the customer.

   -Analyzing potential customers, a data analyst is tasked with finding out what the condition of potential customers is like, so that the company does not make a mistake in providing revenue credit and is able to offer suitable products by providing a special strategy that the company has so that it is right on target and provides high profits.

   -Able to handle customers so they continue to use the company's services or products based on historical data, so that the company can anticipate the possibility of customers switching to use other products.

   -Find out what customers like and are currently interested in through certain websites or platforms

2. Retail Industry

-Carry out segmentation based on customer behavior when making purchases, so that companies are able to create websites or platforms that suit customer desires.

-Conduct research based on existing data to see the attractiveness of customers to buy products

-Analyze the time that is usually used to buy products, whether morning, afternoon or evening.

-See customer conditions, whether they like shopping with cash, or vouchers, or using other payments.

-See what products have high purchasing power so that they will increase company profits.

3. Creative Industries

- Carrying out sentiment analysis, for example a company is carrying out a campaign and in this activity there are a lot of various comments from the public or netizens, so that in the future the company will be able to create a campaign that is in accordance with the wishes of the community, so that it will increase the company's profits.

-Providing recommendations to readers or viewers, a data analyst must be able to read the viewer's behavior so that they are not wrong when giving recommendations and are relevant to what the viewer wants.

-Knowing the issues or topics that are currently being discussed, so that the company is able to provide content that is in high demand among viewers.

-Able to analyze viewers or readers, starting from their preferred time, what content they are interested in, etc.

Skills a Data Analyst Must Have

1. Hard Skill

-Able to operate Excel

-Have the ability to program data such as Python, R, SQL

-Able to visualize data as needed, for example if you want to compare a company's performance from year to year then you can use bar charts, etc.

-Have the ability to know data, know what data needs to be taken and what is needed (in what form and where to take it)

2. Soft Skill

-Business acumen, namely understanding what certain staff need to answer what they need, whether data that has been visible or is still hidden.

-Critical thinking, namely being able to convey what has not yet been known through historical data, so that a data analyst is able to provide recommendations for decisions or policies that must be taken by the relevant team in the future.

-Communication and presentation, namely having to be able to communicate well and correctly and be able to convey all findings based on data to stakeholders.

-Team work, namely a data analyst must be able to work together because carrying out his work requires related fields such as data engineers, business teams, creative teams, and other teams to advance a company.