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Panel – 1
ROll — PA 29
Subject – BBA 1

Q1. Explain the various real world applications of big data.

→ It helps companies to better understand and attract customers
→ It allows companies to optimise their processes example - uber is able to predict demand, dynamically price journeys and send closest driver to customer.
→ It helps us to improve security Eg - Government and Law enforcement agencies use big data to detect crime rates
→ It allows sport stars to boost their performance Eg Sensors in balls, GPS trackers on their clothes allows athletes to analyse and improve upon what they do.

Q2 Analyse 6V's of Big data by considering suitable example for each.

→ Volume - Big data first and foremost has to be big and size in this use is measured as volume Eg: Clinical data associates with lab tests and physical visits.
→ Velocity - velocity in the context of big data refers to 2 related concepts similar to in healthcare, the rapidly increasing speed at with new data is being created by that data to be analysed in real time.
→ Variety - with increasing volume and velocity comes increasing variety. The third 'V' describes just what you'd think the huge diversity of data types that healthcare organisations all daily.
→ Variability - The way care is provided to any given patient depends on all kinds of factors on the way care is delivered and more importantly the way data is captured may

vary from time to time or place to place.

→ Value – The ~~data~~ big data must have v·e f
yave going to invest in the data, its
important to ensure that the insights that
are generated are vesed on accurate
data.

→ Veracity – This deals with trust worthiness. authen
ticity, origin, reputation; availability and
accountability.

Q3. List and explain the different types of databases.

Ans → centralized databases.

→ It stores data at a centralized database system

→ It allows users to acess stored data from different locations through several applications Eg – central library that carries a central database. ①

→ Distributed database

→ data is distributed among different database

→ These are worked via communication links Eg. – Apache, cassandra, etc.

→ Relational database.

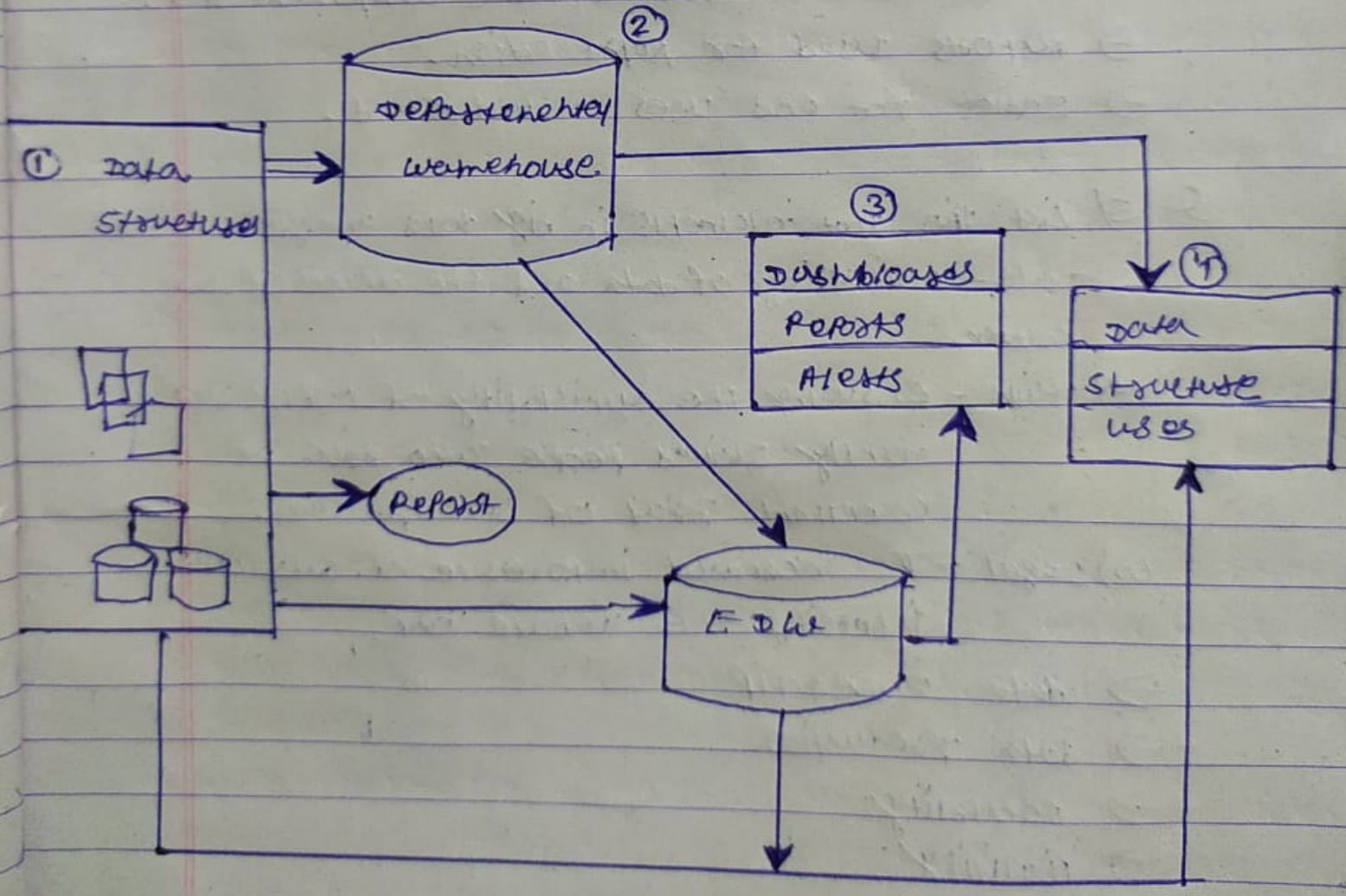
→ Stores data in form of Rows & columns and form as table.

→ RDB uses SQL for storing manipulating and maintainga data.

Eg – my SQL, oracle, etc.

→ Cloud database
→ Data is stored in a virtual environment and executes over cloud computing platform Eg: Azure / AWS.
→ Network Database.
→ Typically database follows network data model
→ Representation of data is in form of nodes connected via links.

Q4 Illustrate with a neat diagram and explain the architecture of big data analytics system.



→ Data source - for data sources to be loaded into data warehouse ; data needs to be well understand organized and normalized with the appropriate data types

→ Departmental webehouse - Data is read by existing applications always the enterprise for BI report purpose.

⇒ EDW - Enterprise data warehouse. these are central repositories of integrated data It is a system for reporting data analysis It is considered as core component of BI

⇒ Reports used for representation.

⇒ Easier for end uses to understand.

Q 5) List the main elements in big data analytics:

✓ Data - Availability of data and the access of data source.

✓ Skills - Ensuring the availability of highly and highly skilled people who have an excellent grasp of best practices.

✓ Legal - The increased importance of data will intensify the debate on.

⇒ data ownership

⇒ data protection

⇒ security

⇒ liability

⇒ cyber crime

⇒ IP

⇒ impact of diversities on data rights

c) Technical - Key aspects including real time analytics; Cloud computing and scalable data processing; etc all have to be advanced to open up new opportunities and to sustain / develop competitive advantages.

d) Application - Business and market ready applications need to be a core target to allow decisions to have market input.

e) Business - A more efficient use of big data and understanding data as an economic asset great potential for economy and society.

f) Social - It is critical for an accelerated adoption of
- Big data to increase awareness on identify and value that big data can create for business Public sector and others