**Chapter one**

**Introduction**

The era that we are living is an information age, it is said. The world is becoming a small village due to the telecommunication advancement on it. Today all the developed and the developing countries on the world are inter-communicated each other through this advanced technology, in order to exchange and share their political, social and economical aspect of issues. Thus, since Ethiopia is one of the rapidly showing economical growth countries in the world, automation information system also a means of enhancing it’s for more developmental growth. Therefore, Ethiopia intensively is using automated support technology in different sectors, institutions, universities, factories, marketing purposes, in inventory system and soon. Sales and Inventory management system is the main office for conducting activity related to purchases of materials from the customers.

Our project is aimed at creating an online Sales and Inventory System for a departmental store. This system can be used to store the details of the inventory, update the inventory based on the sale details, produce receipts for sales, generate sales and inventory reports periodically etc. This is one integrated system that contains both the user component (used by salespersons, sales managers, inventory managers, store manager) and the admin component (used by the administrators for performing admin level functions such as adding new items to the inventory, changing the price of an item etc).

Using this software we can reduce cost for warehousing, order fulfillment, and material handling while improving customer service.

You can significantly improve inventory turns, optimizing the flow of goods, and shorten routes within your warehouse or distribution center. Additional benefits of sales and inventory include improved cash flow, visibility, and decision making. This software is user friendly and hence easy to use.

1.1 Overview/ Background

ELFORA established in 1960 by Italian government. in that time the company facilitates meet products for the society. in this time elfora governs under the company called midroc.

organization structur

**1.2 Statement of the problem**

In the current system there are more problem related to buying and selling products. When the sales purchase the product he should appear on the market physically. The selling product process also has the same process with the buying process.

So this process has the following disadvantages

* Slow data processing
* Lots of paper work
* Lack of efficiency
* Lack of accuracy
* Time consuming
* weak data retrieval
* Manual data records
* Extravagancy of resource
* Not user friendly environment

**1.3 Objective of the Project**

**1.3.1 .General objective**

The main objective of this project is to develop online sales and inventory system for kombolcha elfora.

**1.3.2 .Specific objectives**

The specific objective of this project is:

* Facilitate communication and Customers Management
* Targeted automation/integration
* Billing
* Inventory Management
* Invoice Generation
* Low Stock Indicator/ Facilitate access to business data and reporting
* Making the business operation efficient
* Making the management accurate
* Making a decision depending on only on data
* Advance Records Searching
* Advance Reports
* Establish and improve analytics
* In order to Improve access to the business systems
* The main objective of this system is to keep records of the complete inventory.
* It support for inventory management helps you record and track materials on the basis of both quantity and value. It improves cash flow, visibility, and optimizes your warehouse resources

**1.4 Scope and limitation of the Project**

The scope of our project is to provide user efficient working system and more output can be generated through this. The system provides user friendly interface resulting in knowing each and every usability features of the system.

This system helps in tracking records so that past records can be verified through them and one can make decisions based on the past records/data mining. This system completes the work in a very less time resulting less time consumption and high level of efficiency.

This system is developed in such a way that even an inexperienced user can also operate the system easily. The calculations are made very quickly and the records are directly saved in to the databases and the databases can be maintained for a longer period of time highly reduces error prone while transactions are operating. Each record can be retrieved and can be verified for the future transactions.

This system helps also to calculate the discount in present that has given to the customer and tax and also provide the cost of sells material automatically if discounts are available.

This system helps to generate a report add and view material, add and view customer and also can edit, delete, the file in the database.

This system helps to know sales cost when someone wants to get specific product as well as total cost of such item category.

Also this system provides high level of security for data leaking as only admin people can access the database no changes can be made in it until it verifies the user login id and password.

And also there was some limitations such as

* Lack of requirement satisfaction for the development of the system
* Not being able to finish the system within the specified time frame

Even though these risks are possibilities we (the group) will do everything in our power to successes our project. and we are working hard to make the system better like having more feature could make the system better.

1.5 Methodology

1.5.1 Data collection

In order to find the necessary information about our project, we use observation, questioners and interview in primary data collection method. Because, primary data collection is very important information for this project.

* **Direct Observation**

By watching what people do or by obtaining relatively objective measures of how people behave in work situation, the team can have first-hand and accurate appreciation of what they really doing or how they are doing it.

* **Interview Technique**

We collected the necessary information by using interviewing the employee of the office

* **Document review** ( going through documents to find out about similar systems, reading papers or books written about S.I.S that will aid the team to have deeper knowledge about S.I.S and how they have changed through the time)
  + 1. System Analysis and design

Object oriented analysis (OOA): this is software engineering development tools like, use case, sequence, class and activity diagram to show sequence of processes inside our system.

Object-oriented analysis and design (OOAD) is the methodology for developing high-quality object-oriented systems. It defines the design requirements and overall architecture of a system, and is focused on describing what the system should do in terms of solve the existing system problem. It translates system architecture into programming constructs (such as interfaces, classes, and method descriptions). It implements these programming constructs. It has the ability of object decomposition, breaking the complex software system down into its various objects, combining the data and the functions that operate on the data into a single unit or object. We tried to discover all written documents about the organizational areas relevant to the system.

Such as:-

* Mission, Vision and Purpose of the company.

1.5.3 System development/implementation

We use SQL because it stores more data.

Advantages to develop database for sales and inventory system

1. To store large data in one table.

2. To retrieve the data when need by the user and manager.

3. Accuracy of data being stored.

4. Used to query, report etc.

Programming languages

* Front –End: (PHP)

Database tool

* Back-End: MYSQL

For writing documentation

* Microsoft word 2010

For Presentation

* Microsoft PowerPoint 2010

For drawing UML diagrams

* E-draw Max7.2, star UML

1.6 Significance and Beneficiaries of the project

**Significance of the system**

The system has been many significant at finale stage. Among these:-

* The system will be help announcement of new technology.
* The system will be assure files/data/ security from risk.
* The system will be remove problem of work load.
* The system will be show correct use of database system**.**

**Tangible Benefits**

These benefits are derived from the development of the system for the process and these benefits are measured in terms of birr. The following are the benefits that the process will get from the new system:-

* Error reduction
* Increased speed of activities
* Cost reduction and avoidance
* Availability of better information
* Increased flexibility
* Improved management
* Minimizing work load of employees

1.7 Feasibility Analysis

Our project have a feasibility study for the complete understandability of the project. We will consider three types of feasibility study they are technical feasibility, operational feasibility, and economic feasibility

**Technical feasibility**

This new system requires 4 fully trained people to run the system perfectly. 1 admin person to maintain database n other 3 to handle the system interface and order making things. With the above details our system is technically feasible.

**Operational feasibility**

The new solution is feasible in all sense but operationally it is not. The new system demands the expulsion of at least 15 people from the company. It creates an environment of joblessness and fear among the employees. It can lead to an indefinite strike in the company also. So the management must take corrective actions prior in advance in order to start the further proceedings.

**Economic feasibility**

With the manual system the operating cost of the system by reducing the number of employee’s. salary, stationary, building rent, electricity, water, telephone etc. But with the new system this reoccurring cost comes out to be about 2/3 percent. Hence the new system is economically feasible.

**Legal Feasibility**

This is the need to gain an understanding of any potential or legal ramification due to the construction of system. (Hoffer 2000) The System is expected not to violate any regulations, rules of the government or/and the company. We are only selecting services of the company which are legally feasible. But, since the team is using Microsoft’s products such as Microsoft word, without giving credit to Microsoft .This is a common situation in Ethiopia, most people use and copy software illegally that is without buying and getting license. In this case the project team is committing software privacy. Thus the project is not legally feasible

* 1. **Task breakdown and deliverables**

To make our project better and successful we should divided same tasks and deliverables in each phase but instead as we have small member we decide to work together in all phases.

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| Stud name | proposal | analysis | design | implementation |
| Arefaine mebrahtu |  |  |  |  |
| Ashenafi ali |  |  |  |  |
| Asamnew abebe |  |  |  |  |

* 1. **Communication plan**

Communication is the most important thing for a project like this so we most of the time discus about our project and search so many references to our problems and the most important thing is we meet our advisor like three times per week.

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| Advisor |  |  |  |  |  |  |  |
| Arefaine |  |  |  |  |  |  |  |
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* 1. Project Schedule

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| **Activities over the months** | | | | | |
| No | November  **Proposal** | January | Marché | June | June |
| 1 | 25 | **Analysis phase** |  |  |  |
| 2 |  |  |  |  |  |
| 3 |  |  | **Design phase** |  |  |
| 4 |  |  | **Implementation** |  | **Testing** |
| 5 |  |  |  |  |  |