

FIT2090: Business Information Systems and Processes

Assignment One

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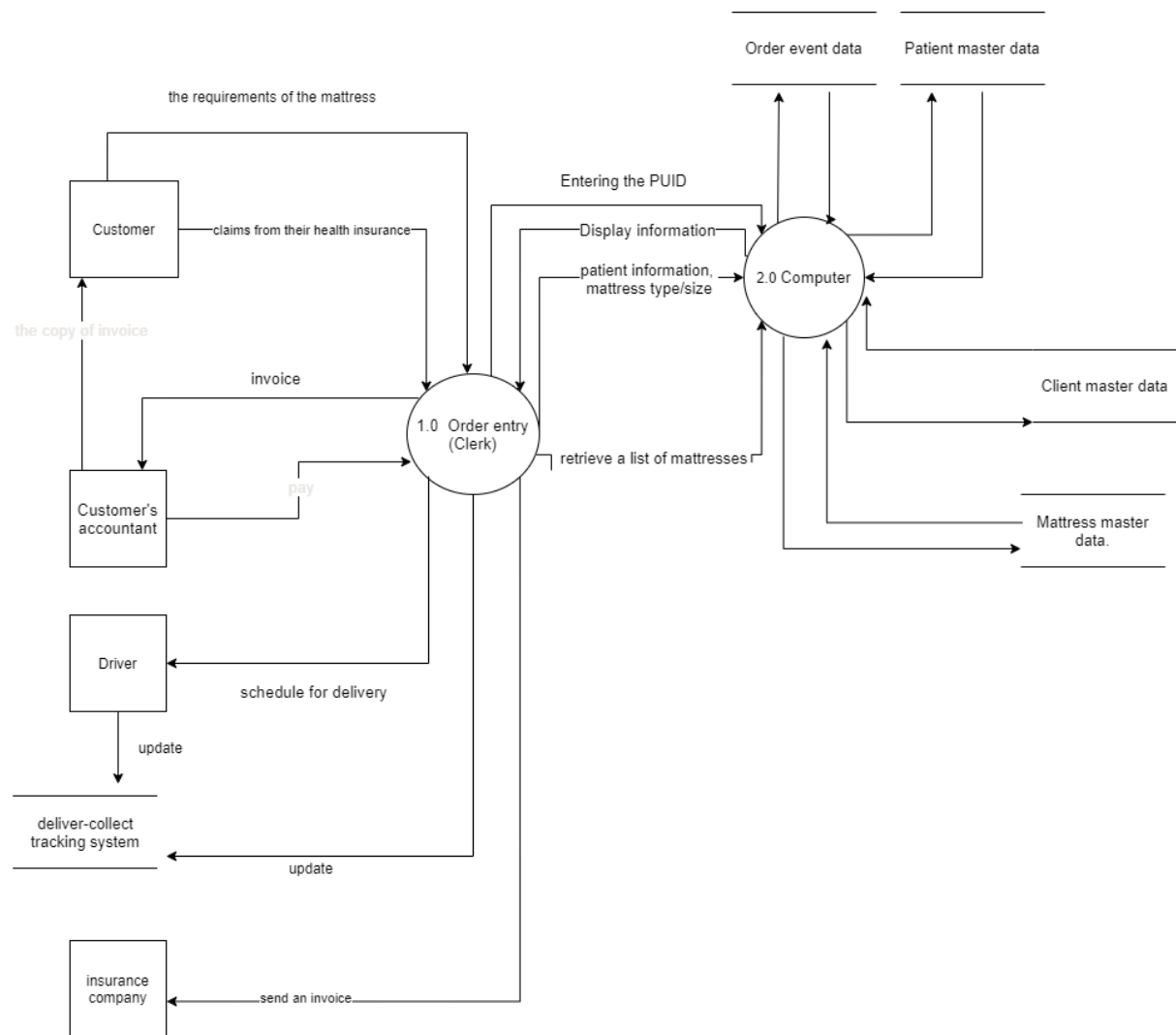
Task 1:

1)

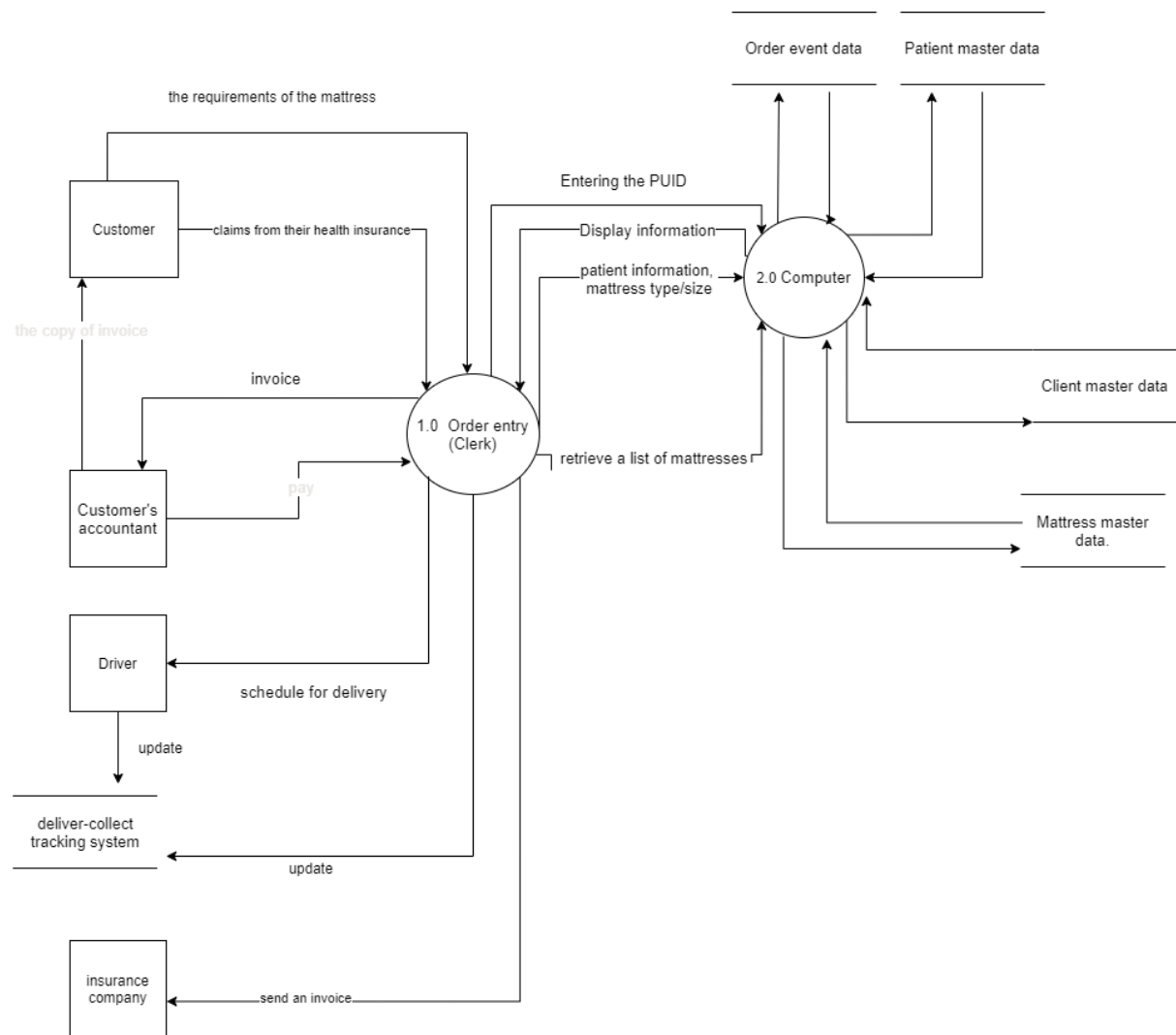
Table of Entities and Activities (Annotated)

Entities	Para	Activities
Customer	3	1. call or email SAM's clerk
	3	2. inform them about the requirement of mattress
Order entry (Clerk)	3	3. Entering the PUID into the system
Computer	3	4. Display information
Order entry (Clerk)	3	5. Checks the existence of the client and Patient Unique Identifier (PUID)
	3	6. retrieve the patient information, mattress type/size needed from the database
	3	7. retrieve the delivery details from the database and lodge the order.
Computer	4	8. generates a reference number saved in the Order event data
Order entry (Clerk)	4	9. retrieve a list of mattresses that meet the requirement from the Mattress master data
	4	10. schedule for delivery
	4	11. inform SAM's drivers
drivers	4	12. Receive
Order entry (Clerk)	5	13. sends the invoice to the accountant
Customer's accountant	5	14. pay and sends a copy of the invoice to the Customer
Order entry (Clerk)	5	15. update the payment information in the Order event data
Customer	6	16. claims from their health insurance send to clerk
Order entry (Clerk)	6	17. collect
	6	18. send an invoice to their insurance company

2)



3)

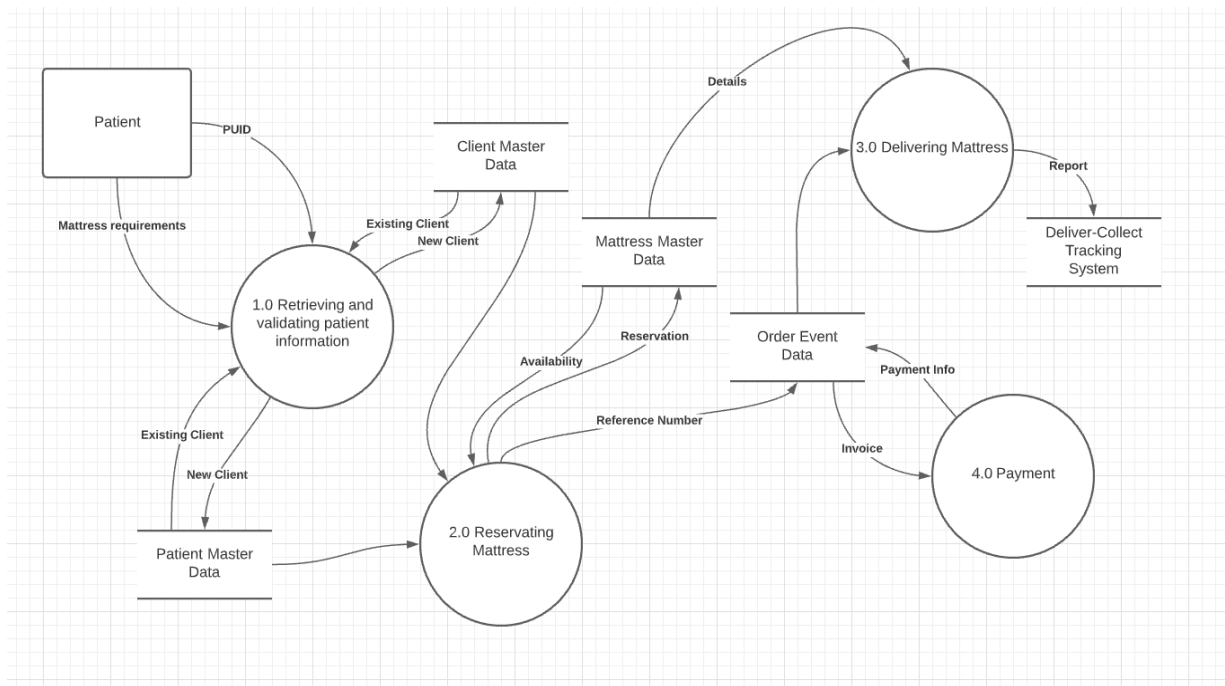


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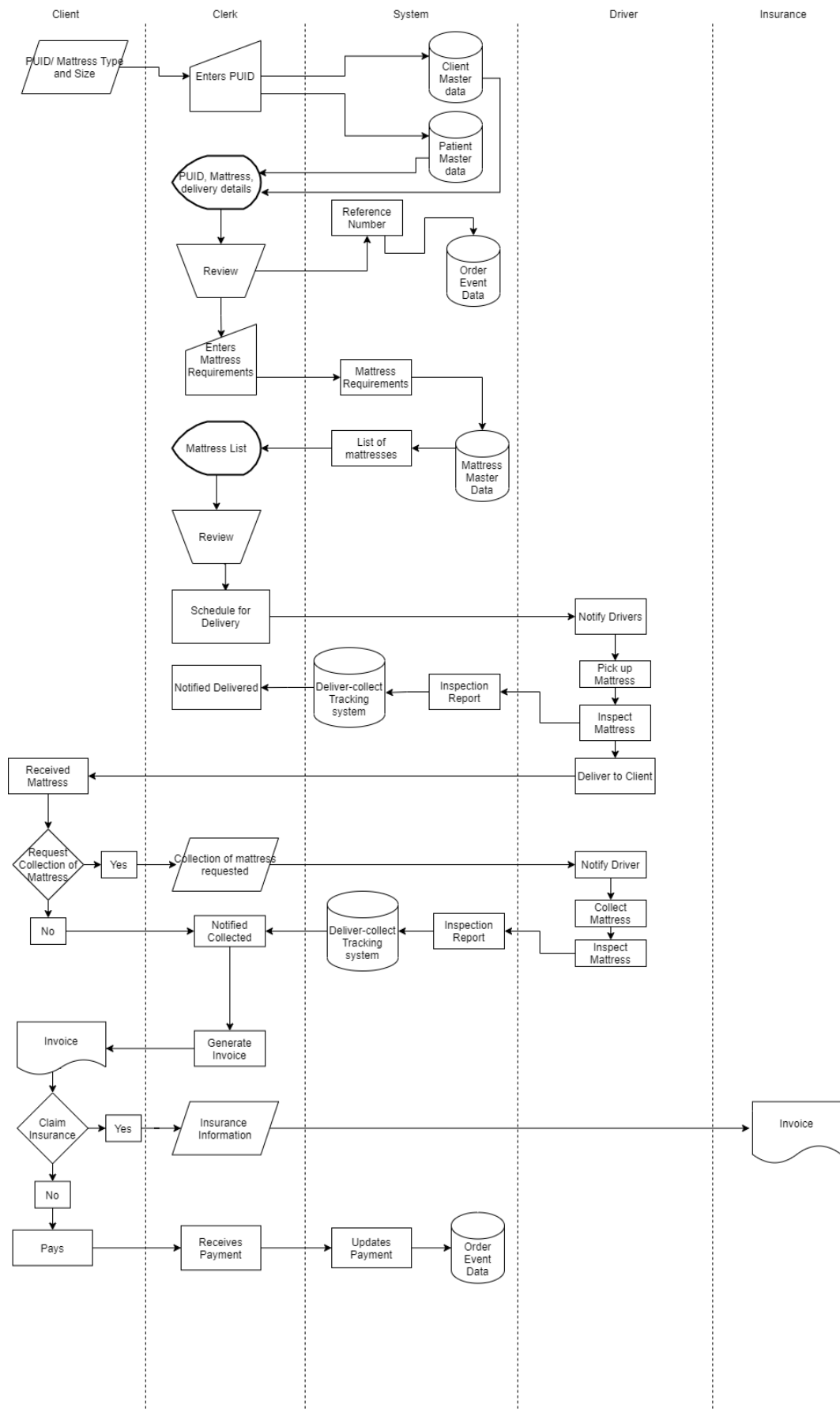
Table of Entities and Activities (Annotated)			
Entities	Para	Activities	Process
Client	3	19. Call or Email SAM Clerk	1.0 Retrieving and validating patient information
	3	20. Request mattress requirements	
Order Entry (Clerk)	3	21. Receiving mattress information	
	3	22. Entering PUID	
Computer	3	23. Display information	
Order Entry (Clerk)	3	24. Check existence of client and PUID	
	3	25. Retrieves patient information, mattress type/size from database	2.0 Reservation of Mattress
	3	26. Retrieve delivery details from database and lodge the order	
Computer	4	27. Generates reference number and saved in Order event data	
Order Entry (Clerk)	4	28. Schedule for delivery	3.0 Delivering Mattress
	4	29. Inform SAM drivers	
Drivers	4	30. Receive delivery information	
	4	31. Conduct inspection of mattress	
	4	32. Inspect report on deliver-collect tracking system	
	4	33. Deliver	
Order Entry (Clerk)	5	34. Sends invoice to accountant	4.0 Payment
Accountant	5	35. Payment delivered	
Order Entry (Clerk)	5	36. Update payment in Order event data	

Customer	6	37. Lodge insurance claim and send to clerk	
Order Entry (Clerk)	6	38. Receive insurance claim and information	

5)



6)



Task 2:

Question 1:

Organisations who adopt the use of Business Information System (BIS) concepts are more than likely to have an effective business practice. By implementing concepts of BIS, it minimises human error and maximises work efficiency within the organisation. Without BIS practices, organisations can fall apart as they could be operating on a framework that could be not effective in real practices as potential work efficiency is decreased, organisation data is mismanaged, and time efficiency is poor. Hence, investing in BIS practices in an organisation is hugely beneficial for operations and business goals in the future. An example of a business that did not adopt BIS concepts and practices is Sanitised Air Mattresses.

Question 2:

Sanitised Air Mattresses (SAM) business practices are found to be ineffective in the long term as there are many inefficient processes as described in the scenario. Firstly, the mattresses meet requirement checking is too late in the process. This process is inefficient as when the clerk pushes the reference number to the database. After checking, there might not be any mattress left in the stock. As a result, the clerk has to nullify the reference number. If checking stock before creating a number, it will not create a lot of invalid reference numbers. Secondly, the whole system confirms the rental before the customer pays for the rental. Efforts of the company including the employees will be wasted if the client does not have enough money to pay for the invoice. Thus, reducing profits. The clerk should send the payable invoice to the client before mattress delivery. Another time inefficiency within SAM is when drivers record the condition of the mattress before and after collection is uploaded by QR code to the deliver-collect tracking system. In the given scenario, the deliver-collect tracking system is a completely different system from the central computer system. This complicates the overall system when the clerk is required to review the condition of the mattress and its delivery status. If such a mattress goes missing, there could be data mismatch and could result in the mattress being mishandled and responsibilities cannot be placed either on the client or the company. Therefore, SAM needs to employ BIS concepts and practices in their operations which will enhance the longevity and meet its business goals.

Question 3:

To improve business practices in SAM, SAM should use the "Six Sigma" concepts to improve its business practices to minimise mistakes and defects within SAM's business processes (Adam, 2021). Six Sigma's approach follows a method known as DMAIC (Define, Measure, Analyse, Improve, and Control). It helps identify and define faulty processes in the system by measuring the initial performance of the process and identify potential problems within the process. After the elimination of the potential problems, conduction by measuring the performance after the eliminations with providing whether the potential problems had an impact on the efficiency of the operations. If it does impact the efficiency of the operations, it is safe to eliminate the problem from the process and increase the efficiency of the process. For example, in SAM, clients would have to phone or email the clerk to place the order. This increases the workload of the clerk and decreasing the efficiency of the process. By implementing a web order system with proper formatting, the clerk will no longer be needed to take phone calls or respond to emails therefore the clerk can focus on other tasks they require to do. In addition, the clerk has many tasks which could be replaced by system integration of delivery-tracking system and order event data. The integration of these two systems will reduce the clerk's workload by not having to update the status of the mattress and looking for data mismatches. By implementing the Six Sigma into SAM business practices will hugely improve the efficiency of processes and could result in an increase in sales, support, and happiness with customers and employees (Gwen and Ravi, 1994). Therefore, businesses will more likely achieve their business goals.

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