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**De La Salle University • College of Computer Studies**

**Problem Analysis Worksheet**

Requirements Engineering

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Section : S19A

Date of Submission : January 28, 2015

**Problem Analysis (CAI-STA Interview)**

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| **Description**  **(What’s the problem?)** | **Cause**  **(What causes the problem?)** | **Symptoms**  **(How do we know the problem exists?)** | **Impact**  **(Why is this important? What are the consequences?)** |
| The ends of warranties and contracts are difficult to keep track of. | Even though the relevant dates are present in the MS Excel files being used, MS Excel itself does not have a notification feature; the compnay needs to manually set the dates in a calendar application for her to be notified. | There are instances wherein the client overlooked contracts and end of warranties of some items and pieces of equipment | If a piece of equipment was to get damaged, and its warranty or contract weren’t renewed, then there will be complications in the repair or replacement of that piece of equipment. |
| The current approach in managing the inventory is open to inconsistencies between the different files containing data. | There is no centralized database for easy data management; instead multiple MS Excel files are used, often for the same data. Because of this, the company needs to update and check multiple files whenever the data is edited. | The need to maintain multiple files that aren’t directly connected and contain copies of the same data sometimes leads to discrepancies in this data. | If there end up being discrepancies between these files, they would be difficult to resolve and may lead to complications in handling inventory items through this data later on. |
| The items listed in the inventory are difficult to filter and sort. | The company is unable to automatically sort the items and data contained in MS Excel. | The company currently has to create a separate MS Excel file that the company manually arranged in order to view the sorted list of items. | If the company were to make a mistake in transferring, copying and rearranging data between these files (e.g. forgetting to transfer an item or accidentally overwriting an item), then this could invalidate some of that data and lead to complications later in processes involving that data. |

**Visualize the Process**

Manager

Canvases suppliers

Chooses a supplier

Records supplier’s contact details

Assigns item to project and employee

Manager

Creates purchase order

Delivers ordered item

Note: Technicians have full access to the inventory.

Double-checks added item

Adds item data to inventory

Note: Only the manager can make and view the purchase order.

Supplier

Manager

Technician

Assigns asset tag to item

Sets item status to “in use”

Sets item status to “in store”

If the item/equipment will be assigned to a project

Note: Inventory data includes warranty and/or contract start and end dates when applicable to the particular item.

Yes

No

**What’s the business goal? Why do they need software?**

The goal is to have a consistent inventory system to keep track of items, the person they are assigned to, and the project the item is being used for, as well as a system to keep track of the purchase orders and contracts related to these items in inventory. Warranty expiries and ends of contracts should also trigger notifications.

Software is needed because the current system being used is manual, which leads to more work, especially in generating reports. Also, inconsistencies arise because of the separation of the purchase manager’s system and the technician’s system. Additionally, it is currently easy to forget the ends of warranties and contracts manually.

**What characteristics should the software have?**

The software should present consistency in records and ease in creating purchase orders, adding items to inventory, and generating the necessary reports. It should have the correct information at all times, to be implemented by using a single database, and it should be easily maintainable.