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# Task 1 – Identify the Problem faced by the Company

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

Based on the case given, Domino Pizza Malaysia had met a major problem with their system when they had noticed an irregularity in some of the orders. Due to the problem, Dominos had acted by reporting to the authorities, but it was backlashed by the netizens [1] and it is noticed that Domino Pizza Malaysia have some problems in their system [2]. This had caused Domino to issue an apology video to the netizen on 26 September 2019 [3].

One of the problems that are currently faced by Domino Pizza is the weakness in the security of their promotion code system. This means that the user can reuse and stack the same voucher code for a few times and complete their order without adhering to the minimum spend needed to process the transaction. Along with that, Domino Pizza’s system should validate each coupon that the user used and prevent the user from reusing the same code in a transaction. For example, one code per transaction per user; no duplication nor limit to staking of code.

Other than that, Domino Pizza does not frequently update their system causing their terms and condition stated on the voucher to not tally up in their system, which means that when the user decides to order food via online the user can bypass the system security easily compare to when the user decided to purchase the pizza via counter as the cashier will validate the validity of the coupons and will notify the user whether the coupon can be stacked or used while when the user purchase the pizza via online system no one can validate the coupon validity other than the system.

Another problem that is faced by Domino Pizza is that Dominos did not maintain and validate their system to ensure that there are no flaws and the system will work smoothly and according to the requirements stated by the stakeholders. When Domino Pizza did not update nor maintain the system, it will cause the system to go outdated with the current promotion and the current terms and condition. When Domino Pizza did not fix the glitches in the system, these flaws will go unnoticed until a user decides to order from the system and realise that the amount does not tally with the user’s order, thus this will cause unnecessary stories or rumours about Domino trying to scam their customer or vice versa, the customer who notice the flaws in the system can use it to their advantages and exploit the glitch to spend less while getting more pizza [4], thus Domino will then argues that the customers are trying to make the most out of them instead.

In Summary, it shown that Domino Pizza’s System has many loopholes around for the users to exploit or take an advantage over them. This will cause major setback to their business and it will cause the user to lose trust towards Domino due to the inability to proof the integrity of their system.

# Task 2 – Discussion

If you were the Requirement Analysis Team, in your own opinions:

1. Discuss in which stages of the software requirement engineering activities you will perform the re-analysis again?

Out of the four software requirement engineering activities, Domino Pizza Malaysia should perform a re-analysis towards the requirement validation and negotiation, and the requirements managements. Requirements management is about organising the requirements and additional information gathered during the requirements engineering process and managing changes of these requirements [5]. The reason why these stages need to be re-analysed is because Domino Pizza should have check whether requirements meet the system’s certain quality criteria and the system’ conflict should be resolved before releasing the system to the public. Domino should also ensure changes and maintenance are implemented and updated consistently to reduce conflict among the stakeholders, mainly the customers.

One of the process/ activities that Domino should focus on is the detection on changes in system. Early detection of the system glitch can allow the software developer ample time to correct the system’s anomalies and not only fix the system when the problem or flaw have been exploited by the public user.

Not only that, Dominos should improve on their system development. As Farm Cradit Administration had stated, “Systems development is the process of defining, designing, testing, and implementing a new software application or program” [6]. For every update that is suggested, Domino should ensure that the system development is in check and the system is able to cope with the updates needed. Domino should conduct an alpha testing on their system for every version of prototyping (especially the database integrity part) made before making the system public to customers.

Along with that, Domino should conduct maintenance for a range of every 6 to 8 months to prevent sudden system error or worse case, system crash. As for requirement managements, this plays an important role due to ever changing environment and stakeholders’ requirements and needs. During maintenance or update, the developer should collect and analyse the current environment and trends to ensure that the system is up to date and efficient.

1. What are the requirements (functional, qualities, and constraints) the company should improve on?

Domino Pizza Malaysia should improve on the functional requirement, which is to provide a weekly summary report. In this report the system should provide the transaction report and record any abnormal or suspicious transaction made in that week so that the person in charge can investigate it to prevent any prolonged problems to spread.

In terms of qualities (non- functional), the company Domino should improve on their maintainability so that the system can be maintained to achieve the current standard or requirements. As defined in the Susan Bergin’s case study, maintainability is defined as a “the change isolation effort, change implementation effort and the number of modules changed.” [7].The system should improve on its quality to detect any fault in transaction process at any time during the working hours, which is usually during 10:30AM till 11:00PM.

As for constraints, the company Domino should improve in their system so that the system can update and maintain on a timely basis as that the system is up to date with the current promotion and coupons and to reduce software vulnerabilities such as security holes as stated by Blue Link where “regular updates and maintenance will allow you to keep up with market trends and ensure your business is as efficient and effective as it can be” [8] .

1. Based on your discussion in Task 2. Provide **THREE (3)** example of the requirements.

F1: The system should provide a weekly report summary to detect any abnormal transaction.

NF1: The system should be able to detect and adapt to faults and abnormality in transaction.

C1: The system’s software should be updated every 6 to 8 months to ensure that the voucher’s terms and condition are up to date.

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