**MIS2502: Data Analytics
Optional Extra Credit Assignment**

Cloud-based analytics is used to run information on data analysis and business intelligence. Cloud-analytics is important in a business setting as it helps reduce costs and complications for the administration. There are 3 main types of cloud analytics, which are public cloud, private cloud, and hybrid cloud. The public cloud is provided by a third party and used for on demand computing services which are shared with multiple organizations through public internet. This enables lower equipment costs and lower equipment maintenance costs. While private cloud usually has a cheaper investment in infrastructure it is not as scalable as public cloud. Private cloud is only accessible to one company and acts an extension to the infrastructure. Lastly, Hybrid Cloud is any combination of both Public and Private Cloud that offers the benefits of both. This is found useful when a company provides it services publicly while keeping sensitive data in the private cloud. The other reasons it is important is that it allows for great flexibility as companies are constantly changing allowing for faster and accurate decisions. It allows companies to use services when needed, allowing for scalability. Finally, as the Internet of Things generates lots of data the cloud acts a database to hold the data which can be used to consolidate data and better understand the data when collected. This concept builds on what we have been learning in class as we have been working with SQL and NoSQL databases where we see changes such as scalability and flexibility take place in terms of data extraction. Today, there are advancements in SQL servers and cloud infrastructure that allow running SQL servers in cloud drives that create no downtime. SQL’s built-in tools allow companies to scale and manage servers efficiently, with simple administration. SQL also has database encryption so people can not steal data. An example of how this has been used in practice is AWS (Amazon Web Services) which is broken into different cloud computing services. Their goal is to transition companies away from physical technology to cloud. It is great for building up a business from the ground up as it provides all the tools necessary to start up a company. The data is safe from any intrusions and aid in expanding as it is a flexible tool. It is because of this it is the lead cloud computing platform.

# References

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