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Project Deliverable 4 Analytics, Interfaces, and Cloud Technology

Information Systems Capstone

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Project Deliverable 4

**Introduction**

For long, data analytics have been used in directing business strategies and maximizing the levels of business profits. Fundamentally, data analytics remains essential in removing the much guesswork that is often involved in attempting to understand customers. In essence, it is utilized to analytically track data patterns and trends to better construct business approaches and operations in efforts to reduce the level of uncertainty that might occur. Apart from establishing what might attract new customers into a business, data analytics also identifies the prevailing trends in data to assist in serving the existing customers in the best ways. It is, thus, apparent that using data analytics is much cost-effective than creating a new business. With today’s ever-changing world, where anything can happen, data analytics offers organizations an advantage in distinguishing changing variants to take suitable actions in staying competitive and profitable (Talia, 2013) Moreover, alongside analytics, another concept is known as ‘cloud computing’ plays vital roles in driving business success. In particular, cloud computing enables businesses to become more efficient. Equally, the amalgamation of both data analytics and cloud computing helps firms to gather, pile, understand, as well as process their different kinds of data to draw vital insights while meeting their customers’ needs.

**Need for the use of Analytics and Cloud Computing**

These two concepts are important because they help in opening more doors for the business, and thus, enabling the ability of the firm to process vast amounts of data. They also provide the company with a myriad means of addressing its technology versatility. One primary need for these two concepts in a business is for scaling the business’ infrastructure. In essence, scaling the company’s cloud infrastructure would mark its growing application of computing abilities. With scaling, the company’s systems can also automatically start even when the host server is overloaded. To a greater degree, the company’s data infrastructure would become more efficient, cost-effective, as well as receptive to different customers’ demands. Moreover, by only paying for the server load, the business need, including its costs for data control, would scale with usage and provide the most economical solutions for its business (Gupta, Gupta, & Mohania, 2012).

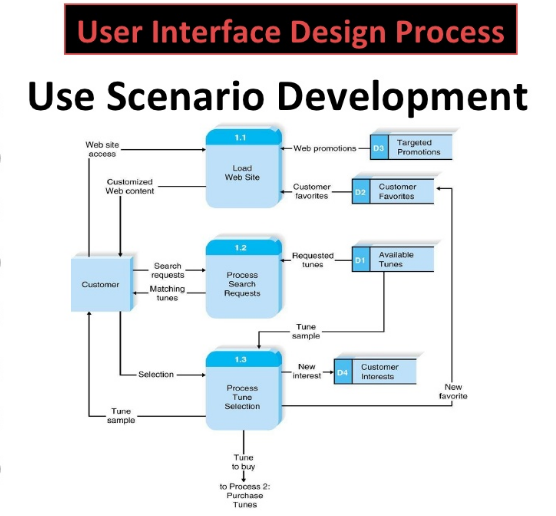
The other business need is cloud-based offices. Nearly each business today is striving and seeking collaborative work systems or environments. As such, cloud-based technologies will offer the company better support for its group-based tasks and projects as compared to the use of traditional methods. In this way, such cloud-based systems will further allow many users to collaborate and work concurrently, with all changes seen in real-time across different device tools. The third need to regards remote workplaces. In particular, cloud-based systems would also allow the company to drive its location-independent office settings. Thus, the capacity to team up over the cloud-computing networks would also give the company’s workers the flexibility and support they require to work remotely while completing different projects or tasks when on conferences or trips. Other cloud-based services, including Skype, usually helps in keeping communication lines open for groups to collaborate and work together efficiently.

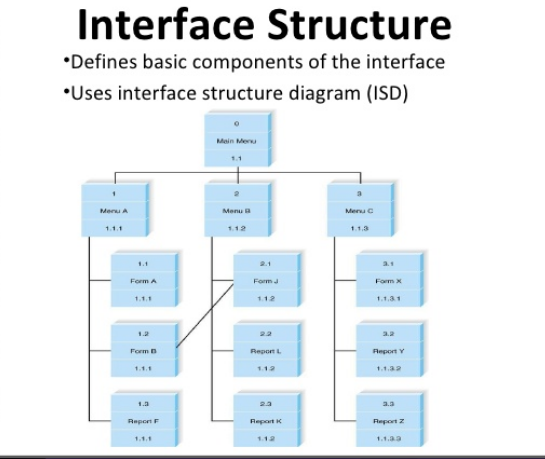
Within the next decade, it is expected that almost three-quarters of the workforce in the world will work remotely, significantly changing the business’s infrastructure. By adopting the remote workstations, the business will be able to move ahead and compete with its rivals on the same playground. Additionally, services such as telecommunication will help the company to circumvent different costs that are related to the traditional systems. In this way, it is paramount to note that cloud computing will play a vital function in breaking down any social barrier that might confront the firm. The fourth need regards the use of big data based on the business’ data analytics. Today, nearly all business uses big data to gain valuable insights into consumers’ purchasing trends and patterns. Hence, analytics will give the company the power to make crucial decisions based on in-deep customer data analysis. Also, analytics will provide the company with more relevant information from its customer base. With analytics, the business will also have the ability to track its products efficiently. Data analytics is known as the king of efficiency and prudence. It is why large and successive companies such as Amazon have been able to gain massive achievements due to their use of analytics to track their goods across different places and warehouses irrespective of customers’ location. The other important use of analytics in this company will be keeping track of its records. Consequently, the information stored in clouds will enable the company to have a better understanding of their clients’ buying behaviors. Therefore, as clouds and analytics become more dependable, safe, and cost-efficient, the utilization of analytics in computing will also double. It is soon possible that companies’ information can be stored on clouds and retrieved from anywhere by its different users.

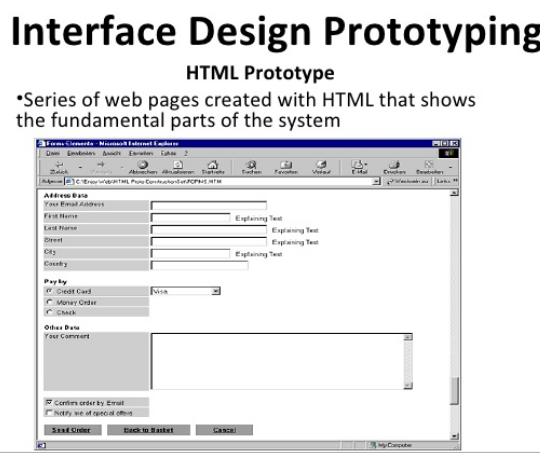
**A Work-Flow Diagram**

|  |  |  |
| --- | --- | --- |
| **Customer** | **Order Clerk** | **Company’s system** |
| No  Yes  Request placed  Customer data entered  Customer data found/displayed  Verify Infor/correct  Save customer information  Begin order processing  Create new order  Ticket package request  Package addition  Adding package to order  End order  End order  Compute totals  Provide payment  End payment  Verify/Finalize |  |  |

**Interface Screen Layouts**







**Recommendation to Ensure Security**

Analytics and cloud services underpin several services, including Gmail, Skype, and others. As emerging technologies in the world today, these services are also essential in easing almost all business operations. Moreover, they also assist in giving businesses competitive edges, and therefore, helping them to operate in their given industries successfully. One of the advantages of these services is cost efficiency, which is the most significant reason why companies shift to cloud services. In essence, migration to cloud services is comparatively cheaper, fast, and efficient when compared to on-the- premise technologies (Talia, 2013). Today, firms do not need to store their information in disks as cloud services provide the most secure and huge storing capacities, helping to save money, time, and other resources. The additional advantage is high speed, where cloud services allow companies to deploy the service quicker and using fewer clicks. This advantage lets firms achieve the required resources for their systems in minutes. However, in efforts for businesses to maintain these advantages, it is recommended that they protect their cloud applications, connections, as well as access. In particular, the use of programs such as cloud-flare is important in accelerating and protecting companies’ cloud applications.

References

Gupta, R., Gupta, H., & Mohania, M. (2012). Cloud computing and big data analytics: what is new from databases perspective? In *International Conference on Big Data Analytics* (pp. 42-61). Springer, Berlin, Heidelberg.

Talia, D. (2013). Clouds for scalable big data analytics. *Computer*, (5), 98-101.