**What is Big Data Analytics?**

Big data analytics is the frequently complex procedure of examining large and varied data sets -- or big data - to reveal data including hidden patterns, obscure connections, market trends and client inclinations that can enable organizations to make informed business decisions. Big Data Analytics gives analytics experts, such as data scientists and predictive modelers, the capability to break down Big Data from numerous and varied sources, including transactional data and other organized data.

Big Data has turned into a key differentiator in helping organizations prediction and make key decisions to stay focused and increase revenue, decrease risk and accomplish progress. Big data is playing key role in improving the efficiency in various sectors such as Travel, Healthcare, E-commerce, Retail, Manufacturing and many more.

**The Importance of Big Data Analytics**

Driven by particular analytics systems and software, high-powered computing systems, big data analytics offers different business benefits, including new income opportunities, more active marketing, better customer service, enhanced operational effectiveness and competitive advantages over competitors.

Big data analytics applications empower big data analysts, data scientists, predictive modelers, analysts and different analysis experts to break down developing volumes of organized transaction data, in addition to different types of data that are frequently left untapped by conventional business Intelligence (BI) and analytics programs. That incorporates a blend of semi-organized and unstructured data - for instance, internet clickstream data, web server logs, web-based social networking content, content from client messages and review reactions, cell phone records, and machine information caught by sensors associated with the internet of things.

**Big Data Analytics Technologies and Tools**

Unorganized and semi-organized data types usually don't fit well in customary data warehouses that depends on relational databases to structured data sets. Further, data warehouses will most likely be unable to deal with the handling requests posted by sets of big data that should be refreshed every now and again - or even continually, as in the case of real-time data on stock trading, the online activities of website visitor or the performance of mobile applications.=

Therefore, a large number of the organizations that gather, process and analyze big data turn to NoSQL databases, as well as Hadoop and its partner tools, including:

YARN: a group management technology and one of the key features in second- generation Hadoop.

MapReduce: It is software framework that enables developers to write programs that process enormous measures of unstructured data in parallel over a dispersed bunch of processors or stand-alone computers.

Spark: an open source, parallel processing framework that empowers operator to run large scale data analytics applications through clustered frameworks.

HBase: a column-oriented key/ value data store worked to keep running over the Hadoop Distributed File System (HDFS).

Hive: an open source data warehouse system framework for questioning and analyzing large data sets in Hadoop files

**Business Benefits of Big Data Analytics**

• Faster and better business choices

• Improved business execution with real time monitoring of events

• Increased product and service growth

• Competitive advantage the business

• Better identification of risk and active mitigation

• Enhanced client engagement

**Big Data Services we Offer**

**Data Warehousing**

Data management journey starts with a Data Warehouse where data is added from various mixed sources to data transformation and supports analytical reporting and decision making and also to help you stay updated in the fast-changing world of big data.

**ETL Analytics**

The excellence of ETL lies in its ability to gather, transform and assemble data in an automated manner thus saving users the time and effort of doing so manually. ETL tool will help match your data and add it into a target location, which primarily is a business intelligence (BI) or database tool of choice. There you can find it ready for your analysis. **Complex data is no longer a challenge.**

**Data Processing**

Data processing is a technique used by Octal is helpful in analysing big data sets at even petabyte level. Data processing is generally full power & full scale, handling self-assertive BI use cases, whereas real-time stream processing is executed on the most current cut of data for data profiling to pick anomalies etc.

**Data Integration**

Data is the basic unit of info that an organization depends on to generate the underlying business insights it involves combining data from several disparate sources. This information is massively impacted by the way this data is gathered, stored, combined and transformed into usable patterns and trends.

**Data Migration**

Data Migration is the process of moving data from one system to another while changing the storage, database or application. We guarantee effective and error free Data Migration, we also help you upgrade your current hardware or transfer to a fully new system.

**Data Audit**

We evaluate your present data by creating a log of all data transactions to analyse data health. We Make for an effective data migration and decrease needless infrastructure costs and difficulty of your new system for better operational productivities. Increase overall data quality and keep track of changes made to data.

**Data Governance**

Our Business Intelligence (BI) Governance service is a tailored framework to help decision makers design and implement main components of good Business Intelligence (BI) Governance such as guiding principles, decision-making bodies to fit your company's unique requirements.

**Data Lake**

We use a data lake to collect, store and analyze your structured, semi-structured and unstructured data, and simplify the extraction of actionable insights.