TASK 2.1

Text 1. **Genre/possible source:** _____

- **What features or elements in the text are typical of a formal or informal style?**

The 'cloud' is a real buzzword these days, but what exactly is the cloud, how does it impact what you do, and is it anything really new?

"What's the cloud?" "Where is the cloud?" "Are we in the cloud now?!" These are all questions you've probably heard (and not just from Amy Poehler in Best Buy's Super Bowl ad) or even asked yourself. –

In the simplest terms, cloud computing means storing and accessing data and programs over the Internet instead of your computer's hard drive. The cloud is just a metaphor for the Internet. It goes back to the days of flowcharts and presentations that would represent the gigantic server-farm infrastructure of the Internet as nothing but a puffy, white cumulonimbus cloud, accepting connections and doling out information as it floats.

What cloud computing is not about is your hard drive. When you store data on--or run programs from the hard drive, that's called local storage and computing. Everything you need is physically close to you, which means accessing your data is fast and easy (for that one computer, or others on the local network). Working off your hard drive is how the computer industry functioned for decades and some argue it's still superior to cloud computing, for reasons I'll explain shortly.

Text 2. **Genre/possible source:** _____

- **What features or elements in the text are typical of a formal or informal style?**

Cloud computing is the delivery of computing as a service rather than a product, whereby shared resources, software, and information are provided to computers and other devices as a utility (like the electricity grid) over a network (typically the Internet). Clouds can be classified as public, private or hybrid.[1]

-- Cloud computing relies on sharing of resources to achieve coherence and economies of scale, similar to a utility (like the electricity grid) over a network.[1] At the foundation of cloud computing is the broader concept of converged infrastructure and shared services.

Cloud computing, or in simpler shorthand just "the cloud", also focuses on maximizing the effectiveness of the shared resources. Cloud resources are usually not only shared by multiple users but are also dynamically reallocated per demand. This can work for allocating resources to users. For example, a cloud computer facility that serves European users during European business hours with a specific application (e.g., email) may reallocate the same resources to serve North American users during North America's business hours with a different application (e.g., a web server). This approach should maximize the use of computing power thus reducing environmental damage as well since less power, air conditioning, racks pace, etc. are required for a variety of functions. With cloud computing, multiple users can access a single server to retrieve and update their data without purchasing licenses for different applications.

Text 3. **Genre/possible source:** _____

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Cloud computing is one of the most significant shifts in modern ICT and service for enterprise applications and has become a powerful architecture to perform large-scale and complex computing. The advantages of cloud computing include virtualized resources, parallel processing, security, and data service integration with scalable data storage. Cloud computing can not only minimize the cost and restriction for automation and computerization by individuals and enterprises but can also provide reduced infrastructure maintenance cost, efficient management, and user access [4]. As a result of the said advantages, a number of applications that leverage various cloud platforms have been developed and resulted in a tremendous increase in the scale of data generated and consumed by such applications. Some of the first adopters of big data in cloud computing are users that deployed Hadoop clusters in highly scalable and elastic computing environments provided by vendors, such as IBM, Microsoft Azure, and Amazon AWS [5]. Virtualization is one of the base technologies applicable to the implementation of cloud computing. The basis for many platform attributes required to access, store, analyze, and manage distributed computing components in a big data environment is achieved through virtualization. Virtualization is a process of resource sharing and isolation of underlying hardware to increase computer resource utilization, efficiency, and scalability.

The goal of this study is to implement a comprehensive investigation of the status of big data in cloud computing environments and provide the definition, characteristics, and classification of big data along with some discussions on cloud computing. The relationship between big data and cloud computing, big data storage systems, and Hadoop technology are discussed. Furthermore, research challenges are discussed, with focus on scalability, availability, data integrity, data transformation, data quality, data heterogeneity, privacy, legal and regulatory issues, and governance. Several open research issues that require substantial research efforts are likewise summarized.

Text 4. **Genre/possible source:** _____

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Today the term cloud computing describes the abstraction of web-based computers, resources, and services that system developers can utilize to implement complex web-based systems. Often these cloud-based resources are viewed as virtual, meaning that if a system or solution needs more resources, such as processors or disk space, the resources can simply be added on demand and usually transparently to the application that uses them. Through their virtual nature, cloud-based solutions can be scaled up or down in size, and the companies whose solutions reside in the clouds normally pay only for the resources they consume. Thus, companies that once relied on expensive data centers to house their processing resources can now shift their costs and maintenance efforts to pay-as-you-go, scalable, cloud-based alternatives. -- For years, when companies wanted to place content on the web, they hired web developers, who created the underlying HTML documents. Through this process, the number of documents on the web exploded to billions worldwide. Web 2.0 is a term used to describe the set of tools and websites that allow users to publish content to the web without the direct use of HTML.