ApexaIQ Day 7(Assignment 1)

*Data*

* ***Data*** *refers to raw facts, figures, and symbols that can be processed, stored, and transmitted.*
* *Data can be used as basis for calculation, reasoning or discussion in any organization or for individual.*
* *There are basically two types of data;*

1. *Qualitative Data*
2. *Quantitative Data*

* *Qualitative Data:*
* ***Qualitative data*** *is* ***non-numerical*** *data that describes characteristics, qualities, or attributes. It focuses on meanings, descriptions, and experiences rather than numbers.*
* ***Examples of Qualitative data are customer feedback, user reviews, product features, etc.***
* *Quantitative Data:*
* *Quantitative data is* ***numerical data*** *that can be measured, counted, and analysed mathematically. It is used to represent quantities, trends, and patterns in research, statistics, and business analysis.*
* *Examples of Quantitative data are number of users, sales in a month, etc.*
* *Data Sources:*
* *There are two major data sources;*

1. *Primary Data Sources: It includes door to door survey, student thesis or personal interviews.*
2. *Secondary Data Sources: It includes Internet searching, books, newspapers, research papers, etc.*

* *Data gathering:*
* ***Data gathering*** *is the process of* ***collecting, measuring, and analysing information*** *from various sources to support decision-making, research, and analysis. It is a crucial step in any research or business process.*
* ***There are 5 major steps involved in data gathering***

1. *Define objective*
2. *Identifying Data Sources*
3. *Designing Data Collection Methods*
4. *Data Collection*
5. *Data Recording and organization*

* ***Now to successfully understand all these Data Gathering steps in detail, let us collect a real data and understand all these steps accordingly.***
* ***Assignment Problem Statement: Research and gather data of your choice with clear goals and objectives with proper and valid explanation.***

1. *Define Objective:*

* *We will be collecting* ***“Cyber Security Incident Data.”***
* *The objective of this assignment focus on identifying, analysing and mitigating cyber threats that also include following objectives;*

1. ***Identify Cyber Threats***
2. ***Assess the impact of these threats***
3. ***Improve response strategies***
4. ***Enhance threat detection and prevention***
5. ***Regulatory compliance and reporting***
6. *Identifying data sources:*

* *Here we will be using secondary data sources.*
* *We will source out data from various news articles, blogs and research reports that are available on internet.*

1. *Designing Data collection methods:*

* *Here we will be collecting data manually from whatever sources we have, this can include;*

1. *Incident reports*
2. *Case studies*
3. *Searching relevant news articles*
4. *Data collection:*

* *Whatever data we have collected is given below in the form of Excel Sheet.*

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1. *Data recording and organization:*

* *The above Excel Sheet shows us the recorded and well organized data of the “Cyber Security Incident.”*

*About the Excel Sheet:*

* *This Excel sheet is used to track and analyse cybersecurity incidents within our country. It helps in identifying trends, evaluating the severity of incidents, and improving our security posture.*
* *The sheet has several columns, each representing a key aspect of the cybersecurity incidents;*

1. ***Incident Type:*** *Describes the nature of the attack, such as phishing, malware, or data breach.*
2. ***Date and Time:*** *The date and time when the incident occurred or was detected.*
3. ***Impact:*** *Describes the impact of the incident, such as financial loss, system downtime, or data exposure.*
4. ***Company Affected****: Tells us about the name of the company that was attacked.*
5. ***Type of attack****: Describes the type of attack such as Ransom Ware, Data Breach, Malware, etc.*

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