

## Criterion A: Planning

### Description of the scenario

PT. X is an adhesive tape company established in 2017 and is located at Dadap, Kosambi Permai, Tangerang. For the past 5 years, Mr. X, the CEO has been manually recording the revenue and stocks separately in two notebooks.

On 23 April 2022, I interviewed Mr. X to realize how inefficient his method is. He shared to me that every time they sell a product, his employees would need to locate the specific page of the stock book that stores the product details, write the name of the customer, and deduct the quantity. Next, after the payment is completed, the workers would also have to note down the total revenue obtained from that specific order. At the end of every month, Mr. X will recheck the stock and revenue book via comparing them with the bills that were printed within that month. The most complicated scenario is discounted items because they are more prone to calculation errors. In conclusion, Mr. X's system is inefficient and time consuming, unorganized, not secure, and is prone to human errors.

Therefore, Mr. X requested a program to directly print invoices while securely and efficiently recording stocks and revenues. Additionally, I proposed to him a Customer Relationship Management (CRM) program to structure the salesperson target customers as well as PT. X vision and mission. Therefore, these plans will minimize PT. X losses and keep track of the data recorded so that it will be more secure and organized.

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## Rationale for the proposed product

The purpose of proposing this solution is to minimize the weakness of the current system. After understanding the client's requirements, I proposed the following solutions:

- Using a database to record product, stock, customer, salesperson, invoice transactions, and commission details
- Validate, input, update, and delete data of products, customers, and salesperson
- Automated numbering and calculation of purchase cost, invoice transactions and salesperson commission to reduce human errors
- During the process of creating invoices, stock availability has to be maintained along with the account limit for each customer
- Create daily report, monthly report, and list of invoices that are due today
- Mr. X should be able to track invoices by typing any of the attributes them
- Sorting the top 5 salesperson based on their sales revenue within the selected time period
- Using a web-based program (use VB.Net as front end, MSAccess as back end)
- Using a window-based program (use VB 6.0 as front end, MSAccess as back end)

After explaining the advantages and disadvantages, Mr. X selected the web-based program since it is available across every device connected within the internet. With this, it will be easier for him to update and check the program anywhere and anytime. He also plans to hire an employee who has basic knowledge of computers and can operate the program. Reconsidering my client's limited knowledge about databases and computers, I decided to make my program as simple and as user friendly as possible. The database and SQL will provide complex queries and reports according to his format and also security of data.

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### Success criteria (not included in the word count)

- My product will be deemed success if it is able to fulfill the below criteria:
- Authenticate clients' identity through entering the correct username and passwords
- Making use of security questions to promote the security of the data and access rights
- Big and accessible buttons to promote user interface
- Automated numbering to enhance user interface and reduce human error
- Data entry form to insert and update products, customers, and salespersons
- Validate input data of products, customers, and salesperson
- Utilizing insert, update, and delete SQL command to operate with the database
- Maintain stock availability and customer's account limit during the transaction process
- Print invoices directly
- Automated calculation of stock purchases, invoice transactions and salesperson commissions
- Create search invoice page to enable easier retrieval of data
- Create update invoice page to update invoice status
- Creating list for daily transactions, monthly transactions, and invoices due today
- Enable client to track top 5 salesperson and top 5 products based on sales revenue within the selected time period