

Inventory Management System for Mr. Sameer

**All the interviews are present in Appendix.
The Client is The Admin**

Criterion A : Planning

Defining the problem:

The client Mr Sameer is a businessman who runs a business of selling spare parts to tractors and other commercial vehicles. He also has a separate workshop for the servicing of commercial vehicles(See Appendix Section A.1). Mr Sameer's business is cyclic in nature i.e. his sales increase greatly during the time of cultivation because of which he faces difficulties in keeping track of the inventory available for sale.(See Appendix Section A.1)

Currently Mr Sameer uses registers for keeping track of his inventory wherein he has different registers for different parts of the business (See Appendix Section A.1). The manual system employed by him is inadequate and time consuming. He has to waste a lot of his time in reading through the registers to see which parts are low in quantity and need to be ordered. He also loses track of when the vehicles need to be serviced and be delivered to the customers which leads to customer dissatisfaction and causes loss to his business(See Appendix Section A.1). Mr Sameer is also planning to expand his business which will make the manual system even more inefficient for him to use. Therefore, to help him solve his problem of ineffective inventory management he is thinking to implement an electronic computer application for inventory management(See Appendix Section A.1).

Word Count- 201 words

Rationale for the proposed solution:

After my interview with the client, I learnt that the client currently uses registers to store data regarding the different operations and functions of his business (See Appendix Section A.1).

The first application I thought of using database software (like MS Access), although MS Access is suitable for inventory management, it has certain limitations. MS Access is not system independent. Access software is generally need to be bought whereas MySQL is an open source so

it can be used for free. Access doesn't allow the user to provide different access rights, which is a requirement for the client hence it is not very suitable for him(**See Appendix Section A.2**).

Hence, to make an effective and user-friendly software to match Mr. Sameer's requirements, I decided to propose MySQL as the RDBMS, which I believed was a suitable solution for him. I thought that a database would allow the data to be easily categorised according to the needs of my client. MySQL is a very stable application to use and it allows the user to give different access rights.

As a front-end, NetBeans is to be used as the IDE in which Java will be the language used. As the program is to require a GUI. NetBeans' simple "drag-and-drop" GUI design will be beneficial for the product.

In addition, the language Java was chosen based on the following:

Java is object oriented - provides ability to write modular and re-usable code.

Can run easily on multiple systems

I believe, this system would be a great support tool for the client as it will allow him to manage all of the equipment effectively, while having the security of his account as different access rights can be given. This will allow him to be efficient at handling customer requests, lend out service vehicle parts and vehicles faster with limited manual error.

Word Count- 305 words

Success Criteria:

Client Interface:

1. There will be a layer of security for the client- there will be a login form asking for username and password, and will redirect the user to the correct main menu depending upon the level of Access of each user if the correct username and password are entered.
2. Client will have the ability to change and / or delete user names and passwords.
3. After Logging in as admin, the admin will see 8 forms - Parts, Suppliers, Customer Vehicle Servicing, Orders, Technicians, Users, Search and Bill.
4. The client would be able to add an item in all of the forms by clicking on 'Add' button. The client will be able to edit information in all of the forms by clicking on 'Edit' button. The client would be able to delete an item from all of the forms by clicking on 'Delete' button.
5. A dialogue box appears in all the forms for confirmation of deleting data.

6. The client will be able to view data in all the forms in tables present in all the forms.
7. The client will be able to view the orders that have been completed.
8. The client will be able to see the vehicles that have been serviced.
9. ID field should get automatically incremented.
10. Stock report should be generated in Parts Form.

Employee Interface:

11. The employee will only be able to access the data from the 5 forms, the employee won't be able to edit or delete the data.