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| **FACULTY OF ENGINEERING & COMPUTING** |

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| **Programme** | : | Bachelor of Software Engineering (Hons) |
| **Academic Year** | : | 2019 |
| **Module** | : | Business Intelligence |
| **Module Code** | : | CIS2016 |
| **Module Leader** | : | Kwan Lee |
| **Assignment Type** | : | Report |
| **Intake/Group** | : | Intake/Group |
| **Distribution Date** | : | Monday, 14 October 2019 |
| **Submission Date** | : | Tuesday, 3 December 2019 4:55 PM |

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| **Student Name** | **Student ID** | **Class Code** |
| Bradley David Nalliah | B0350 |  |

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| **Assignment Feedback Form** |
| Business Intelligence |

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| Criteria | Marks | Comments |
| Analysis the Problem faced by the Company | /5 |  |
| Discussion | /10 |  |
| Format Report | /5 |  |
|  | Total |  |

Marks:

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| **General Comments:** | |
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| **Assessor’s Signature**: | **Date:** |
| **Name: Kwan Lee** | |

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| **Section: Documentation**  **/20** | | **Excellent** | **Good** | **Satisfactory** | **Marginal** | **Poor** | **Comments** |
| **(Out of 5)** | Analysis the Problem faced by the Company |  |  |  |  |  |  |
| **(Out of 10)** | Discussion |  |  |  |  |  |  |
| **(Out of 5)** | Format Report |  |  |  |  |  |  |

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| **General Instructions** |
| Use the following format for the preparation of the *assignment submission*.   * Paper size : A4 * Margins: left = 1.5”, right, top and bottom = 1” * Font size : 12 , Times New Roman/Arial * Line spacing : 1.5 * Text alignment : Full Justify * Number all pages sequentially * Number all Figures and Tables sequentially and refer them in the text * Binding: **staple at top left corner** of assignment submission * Reference format: Harvard or IEEE |

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| **WARNING** |
| * + Assignments submitted after the due date will be considered late.   + Assignments submitted not later than two weeks after the due date will be marked, but the marks will be capped to a maximum of 20%.   + Assignments submitted later than two weeks will be marked, but carry zero mark.   + First City University College takes allegations of plagiarism very seriously. Submissions involving plagiarism will be marked, but given zero mark. Plagiarism is the attempt to pass off the work of another as your own. Information taken from the work of others should be acknowledged by reference to obviate the charge of copying.   + Collusion is an academic irregularity within the First City University College assessment regulations. Any student found colluding in the production of any assessment will be subject to an investigation with the imposition of any penalty deemed appropriate. Students must ensure they are familiar with the definition of collusion. |

1. **Assignment**

This is an individual assignment and it contributes **20%** of the assessment.

In this assignment, you are required to prepare case study report based on the given case study: Domino Pizza Case Study

This assignment consists of **TWO (2)** tasks as listed below:

***Task 1 –*** ***Analyse the Problem faced by the Company***

From the case study given, analyses what are the problems faced by the Domino Pizza.

***Task 2 – Discussion***

If you were the Business Intelligence (BI) analysis, in your own opinions:

1. Discuss how you can/should re-identify the cycle of BI analysis.
2. Discuss what type of analysis techniques (descriptive, predictive, and prescriptive) you will propose to address the problem?

S***ubmission Requirements***

1. Submit a soft copy and a hard copy of your report, following the general instructions described above.
2. Submit a copy of TurnItIn report.

Details of TurnItIn

Class Id : 22690225

Enrollment Key: 1234

1. Submit a copy of your report into GitHub repository.
2. Minimum number of report pages is 3, and maximum number of report pages is 10 pages (excluding the front cover, table of content pages and appendix).

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**Task 1 – Analyse the Problem faced by the Company**

Based on the Case study provided regarding the situation with the Domino’s Pizza company, the main problem that I was able to identify and analyse from the case study is the issue related to the unauthorized and invalid vouchers that we used by customers and somehow the company’s database accepted the vouchers and enabled transactions to be made. Another issue and problem that was identified was the fact that these promotional free and discount vouchers for selected pizza items were allowed to be reapplied and reused on Domino’s pizza’s online ordering system. With these flaws and mistakes from the online ordering system, some customers were able to expose these errors and take advantage of this situation by gaining multiple free and discounted items on various transactions and orders. Besides that, another problem that was identified and pointed out was Domino’s Pizza’s reaction to this situation. As a well-known worldwide company, Domino’s is being watched all around the world as to how it handles, cares and looks out for its customers. With that being said, Domino’s is always expected to be a professional and well organised company. However, with the issues that Domino’s faced with this situation about the invalid vouchers and their inefficient and unsecure online ordering system, they mishandled this situation. This can be further explained with how Domino’s accused their customers and got the Police involved in the situation to interrogate their own customers. Even though these customers might be at fault for taking advantage of the invalid vouchers situation, Domino’s should not have put so much blame on these customers and should have not focused on accusing their customer but instead they should have taken this as a learning experience and used this situation to identify their flaws and make changes and improvements, especially to their database and online ordering system. So overall, based on the case study given, the critical factors of the problem that were identified were that Domino’s needs to fix their online ordering system and they need to find a solution to fix the problem with their databases which is accepting used and invalid vouchers because if these problems are not fixed, Domino’s will lose lots and lots of money and revenue. This is because anyone will be able to lower the price of the original pizza order by using the invalid vouchers and tricking the system.

**Task 2 – Discussion**

1. **Discuss how you can/should re-identify the cycle of BI Analysis**

Domino’s Pizza needs to re-identify and restructure their BI Analysis in order to improve on their flaws and learn from their mistakes. There are four stages of the BI Analysis which are Analysis, Insight, Decision & Evaluation. So to begin the BI analysis of any system, it is a must to start with the Analysis phase. It is critical to correctly identify and spell out the problem at hand. So with the identification of the problems at hand, which are the invalid vouchers and the fact that the database is accepting these vouchers as well as the online ordering system. Domino’s also have to accept the fact that they were wrong with the way that the situation was handled and an appropriate apology should be issued to the customers that were treated in such fashion. Next, we need to move to the Insight phase of the BI Analysis. The Insight phase of this analysis is the part in which the problem (the invalid vouchers and the online ordering system) is deeply understood and further looked into. So when relating the case study to the insight phase, Domino’s has to further look into its online ordering system, as well as identify the flaws within its databases to find out how and why the used and invalid vouchers were accepted and how their system has such an open loophole within it. The next phase of the BI Analysis cycle which Dominos needs to follow would be the decisions phase. In this phase, decisions are made based on the further analysis of the problem as well as identification of solutions to the problem from the Insight phase. When relating the Decisions phase of the BI Analysis to the case study, it must be said that Dominos has to identify and analyse as well as make decisions on what solutions and improvements can be made regarding the improvement of their online ordering system as well as their database. Decisions need to be made by Dominos in this phase to implement which solutions to their problems. The last phase of the BI Analysis cycle is the Evaluation phase. In this phase of the BI Analysis cycle, the performance of a system or application is measured and evaluated in order to see if everything is going according to plan. When relating the Evaluation phase to the case study, Dominos need to do performance checks and evaluation on the solutions that they implement to the flaws within their system. Domino’s need to especially do constant checks to see if the problem and flaw related to the accepting of invalid and used vouchers has been resolved in order to ensure a more effective and efficient online ordering system is in place.

1. **Discuss what type of analysis techniques (descriptive, predictive, and prescriptive) you will propose to address the problem?**

In my opinion, Domino’s should use a predictive type of analysis technique in order to address and find a solution to their problem and flaw with their online ordering system, which is accepting invalid vouchers for discounts for their meals. Domino’s should restructure their databases within their online ordering system to follow a predictive analysis technique. In my opinion, a predictive analysis database would be the solution to their problem regarding the acceptance of invalid and used vouchers. A predictive database would be one which collects the data (the voucher number) entered in by the user, checks with the records stored within the database to see if the following voucher number entered by the user has been used before or is an invalid voucher, before returning the result of the check to the user to see if the voucher number entered in by the user is invalid or usable. If the voucher number entered is invalid, the system should prompt an error message asking the user to enter another voucher number which is valid to get the discount if not they will only be able to checkout without a discounted amount to their order. If the voucher number is valid and not used before, then the user will be able to get a discounted value to their order. So the most important models that need to be used from the predictive analysis technique is Data Collection and Data Analysis. If these two models are implemented into Domino’s database and online ordering system, then I am sure that their problems and issues will be resolved and that they will have a much more effective and efficient online ordering system.

**References**

1. What is Predictive Analytics – Predictive Analytics Today. [Online]. Available from: https://www.predictiveanalyticstoday.com/what-is-predictive-analytics/. [Accessed 29th November 2019].
2. Descriptive, Predictive, and Prescriptive Analytics Explained, Halo Business Intelligence. [Online]. Available from: https://halobi.com/blog/descriptive-predictive-and-prescriptive-analytics-explained/. [Accessed 30th November 2019].

