COST ACCOUNTING SYSTEM

FOR

TAMILNADU CEMENT CORPORATION LTD., ARIYALUR.

PROJECT REPORT

Submitted in partial fulfillment of the requirements for the award of the degree

of

M.Sc Applied Science Software Engineering,

Of Bharathiar University,

Coimbatore.

P-1236

Submitted By

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KUMARAGURU COLLEGE OF TECHNOLOGY

COIMBATORE – 641 006

SEPTEMBER - 2004

Certificates

KUMARAGURU COLLEGE OF TECHNOLOGY

(Affiliated to Bharathiar University)

Department of Computer science and Engineering

Coimbatore – 641 006

CERTIFICATE

This is to certify that the project work entitled

COST ACCOUNTING SYSTEM

Done By

Mohan.v

Reg. No. 0137S0039

Submitted in partial fulfillment of the requirements for the award of the degree M.Sc Applied Science Software Engineering of Bharathiar University.

Professor and Head **Internal Guide**

Submitted for the University examination held on .....

Internal Examiner **External Examiner**

ANCEM

தமிழ்நாடு சிமெண்ட் கழகம்
(தமிழ்நாடு அரசு நிறுவனம்)
TAMILNADU CEMENTS CORPORATION LIMITED
(A Government of Tamilnadu Undertaking

அரியலூர் சிமெண்ட் ஆலை, அரியலூர்-621 729. பெரம்பலூர் மாவட்டம், தமிழ்நாடு.
Ariyalur Cement Factory, Ariyalur-621 729. Perambalur District, Tamilnadu.
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PA/Tancem/Admn/pw/752004.

Date SEP 22,2004

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Mr.V.MOHAN,pursuing M.Sc.(S.E) at KUMARAGURU COLLEGE OF TECHNOLOGY, COIMBATORE has successfully completed his project entitled "COST ACCOUNTING SYSTEM" during the month of JUNE 2004, to SEPTEMBER 2004 in our concern. During this period, we found him to be sincere and hard working.

We wish him all the best in his future endeavors.

With regards,

22/9/04

MANAGER - HUMAN RESOURCES (P&A) O/c

Declaration

DECLARATION

I hereby declare that the project entitled "**COST ACCOUNTING SYSTEM** ", for **Tamilnadu Cement Corporation Ltd,** Ariyalur submitted to **Kumaraguru College of Technology**, Coimbatore, affiliated to **Bharathiar University** as the project work of **M.Sc Applied Science Software Engineering,** is a record of original work done by me under the supervision and guidance of Mr. M.Soori ,B.E and Mr. K.R.Baskaran, B.E, M.S and this project work has not found the basis for the award of any Degree/Diploma/Associate ship/Fellowship or similar title to any candidate of any university.

Place: Coimbatore

Date: 24/9/2004

Signature of the Student

Acknowledgement

ACKNOWLEDGEMENT

To add meaning to the perception, it is my indebtedness to honor a few who had helped me in this endeavor, by placing them on record.

With profound gratitude, I am extremely thankful to Dr.K.K.PADMANABAN B.Sc. (Eng), M.Tech, Ph.D., Principal, Kumaraguru College of Technology, Coimbatore for providing me an opportunity to undergo the M.Sc APPLIED SCIENCE (SOFTWARE ENGINEERING) course and thereby this project work also.

I extend my heartfelt thanks to my Computer Science & Engineering Department head, Prof.Dr.S.THANGASAMY B.E (Hons), Ph.D., for his kind advice and encouragement to complete this project successfully.

It's my privilege to express my deep sense of gratitude and profound thanks to Mr.M.Soori, BE System Designer,Tamilnadu Cement Corporation Ltd., Ariyalur for having allowed me to do my project work in her esteemed team and for helping me in all means in successful completion of this project work.

Gratitude will find least meaning without thanking my Project coordinator Mr.K.R.BASKARAN, B.E, M.S., Assistant Professor, Dept of Information Technology and my guide Ms.P.Aruna, M.C.A, Lecturer, Dept of Computer Science & Engineering for the valuable guidance and support throughout my project.

My gratitude is due to all staff members of CSE department, my parents and all my friends for their moral support and encouragement for successful completion of my project.

Synopsis

SYNOPSIS

The project deals with Computerized System of cost accounting for cement production. It is a real time project for TANCEM. In that computerized system it is easy to make process the details of each and every department.

It also produces varies types of report like daily quarrying, crushing, raw meal, clinkerisation, cement grinding, packaging, administrative overheads, factory overheads & sales report, and yearly maintain the total cost of production report. Its special features are been highlighted in the topic need for proposed system.

In order to provide faster and easy access for the storage, retrieval of huge volume of data and to generate various kinds of reports to meet their requirements is the need to computerize the system. The reports generated are supplied to various departments to know their status. With the reports generated, it is possible to understand the financial status. The company can also make future plans with the help of reports.

The system is implemented in .NET platform. The language used to develop is VB.NET and ADO.NET. SQL SERVER 2000 is used for the backend.

This complete system has been implemented in a user-friendly manner, thus keeping the need of the user in mind. Data validation procedures have been included to void the user entering irrelevant data. This project provides a more reliable, flexible and accurate and fast solution for various activities.

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INTRODUCTION

1.0 INTRODUCTION

1.1 PROJECT OVERVIEW

The Project entitled "COST ACCOUNTING SYSTEM" is developed for an application to maintain the record keeping in accounts details, in the cement factory.

This project has been developed with VB.NET as its front end and SQL SERVER as its back end and it has been sub divided into 6 modules. They are:

1. Master
2. Product Expenses
3. Administration Expenses
4. Miscellaneous Expenses
5. Cost Accounting
6. Reports

1. MASTER

This Master module consists the information's about Employee details, Number of Departments in the factory and details about the Machineries. The administrator of the system can only modify the details of the above information.

The password security has been provided for administrator. This module is linked with miscellaneous expenses module for entry of data about the expenses information.

2. PRODUCT EXPENSES

This module is used for calculating Limestone quarrying cost, Limestone Transport cost, limestone crushing cost, Raw meal Grinding cost, Clinkerisation cost, Cement Grinding cost, cement Packing cost, and Total

cost of realization of total cost of sale. Here we can calculate the profit and loss for Cost per Metric Tone.

3. ADMINISTRATION EXPENSES

This module consisting the information about the administration expenses such as Administrator overhead expenses, Factor Overhead expenses, selling overhead expenses. The selling overhead includes expenses for advertisement for product, Representative wages, etc.

4. MISCELLANEOUS EXPENSES

These Miscellaneous expenses are Oil-Lubricant (in liters), Repair maintenance, Labors charge, Transportation charge, purchasing charge etc.

This project is used as record keeping for yearly cost. But this data is to be maintained as daily entry.

5. COST ACCOUNT

This cost accounting is the main module in this project. Because based on the result of the module the reports has been created. Depends upon this module the profit has been estimated. That means the total cost of realization is to determine by the profit and loss for Cost per Metric Tone.

6. REPORTS

Reports are the feedback and output for every project. In this project reports are created for every transaction. Daily report, Monthly and Yearly report.

Based on the yearly report the profit has been calculated in that year by the administrator.

1.2 ORGANIZATION PROFILE

TAMILNADU CEMENT CORPORATION LTD., ARIYALUR WORKS: ARIYALUR.

Tamilnadu cements corporation Ltd.,(TANCEM) was established in Feb.1976 as a wholly owned subsidiary of TIDCO. Further, all the shares were transferred to Government of Tamilnadu and now functioning under the control of Industries Department. The chairman cum Managing Director an IAS official heads the Corporation.

TANCEM is owning two cement units, one at Alangulam and another one at Ariyalur. In addition to cement Units, TANCEM is having one asbestos sheet unit at Alangulam, Abestos pressure pipe Factory at Mayanur, in Karur Dist, and Stoneware pipe Unit at viridhachalam.

TANCEM'S REGD. Office is functioning at 735 Anna salai, chennai-2. TANCEM's Ariyalur Unit was commissioned on 1st Aug.1979 and commercial reduction commenced on 9th September, 1979, the Ariyalur unit is having two kills of 750 TPD capacity each and producing clinker of 1500 Metric tones per day in to the cement Brand name is ARASU CEMENT.

Now, TANCEM, Ariyalur Unit has taken steps to install ESP's at a total cost of Rs.3.00 Crores for controlling the dust Pollution as per the norms of Tamilnadu Pollution Control Board.

The major plant and machineries are of polysius design(west Germany) supplied by M/s.Walchandnagar Industries Ltd., pune.

The plant is designed for adopting dry process technology with four-stage suspension preheated DOPOL system and this was modern Dry process plant in the continent of Asia during 1979.

SYSTEM AND STUDY ANALYSIS

2.0 SYSTEM STUDY AND ANALYSIS

2.1 EXISTING SYSTEM

The Existing system mainly depend on the manual work, which leads to lot of disadvantages which are all been shown below .The existing system is not that exactly match the whole cost accounting system. Here the management is unable to get hold the various report and other documents on time. Manual work is a tedious process. In the existing system **miscellaneous expenses and overhead expenses** is not that much considered, due to that improper documents. we tends to find a lot of loss in concurrency and so on. In this existing one we can find drop in efficiency that leads to the drop in the entire system .All these drawbacks have been rectified in the proposed system. In this existing system reports has been generated for annual cost of accounting. Some of the major drawbacks of the existing system is given below and they are

- The management is unable to get hold of the various reports and other documents on time
- The minimum importance is given over the Repairs and maintenance cost for management.
- In the Transport expenses cost the proper database is not maintained such as loading charges and total number of tones etc.
- Most of the processing is made manually rather than the computerizing
- Data's are not that much considered, therefore the database usage is minimum while considering the existing one.

These are few main drawbacks we face in the existing system, which leads to the arrival of the proposed one that covers the entire drawbacks.

2.2 PROPOSED SYSTEM

The proposed system involves the conversion of the manual work into computerized form. In our proposed system we have given our concentration mainly over the database development, since only by giving the massive concentration on the details only we attain the maximum security in attaining the concurrency on the system. Here the manual work is been totally reduced so that the renovation is very much possible here.

Some features of the proposed system are:

- Oil and Lubricant purchase cost has been maintained.
- Electricity expenses have been along with its previous and current reading.
- Repairs and maintenance cost has maintained with its machinery number.
- Quarrying department's expenses maintained with labor cost.
- Mainly total cost accounting is maintained per tone.
- Especially in the proposed system cost of accounting is performed monthly and as well as yearly wise.

USER CHARACTERISTICS

As for as the total cost maintains is concerned, the users has been created in various categories. Mainly the users has been differentiated as two types of categories. The first user is the administrator who responsible for keeping in the details and maintains whole system administration and as well as database system. For each and every department the administrator has created the sub administrator. The sub administrator has privileges to maintain the particular departments database only. But the sub administrator can't modify any database with out the knowledge of the administrator.

PROGRAMMING ENVIRONMENT

3.0 PROGRAMMING ENVIRONMENT

3.1. HARDWARE CONFIGURATION

SYSTEM	: Pentium III
PROCESSOR	: 500 Mhz
MONITOR	: 14" VGA Color Monitor
RAM	: 128MB (minimum)
HARDDISK CAPACITY	: 8.4 GB Seagate IDE Hard disk

3.2. DESCRIPTION OF SOFTWARE AND TOOLS USED

Platform	: WINDOWS 2000 PROFESSIONAL
Server	: IIS (Internet Information Server)
Platform	: .Net Platform
Language	: VB.Net & ADO.Net
Database	: SQL Server 2000.

PLATFORM SELECTION:

.NET

.NET is the Microsoft solution for Web services, the next generation of software that connects our world of information, devices, and people in a unified, personalized way. .NET technology enables the creation and use of XML-based applications, processes, and websites as services that share and combine information and functionality with each other by design, on any platform or smart device, to provide tailored solutions for organizations and individual people. .NET is a comprehensive family of products, built on industry and Internet standards, that provide for each aspect of developing (tools), managing (servers), using (building block services and smart clients) and experiencing (rich user experiences) Web services. .NET will become part of the Microsoft applications, tools, and servers we already use today—as well as new products that extend Web service capabilities to all of our business needs.

.NET FRAMEWORK

.NET is the framework for which we develop applications. It sits in between our application programs and operating system. Applications developed for .NET run inside .NET and are controlled by .NET. It supports

both Windows and web applications The Microsoft® .NET Framework is an important new component of the Microsoft Windows® family of operating systems. It is the foundation of the next generation of Windows-based applications that are easier to build, deploy, and integrate with other networked systems. Most consumers will never notice that the .NET Framework is running on their Pocket PC, smart phone, or desktop computer. But they may appreciate the reliability, ease of use, and ability to connect to other systems that the .NET Framework helps bring to computers. The .NET Framework helps software developers and systems administrators more easily build and maintain systems with improvements toward performance, security, and reliability.

.NET Framework offer the following benefits to developers:

- Making it easier for them to reuse existing code.
- Enabling them to more easily integrate components written in any of the more than 20 supported programming languages.
- Helping them more easily build software for a wide range of devices using same skills and tools.
- Best, fastest, and least expensive way to build Web services
- Programming model designed from the ground up for Web services
- High productivity, multi-language environment for building and running Web services
- Scalable, high-performance execution, with the protection of industry-leading technologies
- Multi-device support. Through Visual Studio .NET and the .NET Compact Framework, developers can use existing skills to create solutions for a wide range of devices.
- When will Web services be available for .NET-connected software?

FEATURES OF .NET

The following are major features of .NET. We will use these features throughout out journey. Here is just a brief introduction to all key features of .NET.

Assemblies: An assembly is either a .DLL or .EXE that forms a part of an application. It contains MSIL code that is executed by CLR. The following are other important points related to an assembly: Assemblies contain interfaces and classes. They may also contain other resources such as bitmaps, file etc. Every assembly contains assembly metadata, which contains information about assembly. CLR uses this information at the time of executing assembly. Assemblies may be either private, which are used only by the application to which they belong or Global assemblies, which are used by any application in the system. Two assemblies of the same name but with different versions can run side-by-side allowing applications that depend on a specific version to use assembly of that version.

The four parts of an assembly are:

- Assembly Manifest - Contains name, version, culture, and information about referenced assemblies.
- Type metadata - Contains information about types defined in the assembly.
- MSIL – MSIL code.
- Resources - Files such as BMP or JPG file or any other files required by application.

Common Type System: CTS specifies the rules related to data types that languages must follow. As programs written in all languages are ultimately converted to MSIL, data types in all languages must be convertible to certain

standard data types. CTS is a part of cross-language integration, which allows classes written in one language to be used and extended by another language.

Cross-language Interoperability: .NET provides support for language interoperability. However, it doesn't mean every program written in a language can be used by another language. To enable a program to be used with other languages, it must be created by following a set of rules called Cross Language Specifications (CLS).

Cross-language inheritance is the ability to create a class in C# from a class created in VB.NET.

When an Exception is raised by a program written in C#, the exception can be handled by VB.NET. This kind of exception handling is called cross-language exception handling.

The following are different types of applications that can be developed in .NET:

- Windows applications – typical Client/Server applications.
- Web applications – Web sites and Intranet applications.
- Web services – Programs that are accessible from anywhere using universal protocols like HTTP and SOAP.
- Console Applications – Simple console based applications without any GUI. Run from command prompt. Best suited to learn fundamentals and also for applications such as server sockets.
- Mobile Applications – Contain web pages that run in mobile devices such as PDAs (Personal Digital Assistant) and Cell phones.
- Though .NET supports many languages, I believe only two languages will dominate programming in .NET: VB.NET and C#.
- VB.NET is the successor to VB 6.0, but language wise, it was modified substantially as it became complete OOPL – no more "object-based language."

LANGUAGE SELECTION:

VISUAL BASIC .NET

Visual Basic .NET is the most widely used programming language for creating Windows applications. From Visual Basic 1.0, which radically simplified writing Windows applications, to Visual Basic 4.0, which helped establish COM2 as the standard Windows object architecture, the Visual Basic language has been a cornerstone of the Windows platform for nearly a decade.

Now, as applications are evolving from a standalone executable sitting on a user's hard drive to a distributed application delivered by a Web server across the Internet, Microsoft is expanding away from simply providing an operating system: Microsoft is providing XML Web services as well. A key part of Microsoft's thrust into this new XML Web services space is the .NET Framework, designed from the ground up to allow developers to write and deploy complex Web applications easily.

Visual Basic .NET is a pillar of the .NET Framework, and yet another step forward in evolution of the language. It is a high-level programming language for the .NET Framework, and provides the easiest point of entry to the Microsoft .NET platform.

It is able to get a good grounding in the fundamentals of programming, including using variables, control structures and loops. Then, also to learn tricks programming pros rely on to save time. It is able to take advantage of the large function library included with all copies of Visual Basic .NET, and we have even learned how to write our own functions. It is also be able to use the large and varied library of buttons, menus, fields, and other Windows controls, and we'll be able to write programs that access files and handle errors. Event-driven and object-oriented programming concepts that will helps to master both Visual Basic .NET and other programming languages

SQL SERVER

- Fully supports SQL Server systems from a single provider assembly that is 100% pure managed .NET code.
- No need for MDAC or any other external software to be installed!
- Supports provider interoperability features such as escape syntax for stored procedure executions, scalar functions, and literal values. Additionally, the DataDirect data provider supports provider-neutral error objects, standardized error code mappings, and common ways to specify arrays of parameters for use.
- Supports the ability to execute a single SQL statement using multiple rows of values through the use of parameter arrays.

NAMESPACES:

Namespaces organize the objects defined in an assembly. Assemblies can contain multiple namespaces, which can in turn contain other namespaces. Namespaces prevent ambiguity and simplify references when using large groups of objects such as class libraries.

MICROSOFT SQL SERVER 2000

Microsoft SQL Server is a very powerful relational database. SQL is a widely accepted industry standard for defining, changing and managing data. The combination of SQL Server and Internet Information Server provides the framework to connect the relational database to the Internet while using web browsers to display data.

SQL Server 2000 supports having a wide range of users access it at the same time. An instance of SQL Server 2000 includes the files that make up a set of databases and a copy of the DBMS software. Applications running on separate computers use a SQL Server 2000 communications component to transmit commands over a network to the SQL Server 2000 instance. When an application connects to an instance of SQL Server 2000, it can reference any of the databases in that instance that the user is authorized to access. The communication component also allows communication between an instance of SQL Server 2000 and an application running on the same computer. We can run multiple instances of SQL Server 2000 on a single computer.

SQL Server 2000 is designed to support the traffic of the largest Web sites or enterprise data processing systems. Instances of SQL Server 2000 running on large, multiprocessor servers are capable of supporting connections to thousands of users at the same time. The data in SQL Server tables can be partitioned across multiple servers, so that several multiprocessor computers can cooperate to support the database processing requirements of extremely large systems. These groups of database servers are called federations.

Although SQL Server 2000 is designed to work as the data storage engine for thousands of concurrent users who connect over a network, it is also capable of working as a stand-alone database directly on the same computer as an application. The scalability and ease-of-use features of SQL Server 2000 allow it to work efficiently on a single computer without

consuming too many resources or requiring administrative work by the stand-alone user. The same features allow SQL Server 2000 to dynamically acquire the resources required to support thousands of users, while minimizing database administration and tuning. The SQL Server 2000 relational database engine dynamically tunes itself to acquire or free the appropriate computer resources required to support a varying load of users accessing an instance of SQL Server 2000 at any specific time. The SQL Server 2000 relational database engine has features to prevent the logical problems that occur if a user tries to read or modify data currently used by others.

FEATURES OF SQL SERVER 2000

- INTERNET INTEGRATION:

The SQL Server 2000 database engine includes integrated XML support. It also has the scalability, availability, and security features required to operate as the data storage component of the largest Web sites. The SQL Server 2000 programming model is integrated with the Windows DNA architecture for developing Web applications, and SQL Server 2000 supports features such as English Query and the Microsoft Search Service to incorporate user-friendly queries and powerful search capabilities in Web applications.

- SCALABILITY AND AVAILABILITY:

The same database engine can be used across platforms ranging from laptop computers running Microsoft Windows® 98 through large, multiprocessor servers running Microsoft Windows 2000 Data Center Edition. SQL Server 2000 Enterprise Edition supports features such as federated servers, indexed views, and large memory support that allow it to scale to the performance levels required by the largest Web sites.

SYSTEM DESIGN

4.0 SYSTEM DESIGN AND DEVELOPMENT

4.1 INPUT DESIGN

Input design is the most integral part of any application ad this is accomplished with the help of user input screens. The input data has to be edited, validated, organized, and accepted by the system before being processed to produce the outputs.

The main objective of the input design are the following

- Produce cost effective method of input
- Achieve high level accuracy.
- To ensure that all the needed data is properly entered to the system.
- Ensure that the input is acceptable and understood by the user staff.

The inputs designed in this project are:

MASTER

The master table is the main menu which gets some essential informations from the user. They are Department details, Employee details, Machinery details. Based upon these all other operations are performed in whole project.

DEPARTMENT EXPENSES

The input given in this form are Opening stock, Clinkerised, Gypsum are given as input. Other inputs such as Oil Lubricant, Repairs and maintenance, Salary, Transport, Machinery expenses are dynamically filled at run time from miscellaneous input form which are filled in previous.

PACKAGES

In this form for each department ISI Markcharges, stitching charges, Wastages are maintained as input.

SALARY BILL

Salary amount is given as input based on the Employee name, Department name, and which machine number repaired by that Emplyee.

COST ACCOUNTING

Cost accounting is performed monthly and yearly basis. Based on the yearly wise the cost of accounting is calculated and compared with previous annual income.

The above architectural data's are entered in the above input format and these input design forms are designed in User-friendly manner.

The outputs from the system are required primarily to communicate the results of processing to the user. There are vast number of forms which are displayed to the user for every operation the user has to adding new values, modification, deletion etc.

This system helps to provide two types of outputs.

- One is document based
- Other one is report based.

All the document-based outputs can be taken through the print option of the appropriate form. This output just gives information available in the form. Also this output can be viewed either in screen or it can be taken as a hard cop. Provision is available to make the choice.

The final output is generated on the basis of the two Roles.

They are Input Role and Output Role.

INPUT ROLES

The input role is calculated based on the following

- ✓ Raw material cost
- ✓ Expenses for Every department
- ✓ Manpower
- ✓ Machinery and Repair maintenance and
- ✓ Advertisement cost for product.

OUTPUT ROLE

The output is calculated from the difference between the cost of sale and the input role (the above five elements). The amount calculated per year basis from the above two major roles are the final output which is mentioned as Cost of Accounting on that particular year.

Main use of generating output is:

- ➢ Find the Profit of that particular year.
- ➢ Comparing Profit with next and previous years.
- ➢ Decide to reduce the input raw materials which

Makes loss or out of cost.

The other type of output is report based. This is having an explicit option in the main menu through with detailed report can be arrived. This can also be viewed in the screen or can be taken as a hard copy.

4.2 DATABASE DESIGN

LOGIN

Field Name	Data Type	Width
Username	Char	10
Password	Char	10

DEPARTMENT

Field Name	Data Type	Width
Dno	Number	8
Dname	Char	10

EMPLOYEE MASTER

Field Name	Data Type	Width
Dname	Char	10
Eno	Number	6
Ename	Char	25
Design	Char	10

MACHINE

Field Name	Data Type	Width
Date	Date	8
Mno	Number	4
Dname	Char	10
Mname	Char	10
Cost	Number	10,2
Depreciation	Number	3

QUARRYING DEPARTMENT

Field Name	Data Type	Width
Date	Date	8
Opening Stock	Number	10,2
Oil	Number	10,2
Electricity	Number	10,2
R_m	Number	10,2

Salary	Number	10,2
Wastage	Number	10,2

CRUSHING

Field Name	Data Type	Width
Date	Date	8
Opening Stock	Number	10,2
Oil	Number	10,2
Electricity	Number	10,2
R_m	Number	10,2
Salary	Number	10,2

RAWMEAL GRINDING

Field Name	Data Type	Width
Date	Date	8
Opening Stock	Number	10,2
Oil	Number	10,2
Electricity	Number	10,2
R_m	Number	10,2
Salary	Number	10,2
Rawmeal	Number	10,2
Lsgrinding	Number	10,2
Flyash	Number	10,2
Slag	Number	10,2
Sand	Number	10,2

CLINKERISATION

Field Name	Data Type	Width
Date	Date	8
Opening Stock	Number	10,2
Oil	Number	10,2
Electricity	Number	10,2
R_m	Number	10,2
Salary	Number	10,2
Rawmeal	Number	10,2

CEMENT GRINDING

Field Name	Data Type	Width
Date	Date	8
Opening Stock	Number	10,2
Clinker	Number	10,2
Gypsum	Number	10,2
Slag	Number	10,2
Flyash	Number	10,2
Oil	Number	10,2
Electricity	Number	10,2
R_m	Number	10,2
Salary	Number	10,2

PACKING

Field Name	Data Type	Width
Date	Date	8
Bno	Number	4
Dname	Char	10
Bagamt	Number	10,2
ISImark	Number	10,2
Stitching	Number	10,2
Wastage	Number	10,2

OIL AND LUBRICANT

Field Name	Data Type	Width
Date	Date	8
Bno	Number	4
Comname	Char	10
Dname	Char	10
Oiltype	Char	10
Qty	Number	5
Amount	Number	10

REPAIRS AND MAINTENANCE EXPENSES

Field Name	Data Type	Width
Date	Date	8
Bno	Number	4
Comname	Char	10
Dname	Char	10
Mno	Number	4
Spares	Number	10,2
Labor	Number	10,2

SALARY EXPENSES

Field Name	Data Type	Width
Date	Date	8
Bno	Number	4
Ename	Char	25
Dname	Char	10
Salary	Number	10,2
Ot	Number	10,2

ELECTRICITY EXPENSES

Field Name	Data Type	Width
Date	Date	8
Billno	Number	4
Dname	Char	10
Pread	Number	6
Cread	Number	6
Unit	Number	6
Amount	Number	10,2

TRANSPORT

Field Name	Data Type	Width
Date	Date	8
Lno	Char	10
From	Char	25
To	Char	25
Tonnage	Number	5
Loading	Number	10,2
Rent	Number	10,2

ADMINISTRATIVE EXPENSES

Field Name	Data Type	Width
Date	Date	8
Salary	Number	10,2
Stationary	Number	10,2
R_M	Number	10,2
Travel	Number	10,2
Electricity	Number	10,2
Vehicle	Number	10,2
Advert	Number	10,2
Entertainment	Number	10,2
Tax	Number	10,2
Legal	Number	10,2

Licence	Number	10,2
Audit	Number	10,2
Miscellaneous	Number	10,2
Rent	Number	10,2

FACTORY OVERHEAD

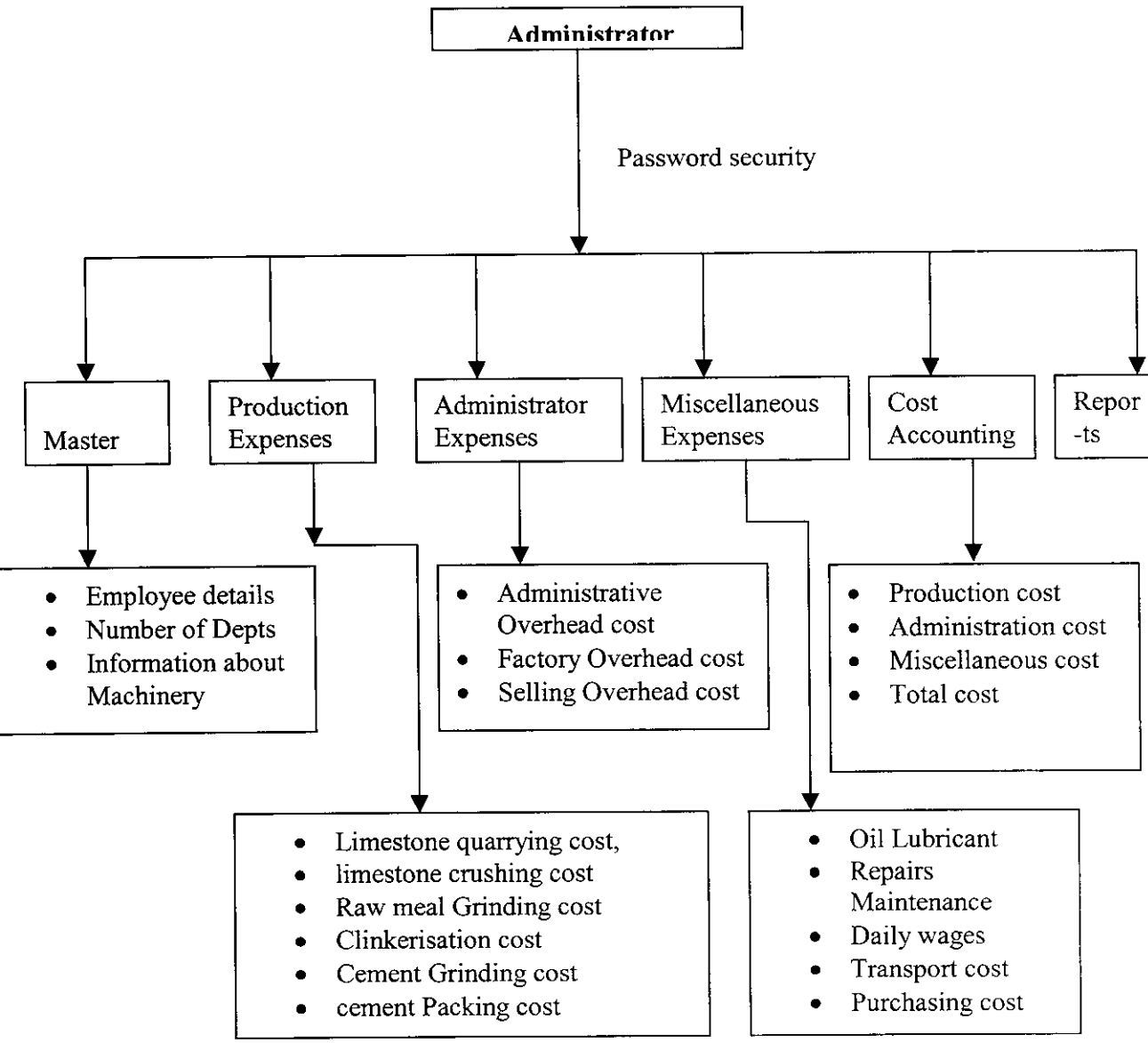
Field Name	Data Type	Width
Date	Date	8
Salary	Number	10,2
R_m	Number	10,2
Plantcharge	Number	10,2
Testingfee	Number	10,2
Insurance	Number	10,2

SELLING OVERHEAD EXPENSES

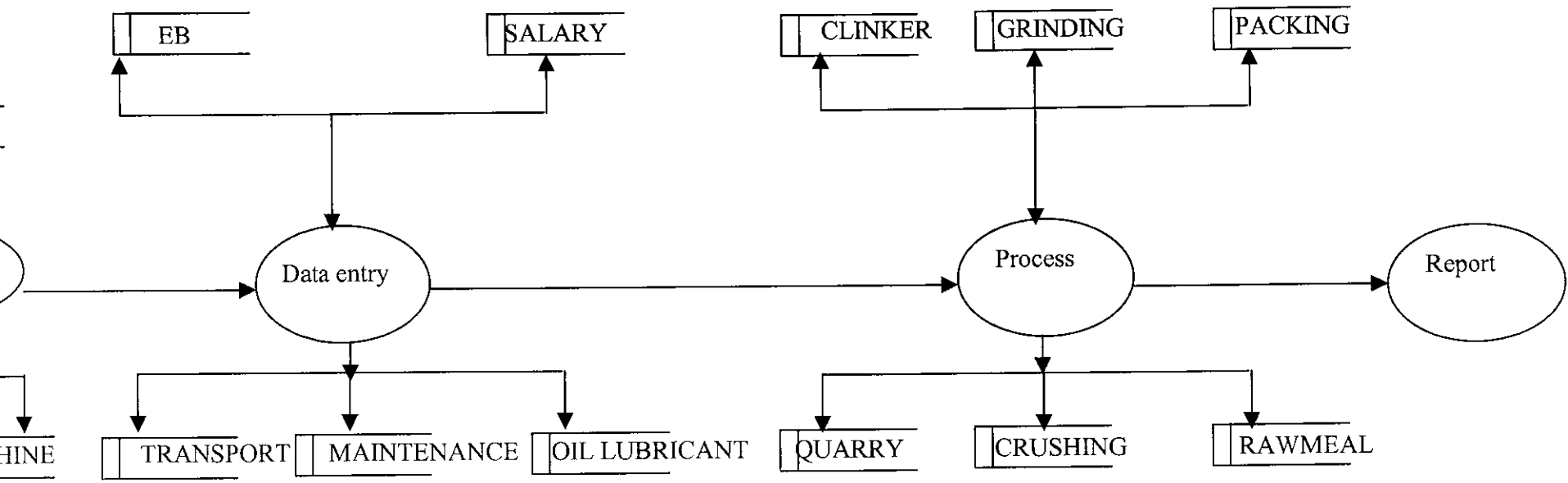
Field Name	Data Type	Width
Date	Date	8
Salary	Number	10,2
Advert	Number	10,2
Salestax	Number	10,2
Commission	Number	10,2
Expenses	Number	10,2

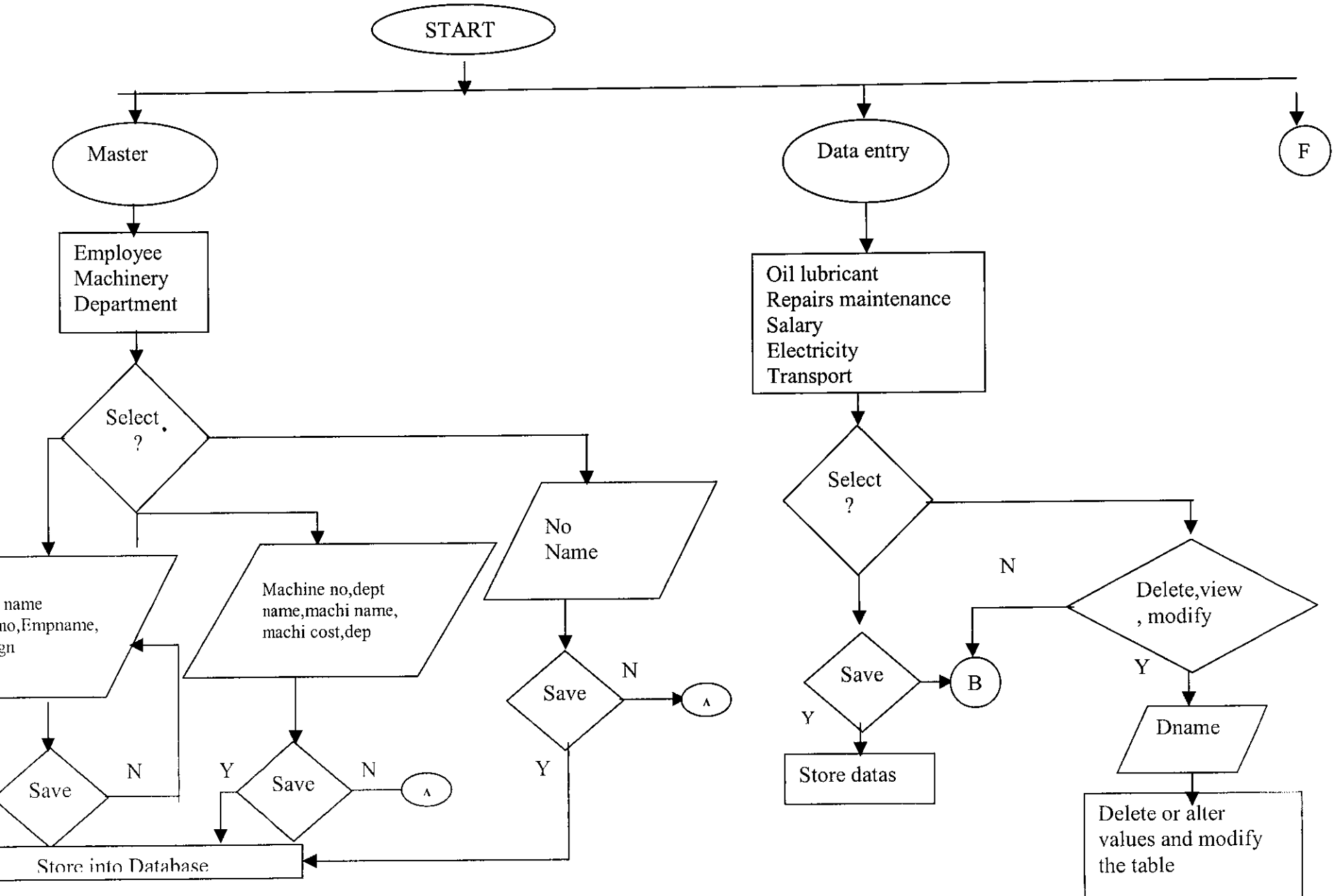
4.3 PROCESS DESIGN

System design involves translating information requirements and conceptual design into technical specification and general flow of processing.



TLOW DIAGRAM

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Employee
Machinery
Department
Oil lubricant
Repairs maintenance
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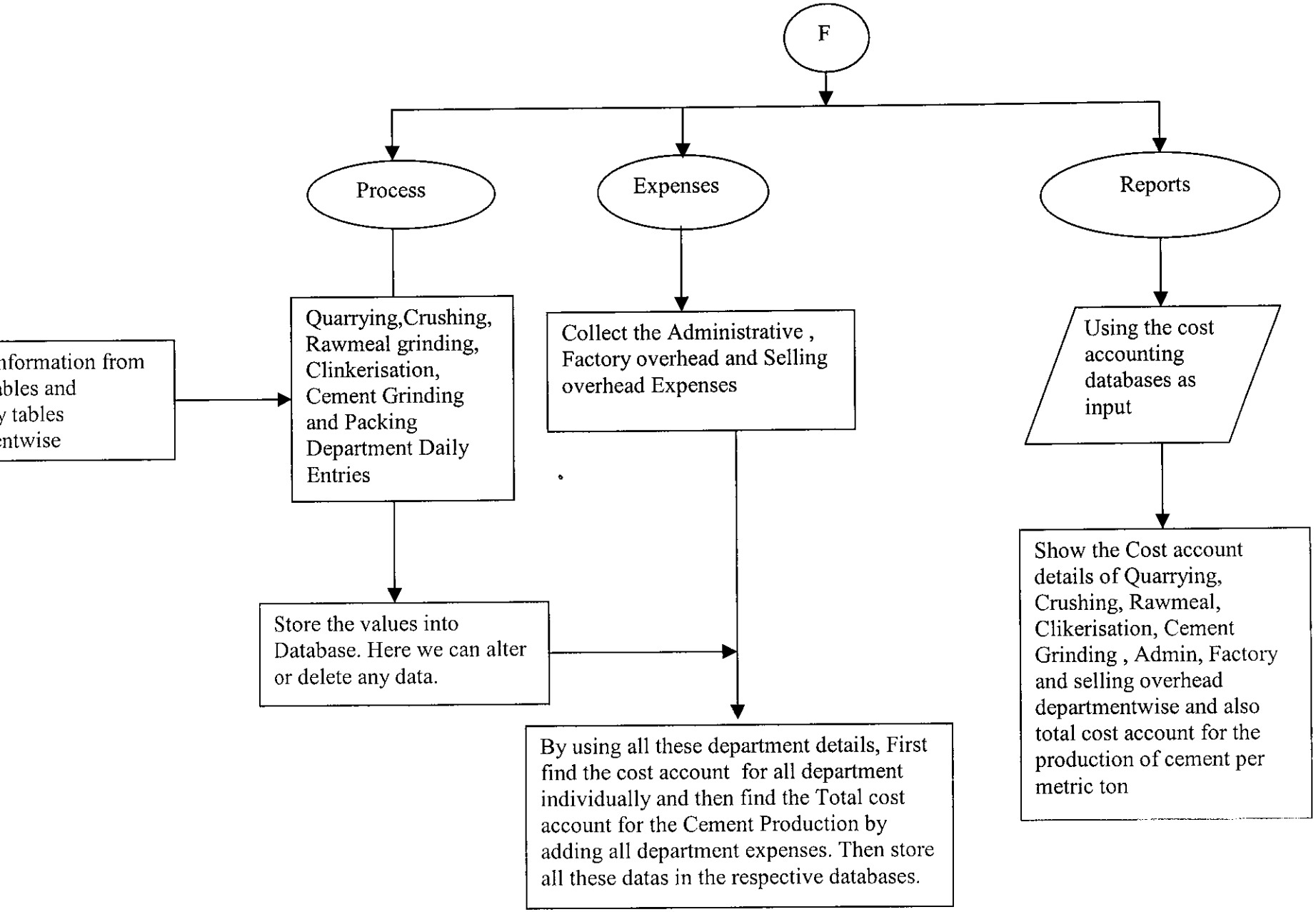
, modify
Y
Dname
Store datas
Store into Database
Delete or alter
values and modify
the table


F
Process
Expenses
Reports
nformation from
ables and
y tables
ntwise
Quarrying,Crushing, Rawmeal grinding, Clinkerisation, Cement Grinding and Packing Department Daily Entries
Collect the Administrative , Factory overhead and Selling overhead Expenses
Using the cost accounting databases as input
Store the values into Database. Here we can alter or delete any data.
Show the Cost account details of Quarrying, Crushing, Rawmeal, Clikerisation, Cement Grinding , Admin, Factory and selling overhead departmentwise and also total cost account for the production of cement per metric ton
By using all these department details, First find the cost account for all department individually and then find the Total cost account for the Cement Production by adding all department expenses. Then store all these datas in the respective databases.

SYSTEM IMPLEMENTATION AND TESTING

5. SYSTEM TESTING AND IMPLEMENTATION

5.1. SYSTEM TESTING

Implementation is the stage where the developed system is worked out practically. The implementation stage is carefully planned and controlled in order o reduce the confusion and chaos.

The implementation process includes the following steps

- System Testing
- Backup and Recovery
- Security

SYSTEM TESTING

Testing is the major quality control measure employed during software development. Its basic function is to detect errors. The starting point is unit testing, where each module is tested separately. After this the modules are gradually integrated into subsystems. After this overall system testing is performed.

The most commonly encountered errors are

- Invalid data
- Irrelevant data
- Missing data

INVALID DATA

If the user enters wrong data type, then that becomes an invalid data. So the users are provided with popup lists whenever needed. They are also provided with the help messages regarding the data to be entered. For example, in the data entry screen for the bank master, the users are provided with the list of bank names. So the user can enter data correctly and fastly.

IRREVALANT DATA

If the users type wrong information that may lead to wrong calculations, so users are provided with the valid data ranges. For example, in the data entry screen, the users are provided with messages indicating that they have to enter character type data or numeric type data.

MISSING DATA ENTRY

The user may not enter data to the fields; in this case the users are provided with the messages in case of missing data entries.

BACKUP AND RECOVERY

The backup for a system is necessary, because to prevent loss of data. Backups mean taking copy of the Records. Backups are taken on daily and weekly basis.

During the execution of program the records are accessed from the master files and stored in temporary files. This method is used because even if any accidental updating of the records happens, the original records can be updated from the master files.

TESTING

Software testing is a critical element of software quality assurance and represents the ultimate review of specification, design and coding. Once the software is implemented in machine executable form, it must be tested to uncover defects in logic and implementation.

TESTING OBJECTIVES

Testing's goal runs counter to the goal of other development activities. The objective is to find errors; a successful test is one that breaks the software. The goal of every other development activity is to prevent errors and keep the software from breaking.

TYPES OF TESTING

UNIT TESTING

Test focuses on each module individually that ensuring that it functions properly as a unit. Unit testing makes heavy use of white box testing techniques, exercising specific path in the control structure of a module to ensure complete coverage and maximum error detection.

INTEGRATION TESTING

The modules are integrated to form the complete software packages. At addresses the issues associated within the dual problem of verification and program construction. Black box test can design techniques and the most prevalent during integration, although a limited amount of white box testing may be used to ensure coverage of major control path.

VALIDATION TESTING:

It provides final assurance that software meets all functional behavioral and performance requirements. Black box testing is used exclusively during validation.

ACCEPTANCE TESTING

Acceptance testing refers to the client test of the software to ensure that the software is in accordance with software specification. This is the final testing phase. In many cases, this type of testing is not done formally, but occurs naturally as a result of the milestone delivery approach.

SECURITY TESTING

It attempts to verify that protection implemented to a system will, in fact protect it from improper penetration. An unauthorized user will not be able to enter into the system. Security is given to the system by providing passwords which identifies the user and allows him to operate the system.

USER INTERFACE TESTING:

This software is given to the user in order to test the interface between the user and the system. This type of testing is useful to find the user difficulty while using system.

TEST DATA AND OUTPUT

Test data are as important as test itself. Test data may be artificial or factual. Both artificial data and factual data were used for testing the limits of the system. For this system, the data used are live and are got from the external data. Here some of the samples are taken as test data. The inputs and the corresponding outputs are given in the following pages.

5.2 SYSTEM IMPLEMENTATION

System Implementation is the process of having system personnel check out and put new equipment's in use, training users install the new application and construct any file or database needed to use it. Implementation is the stage in the project where the theoretical design is turned into a working system. The most critical stage in achieving a new successful system is to improve the performance of the existing system and to make the proposed system effective. The first step in implementing the system is in getting the approval from the system manager. The data entry, various menus and the most important reports are produced before the concerned members. It is done in view of the last minutes changes to the design formats. When the department's manager is satisfied, he is asked to give approval to the new system. Finally the system is handled to the data entry operator. Sometimes the existing and the proposed system are executed simultaneously and are compared and the merits of the proposed system are noted.

Implementation is the stage where the theoretical design is converted into a working system. This is a process of converting a new or revised system into an operational one.

STEPS FOR IMPLEMENTATION:

- Installation of hardware and software utilities.
- Testing the developed system with sampled data.
- Detection and correction of errors.
- Data updating
- Modification and enhancement

As we discussed before the important aspect of the system analyst's job is to make sure that the new design is implemented to the established standards. The term implementing has different meanings, ranging from the conversion of a basic application, to a complete replacement of a computer system. Implementation used here is a process of converting a new system design into an operational one.

There are three types of implementation:

1. Implementation of a computer system to replace a manual system.
2. Implementation of a new computer system to replace existing one.
3. Implementation of a modified application to replace an existing system using the same computer.

Implementation of a computer system to replace a manual system

The problem encountered are converting files, training users, creating accurate files and verifying printouts for integrity.

Implementation of a new computer system to replace existing one

This is usually difficult conversion if not properly planned there can be many problems. Some large computers have taken as long a year to convert.

Implementation of a modified application to replace an existing system using the same computer

This type of conversion is relatively easy to handle, provided there are no major changes in this files. Implementation is the process of converting a new or revised system design in to an operational one. It is the key stage in achieving a new successful system, because usually it involves a lot of up level in the user department.

Therefore it must be carefully planned and controlled. Apart from the planning the major tasks, of preparing for implementations are education, training of users and testing of he system. Education of users should really

have taken place much earlier in the project when they involved in the investigating and design work. Training has to be given to the staffs reading the new system. Once the staff is trained the system can be tested.

Since the existing system is mostly manual and we are replacing that manual system with the computer system. So according to the implementation is called the first type of implementation.

Thus the implementation is the process of converting a new or revised system design in to an operational one. It is the key stage in achieving a successful new system, because usually it involves a lot up level in the user department. Therefore it must be carefully planned and controlled. Thus the implementation holds a very much important role achieving the target.

CONCLUSION

6. CONCLUSION

The list of beneficiaries of this modern technology is almost endless. Thus computer plays a vital role in every human's life and become part and parcel of everyone's life. Computers have driven with blazing speed, radical, upheavals every where. These machines have literally appended traditional practices. The efficiency of this system understanding conditions points to its attractiveness. The communication speed is the only thing that connects for higher efficiency. As the technology is fast changing we need to perform the task in a fast and efficient manner. Further, this project is real time one which is developed to minimize the difficulties what we face automobile servicing, where this system is mainly focused in renovating process so that future enhancement is much possible in our proposed system. Thus this reduce maximum problem what we faced in our existing system. Using this software, we can computerized the manual job, where as it performs the processing in an accurate way and get the formatted output. This saves the time and effort of the operator. Upgrading, if any the system can be done at ease without affecting the proper functioning of the system.

Even though the front-end can be designed using any other languages , but the VB.NET helps a lot in creating a user friendly environment and Oracle is used to handle a huge amount of data and maintain the same in a more customized manner with accurate and appropriate security. Thus about a brief conclusion of the proposed system along with the special features in selecting this language.

SCOPE FOR FUTURE DEVELOPMENT

7.0 SCOPE FOR FUTURE DEVELOPMENT

- Provide loan for the employees.
- Provide appraisals and incentive for employees.
- Manage financial status of the company.
- Reports can be generated graphically.
- Sales details can be maintained.

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8. BIBLIOGRAPHY

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- 'MSDN (Microsoft Developers Network)', Microsoft Corporation, Visual Studio.NET Release.

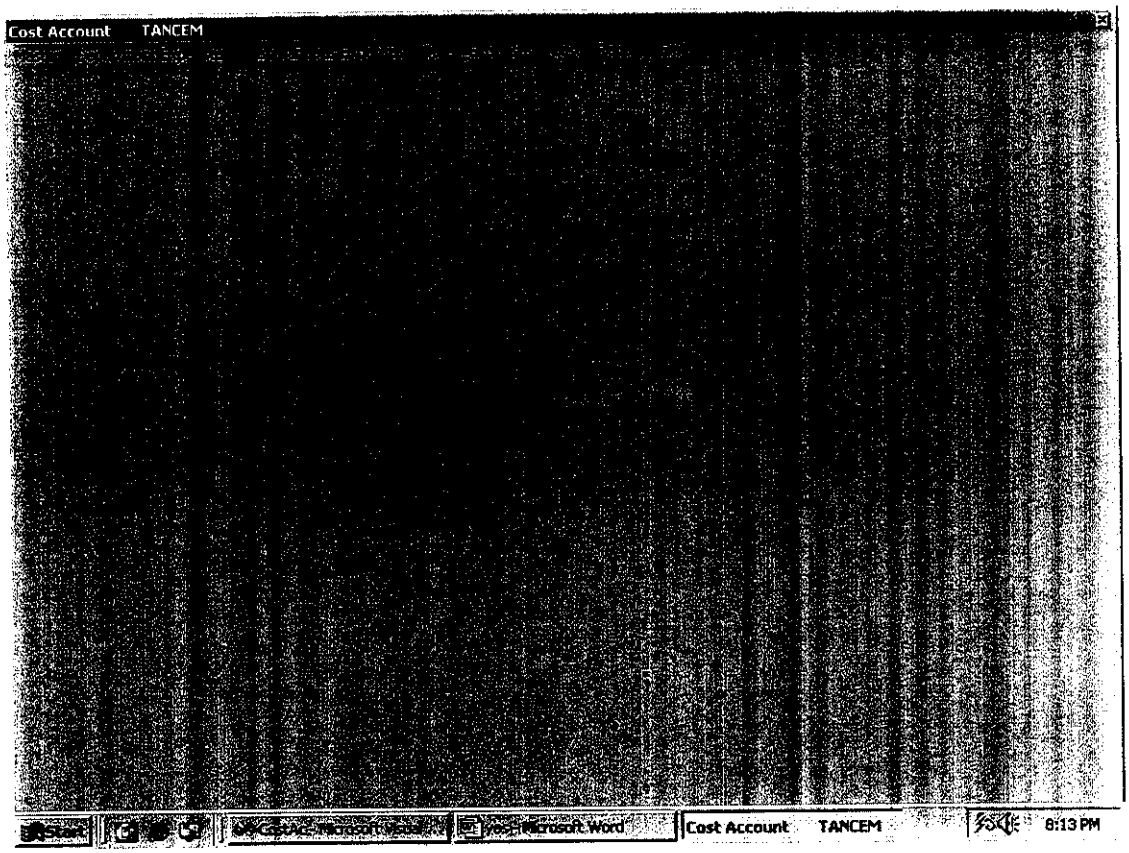
Websites referred:

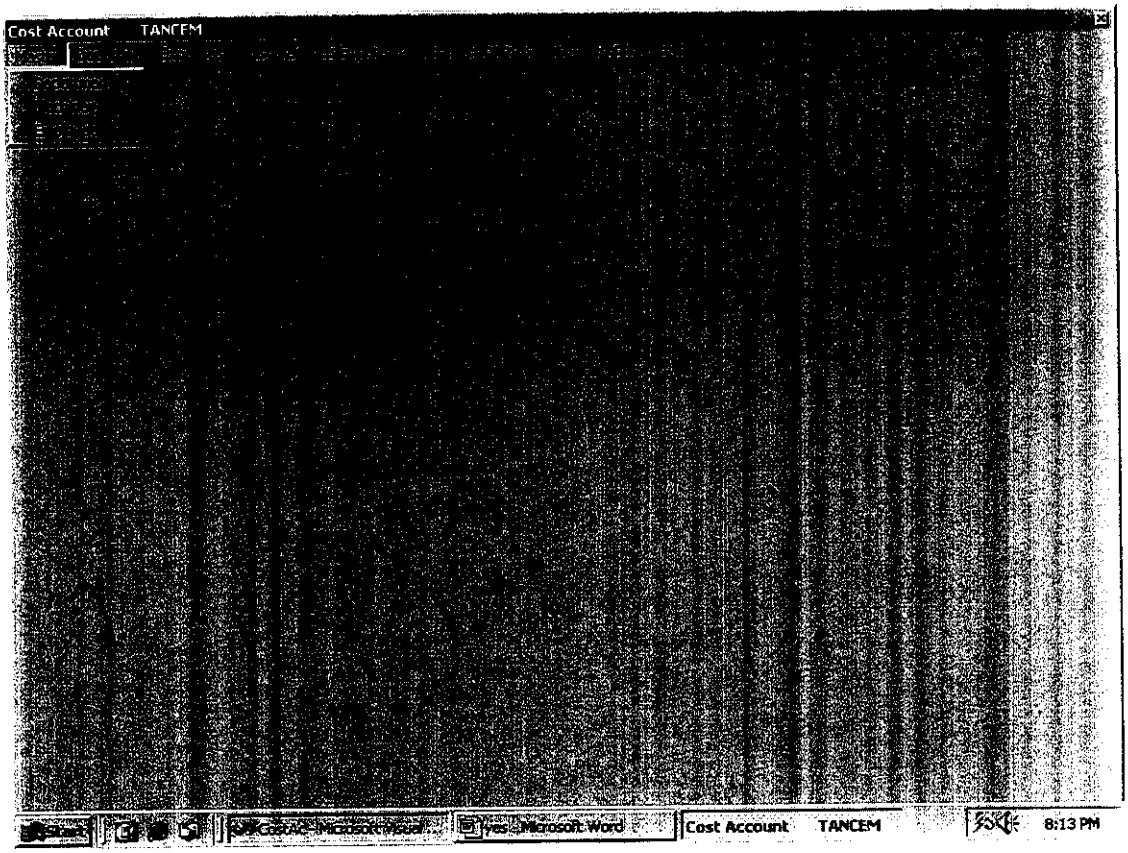
1. www.faqs.org
2. www.eguru.com
3. www.programmersheaven.com

APPENDIX

9. APPENDIX

9.1. SAMPLE SCREENS

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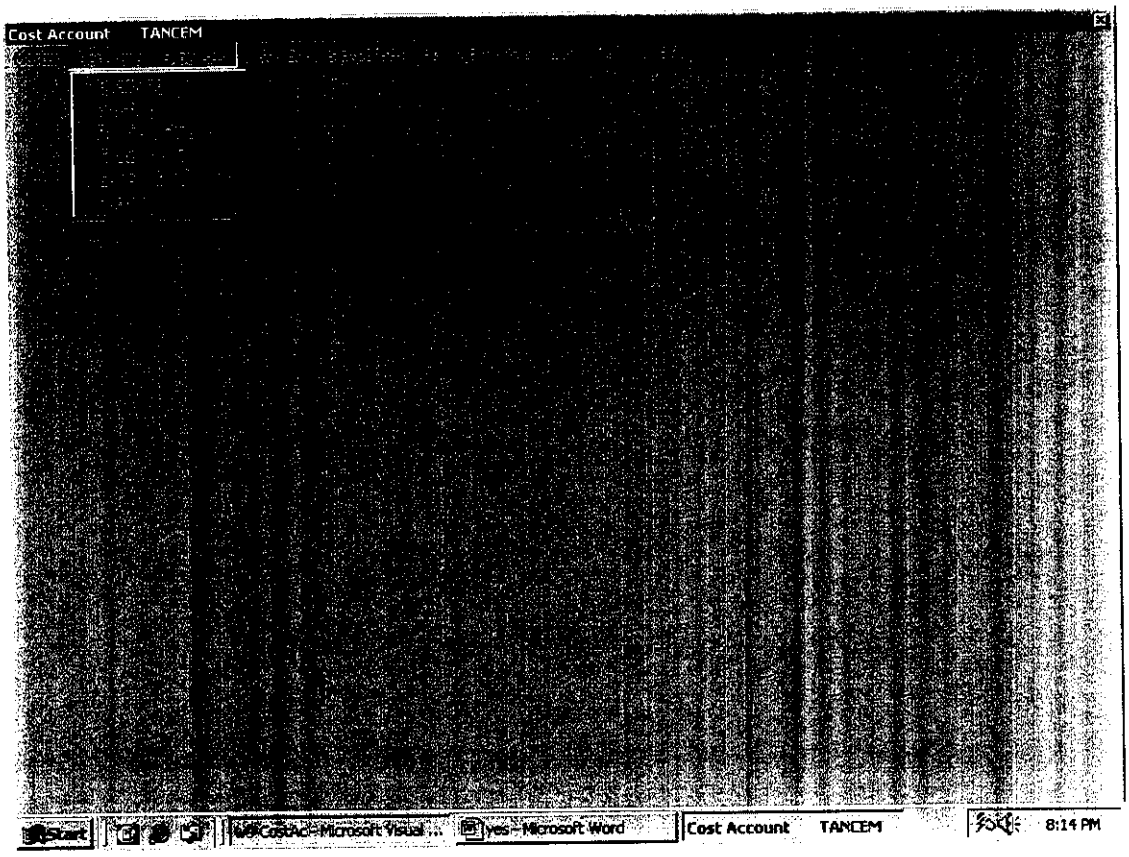
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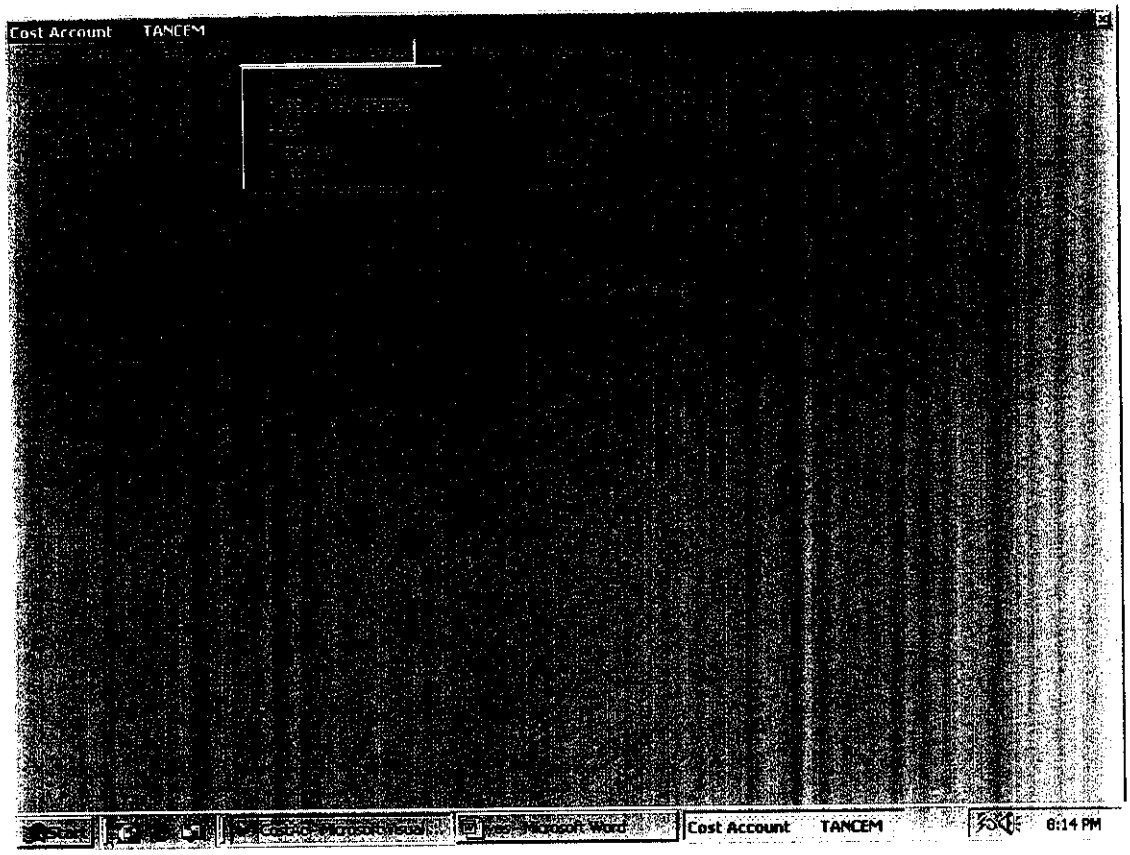
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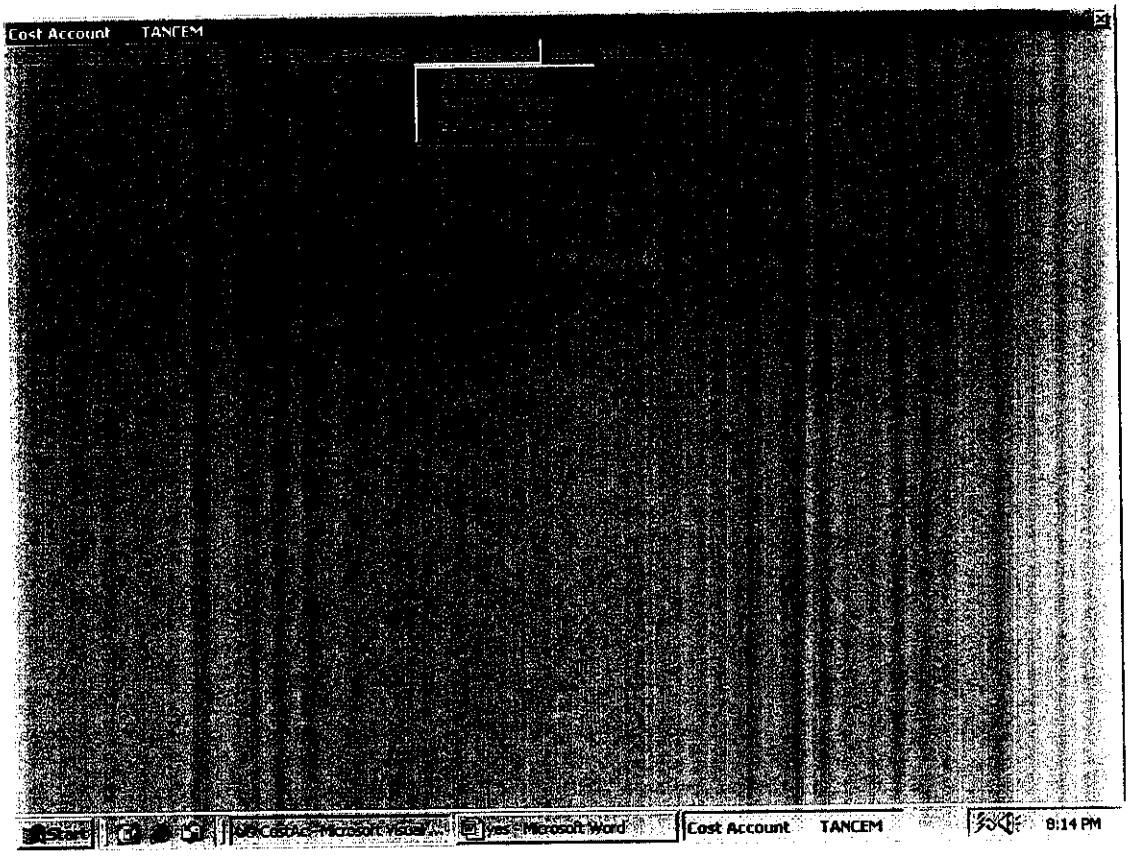
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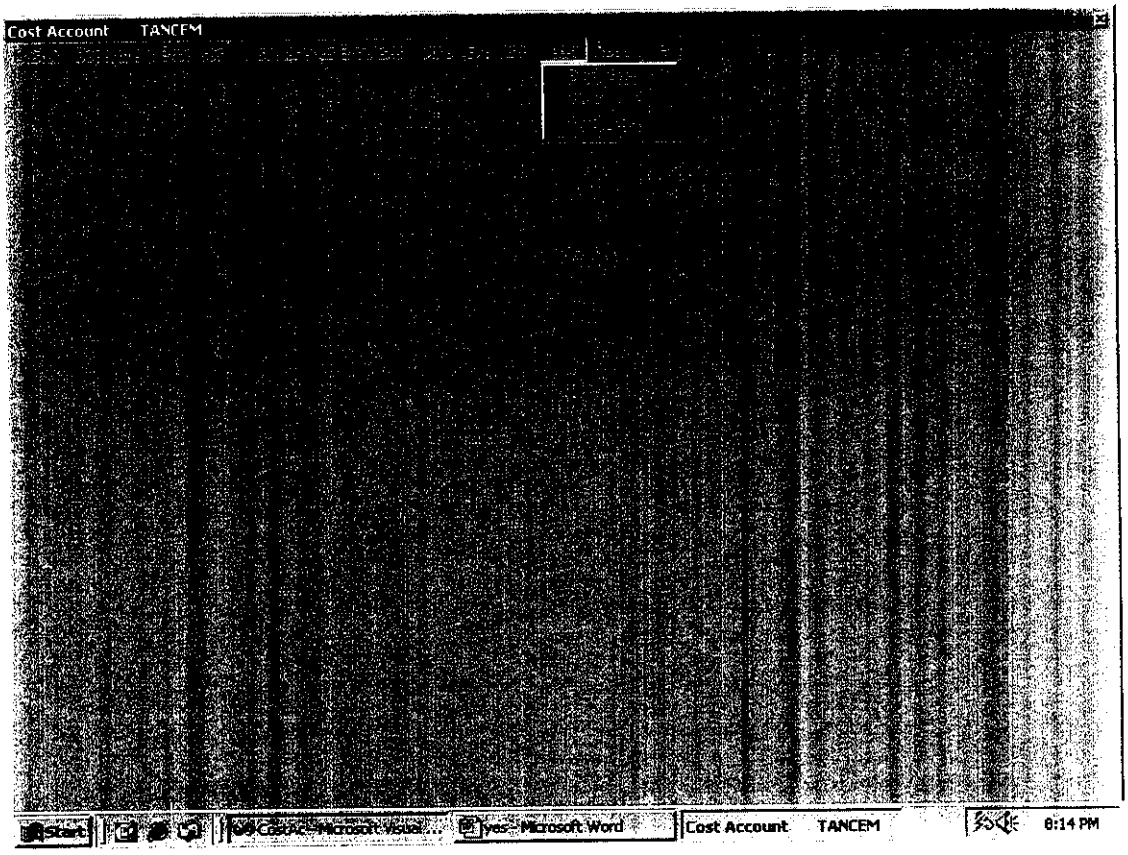
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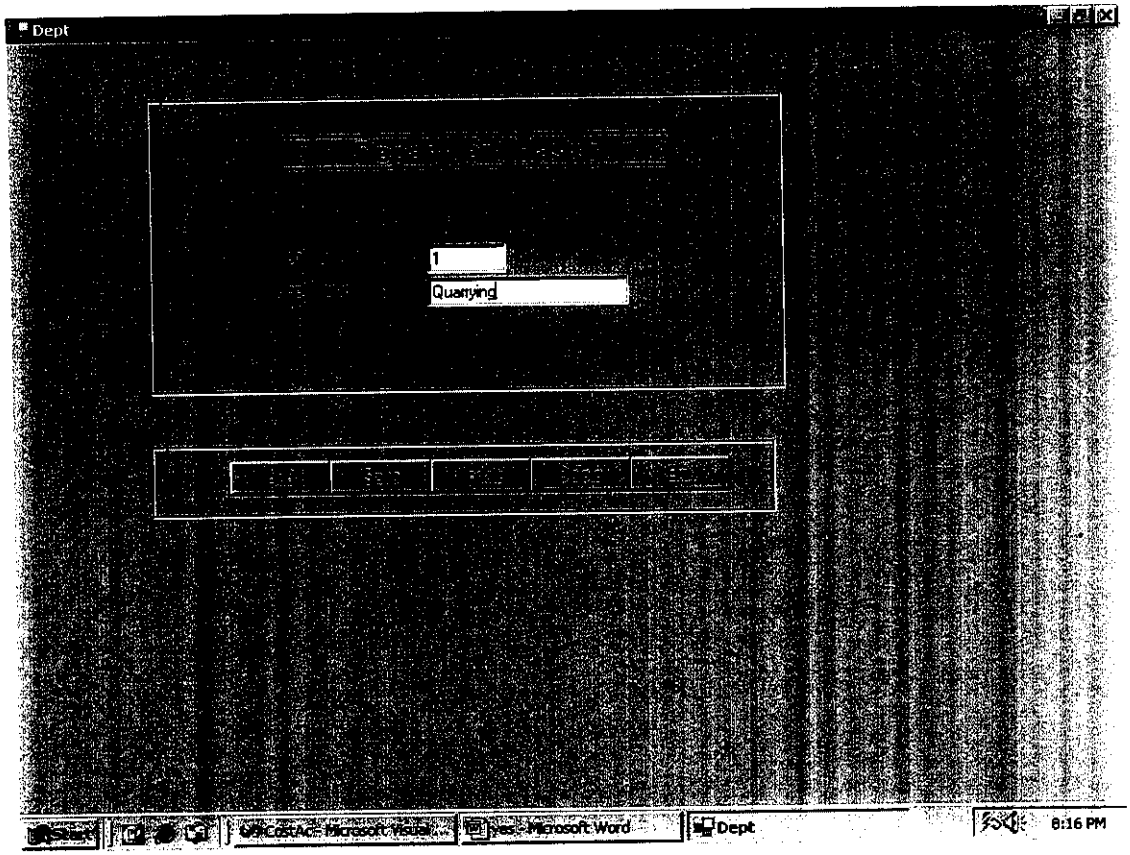
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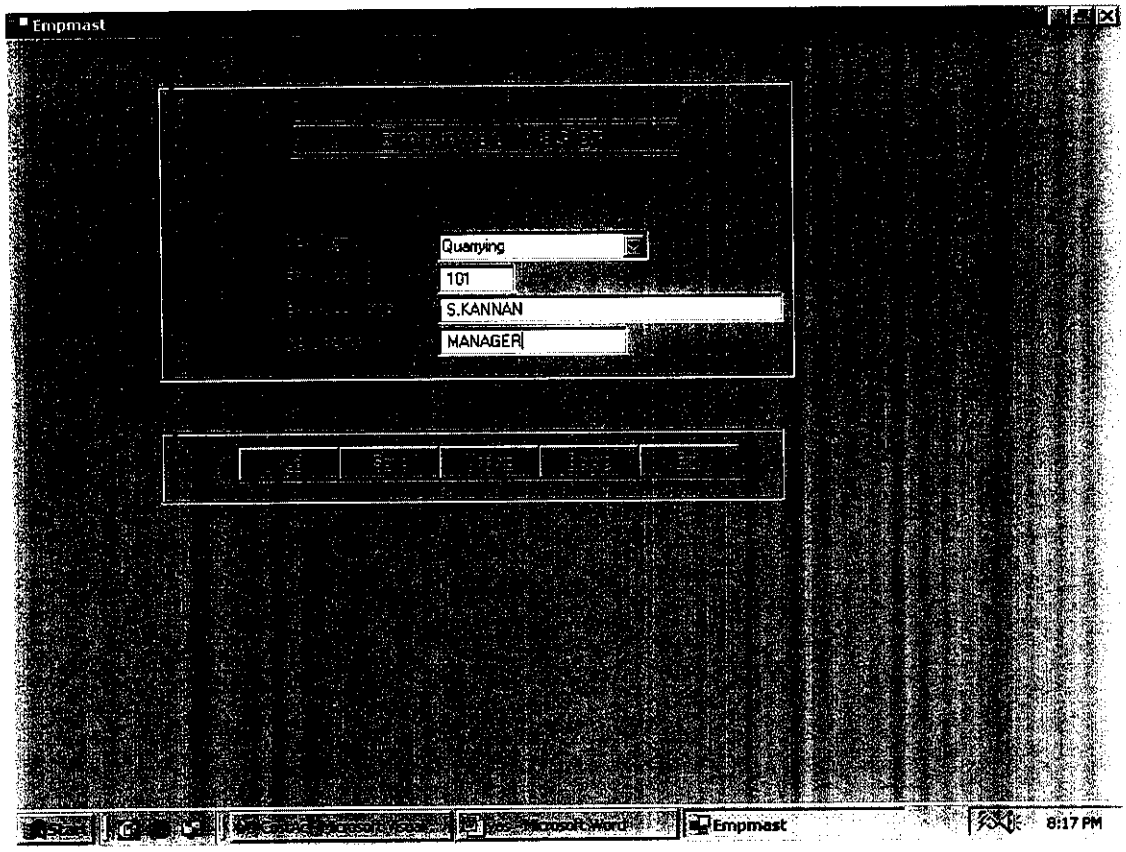
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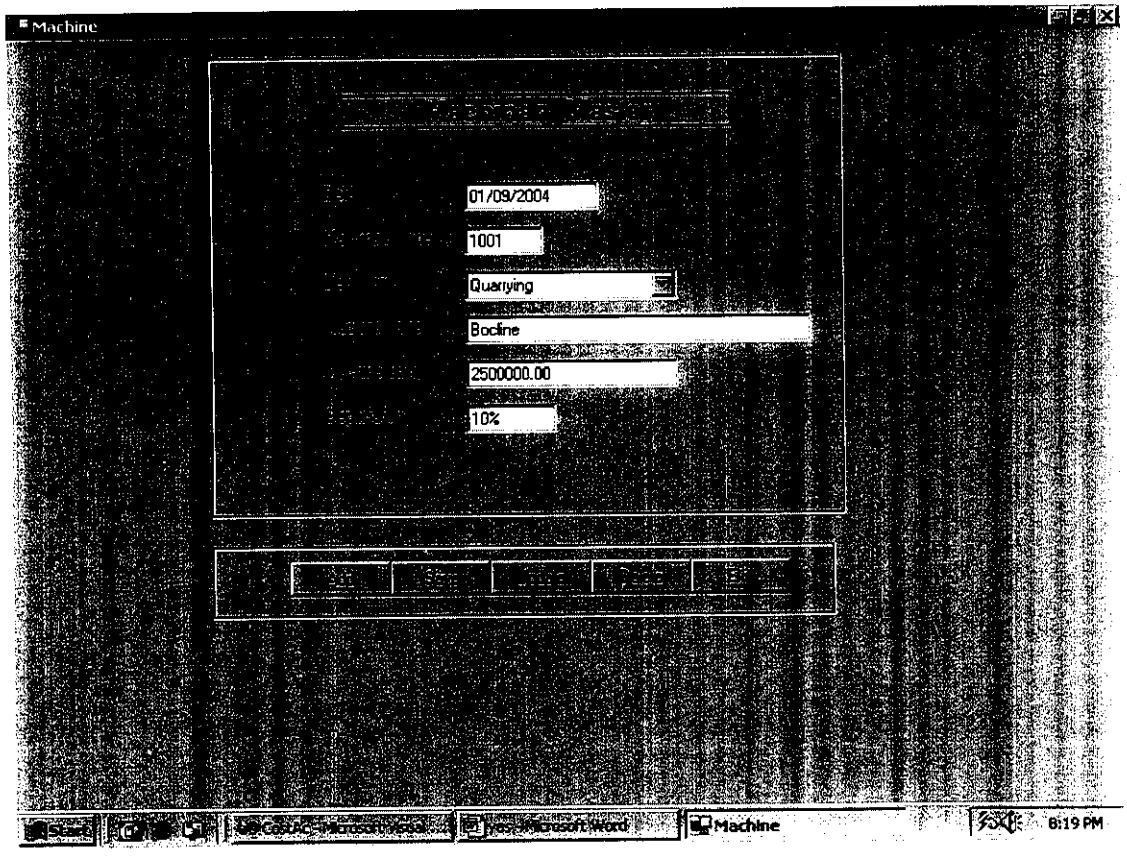
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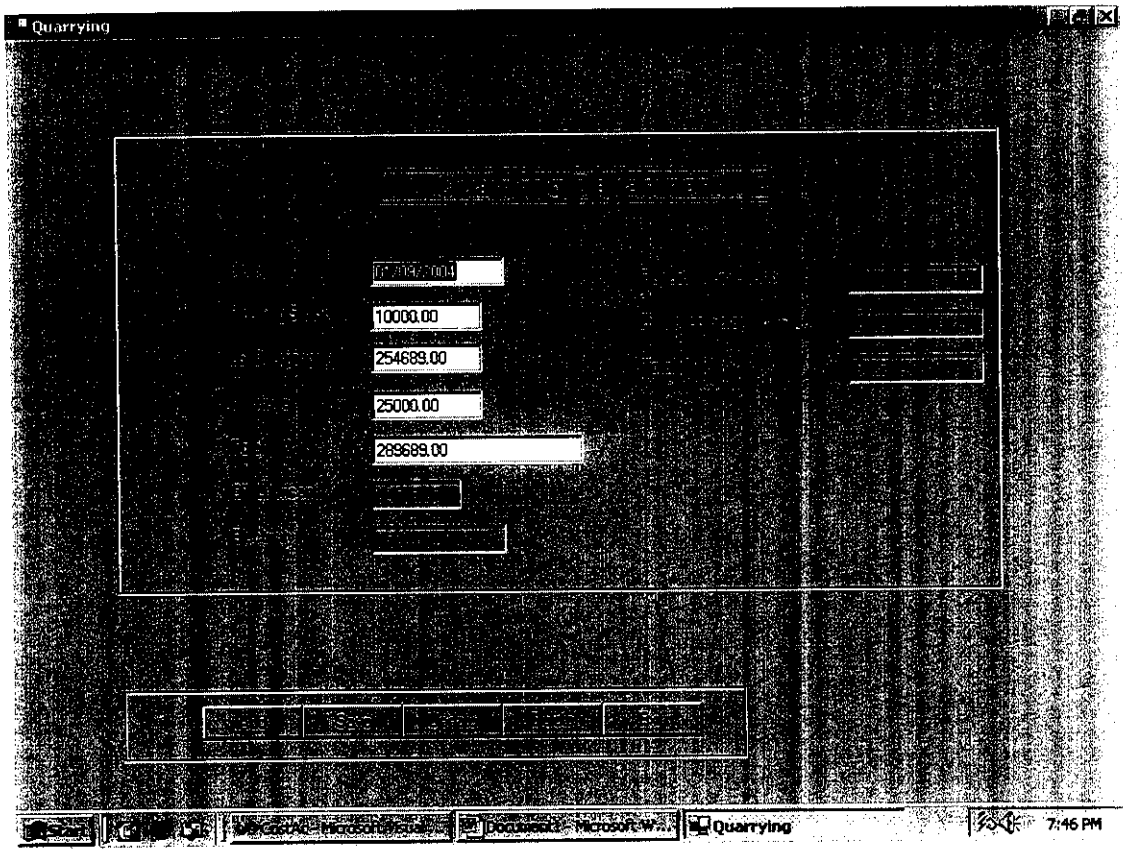
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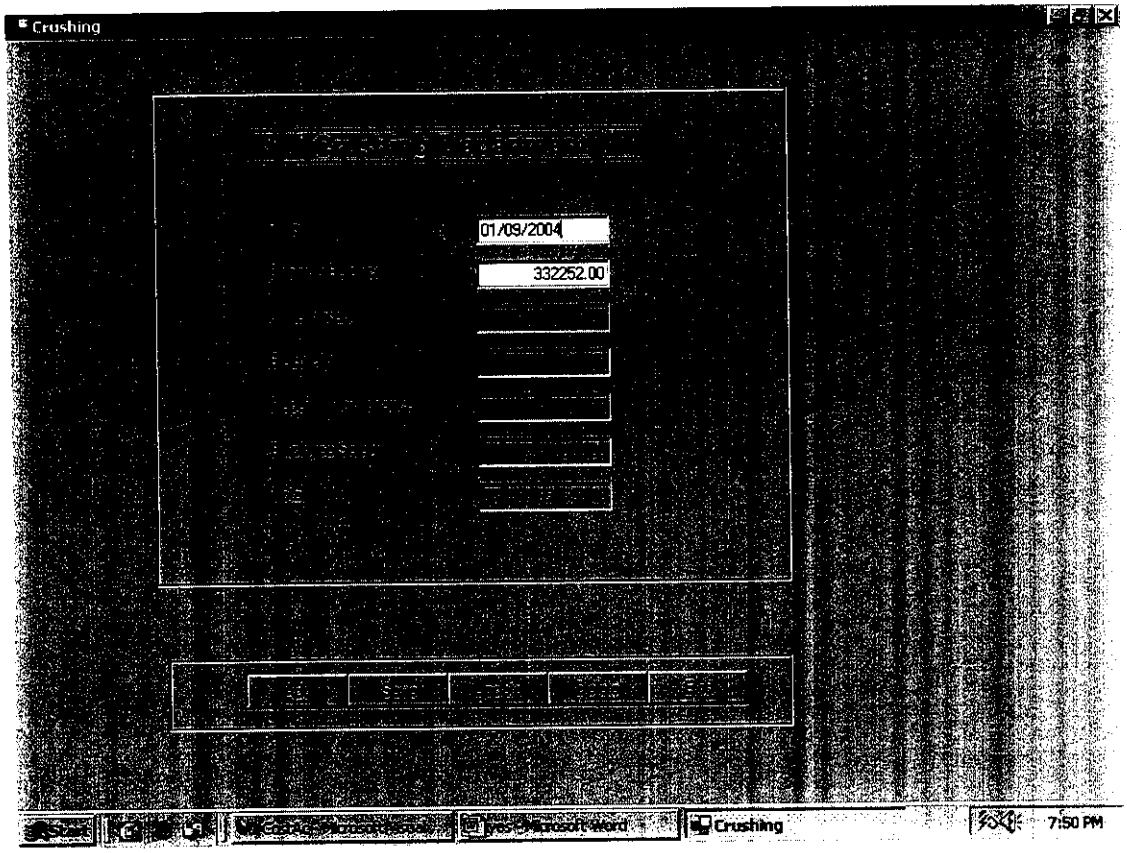
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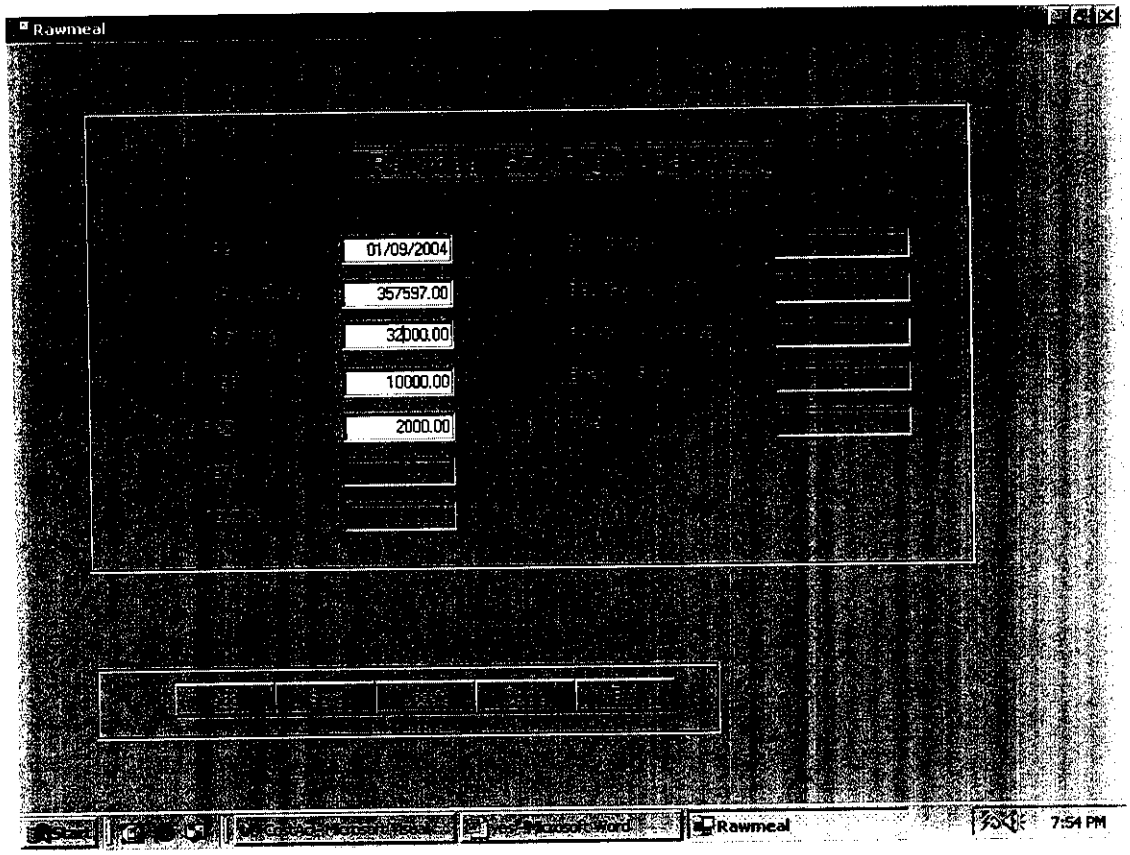
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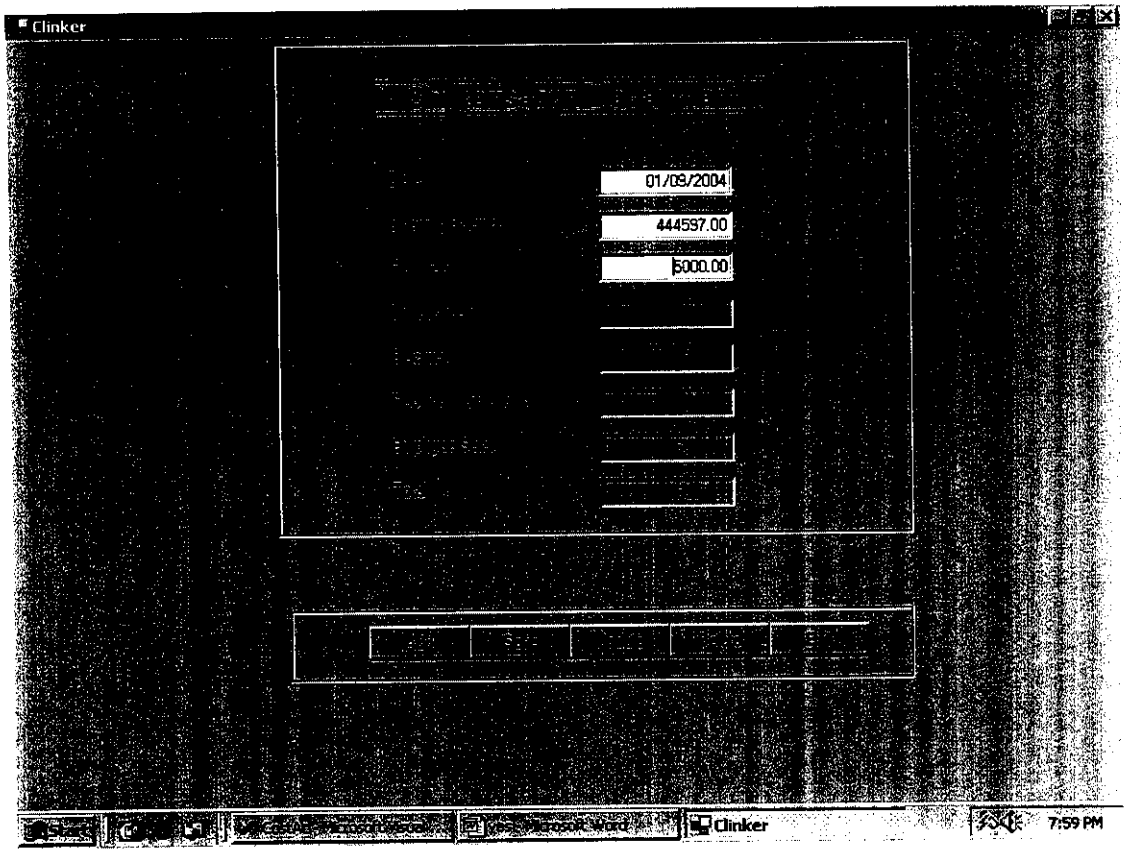
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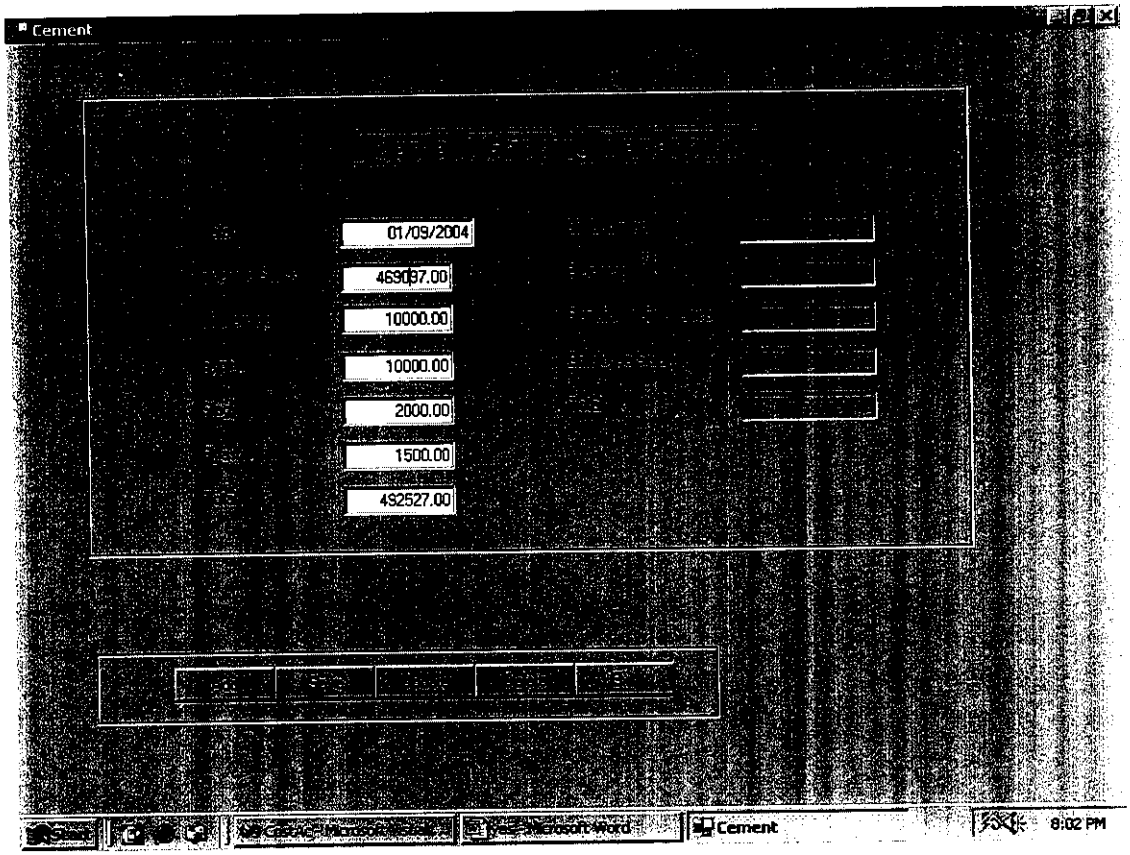
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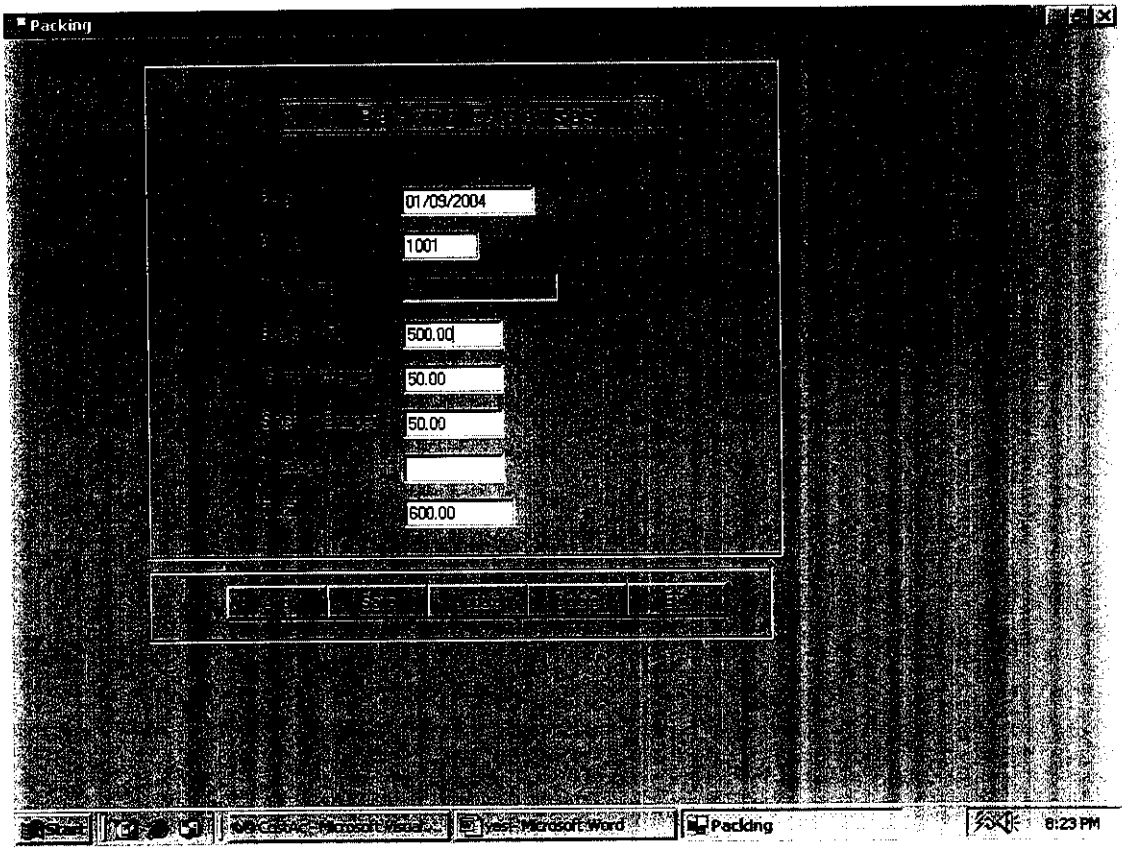
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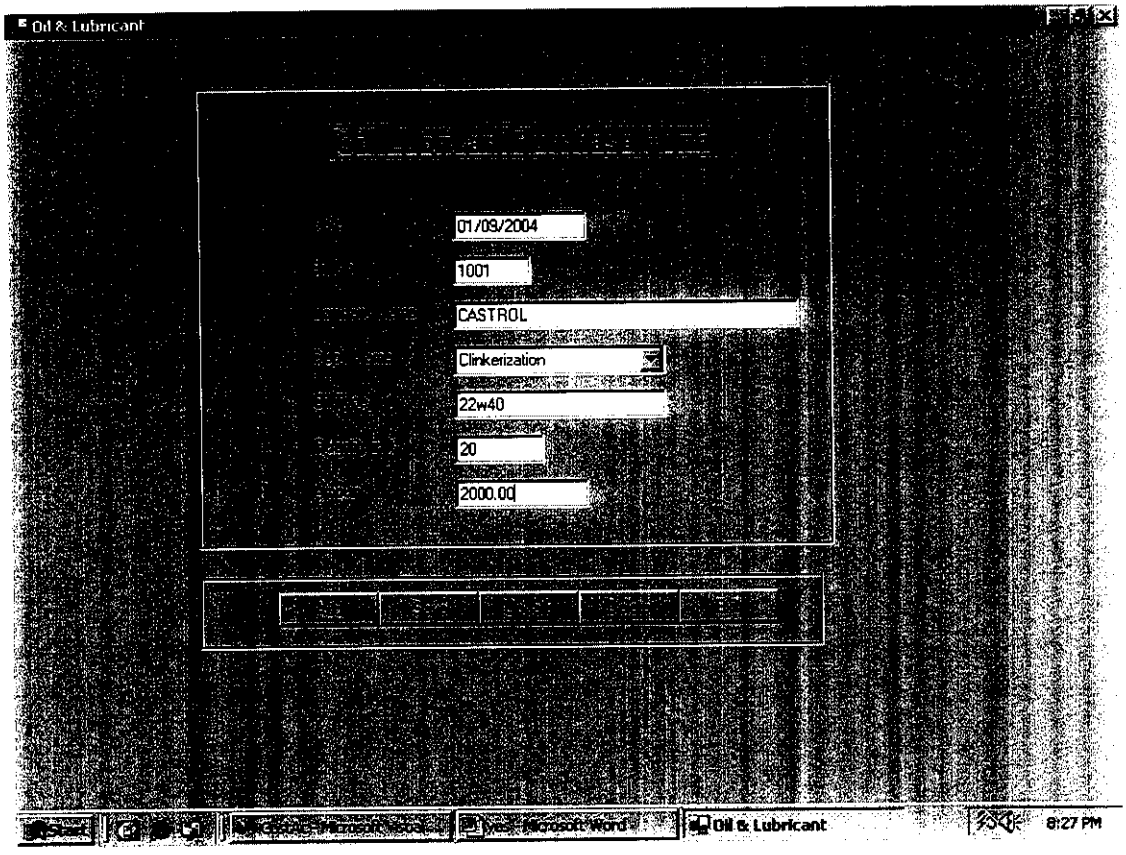
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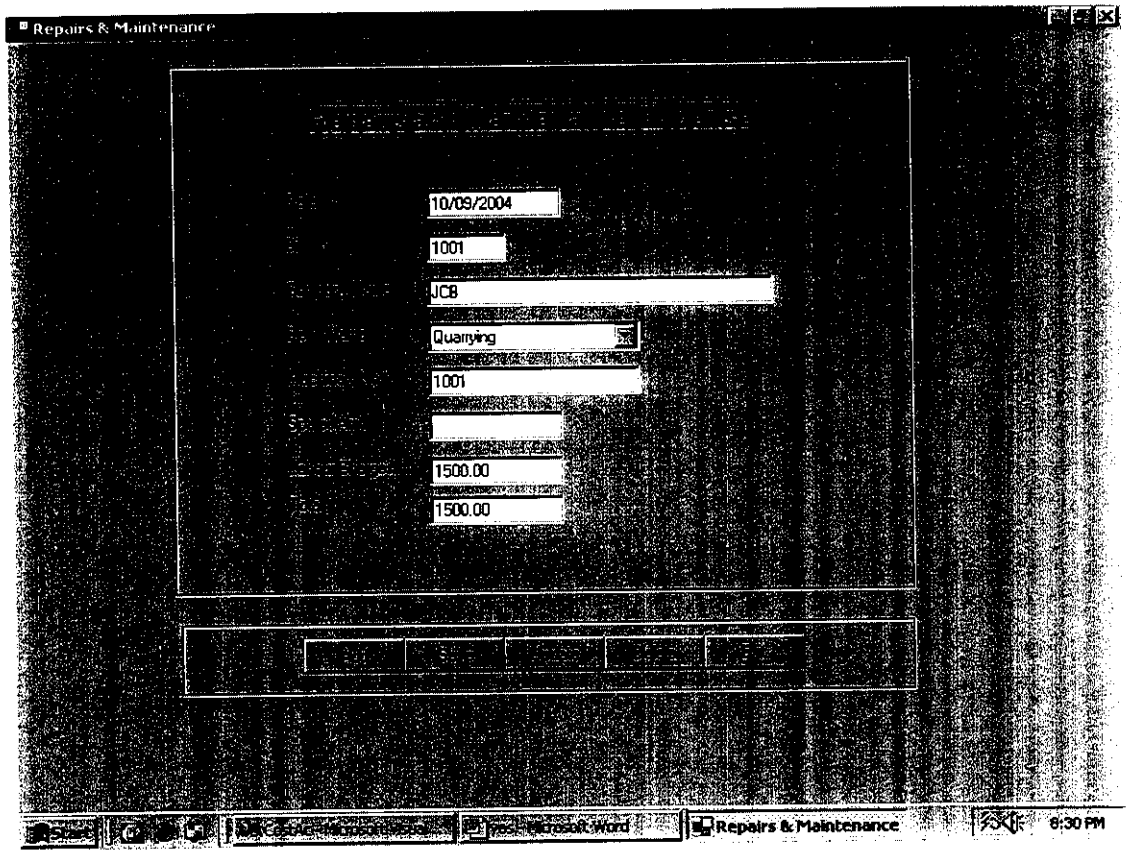
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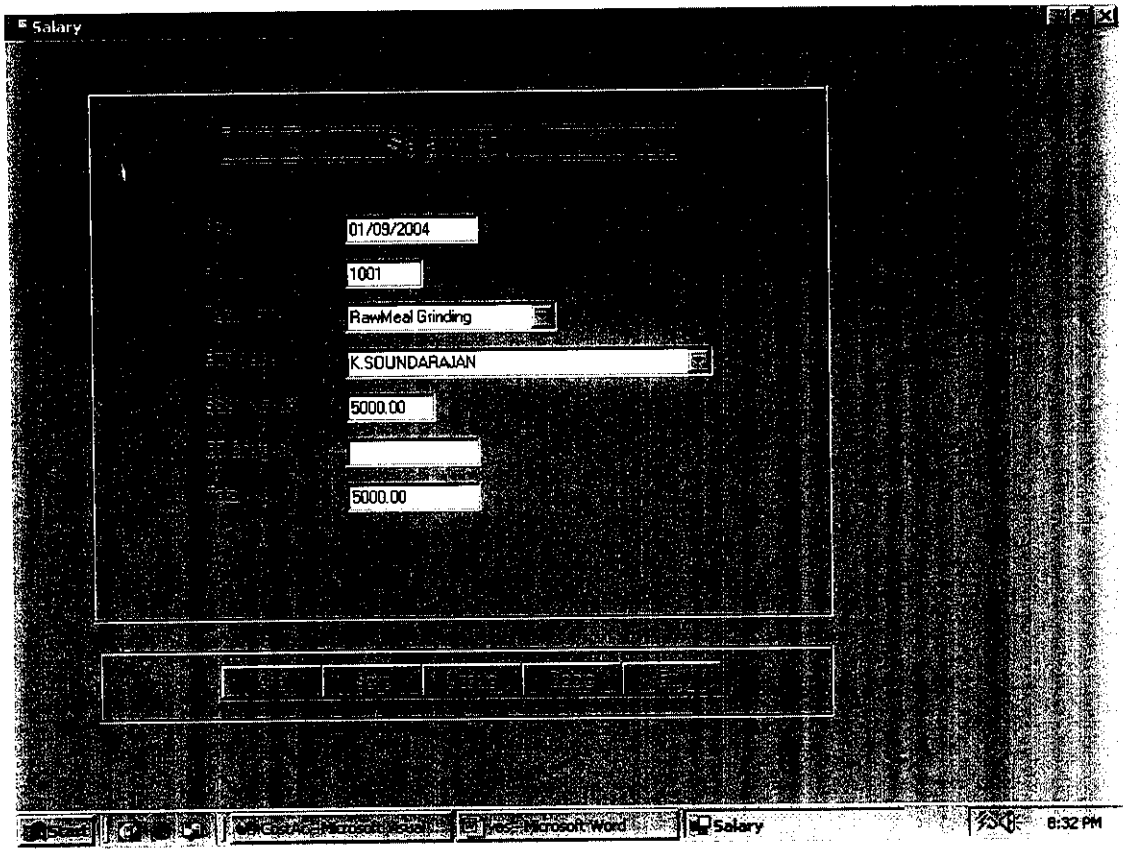
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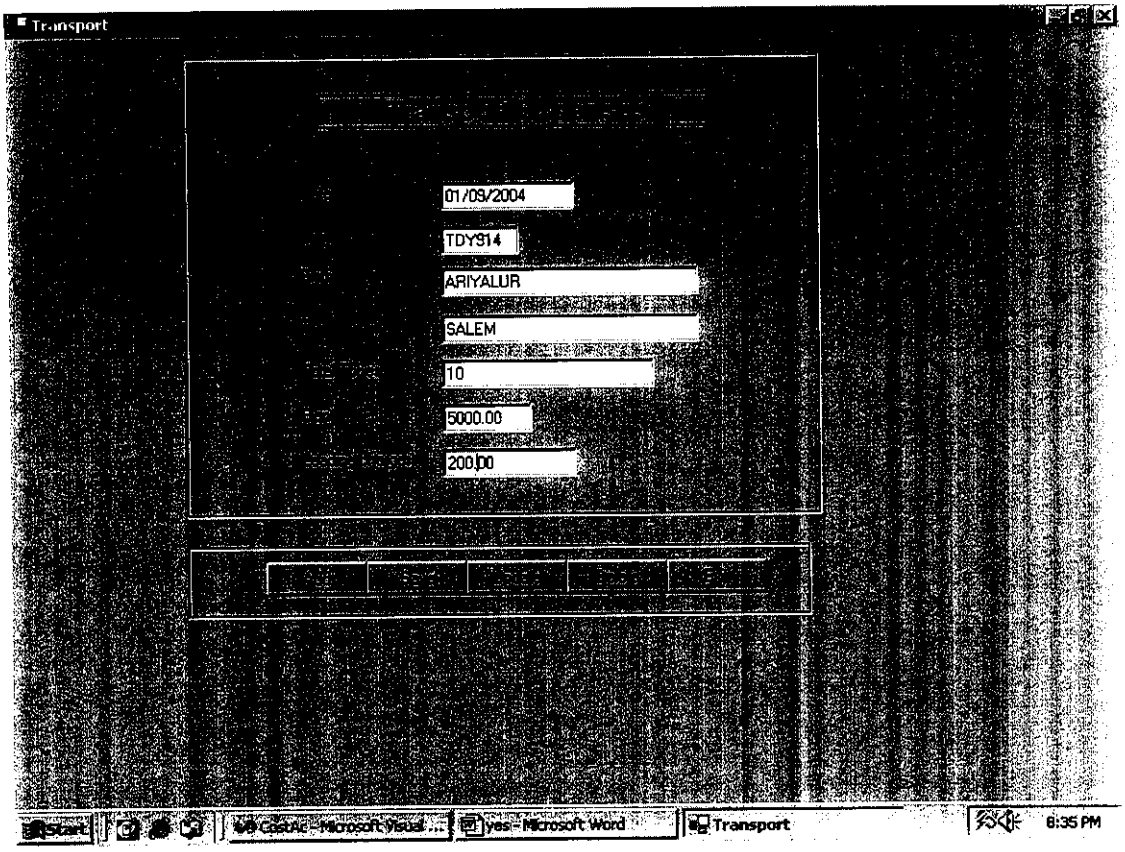
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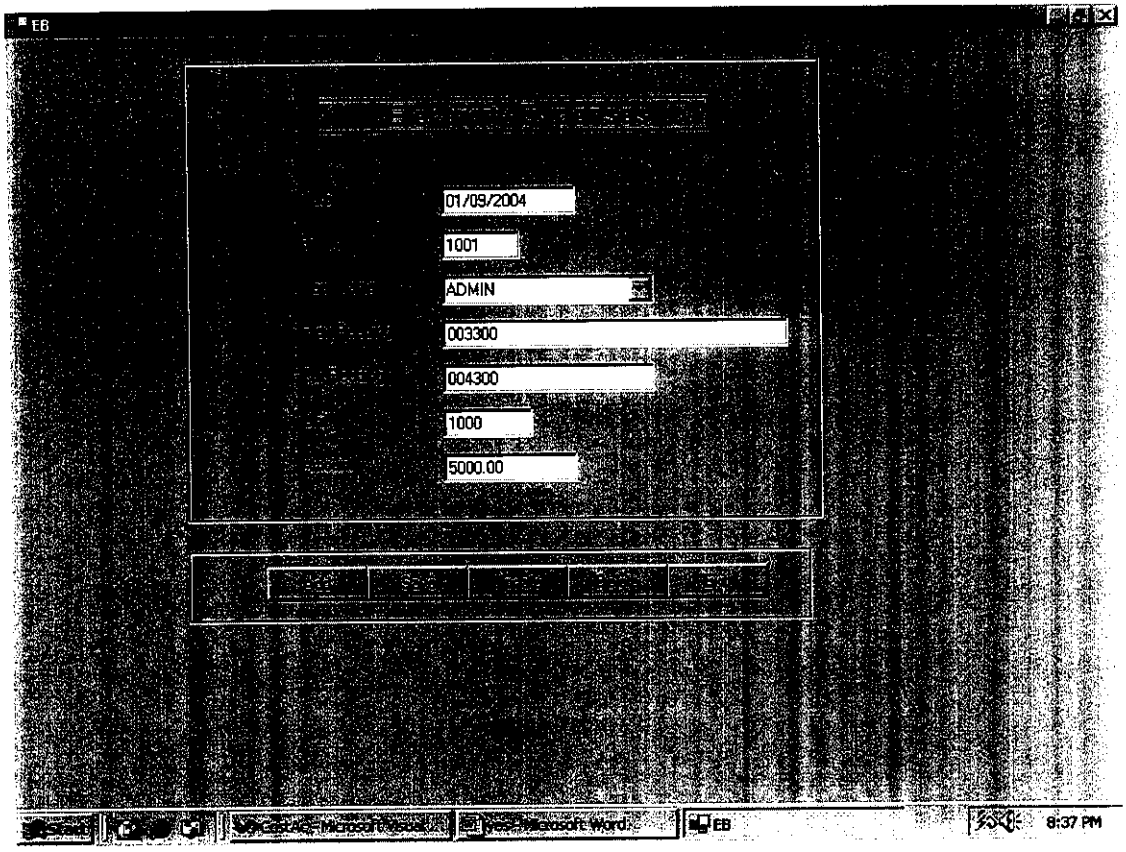
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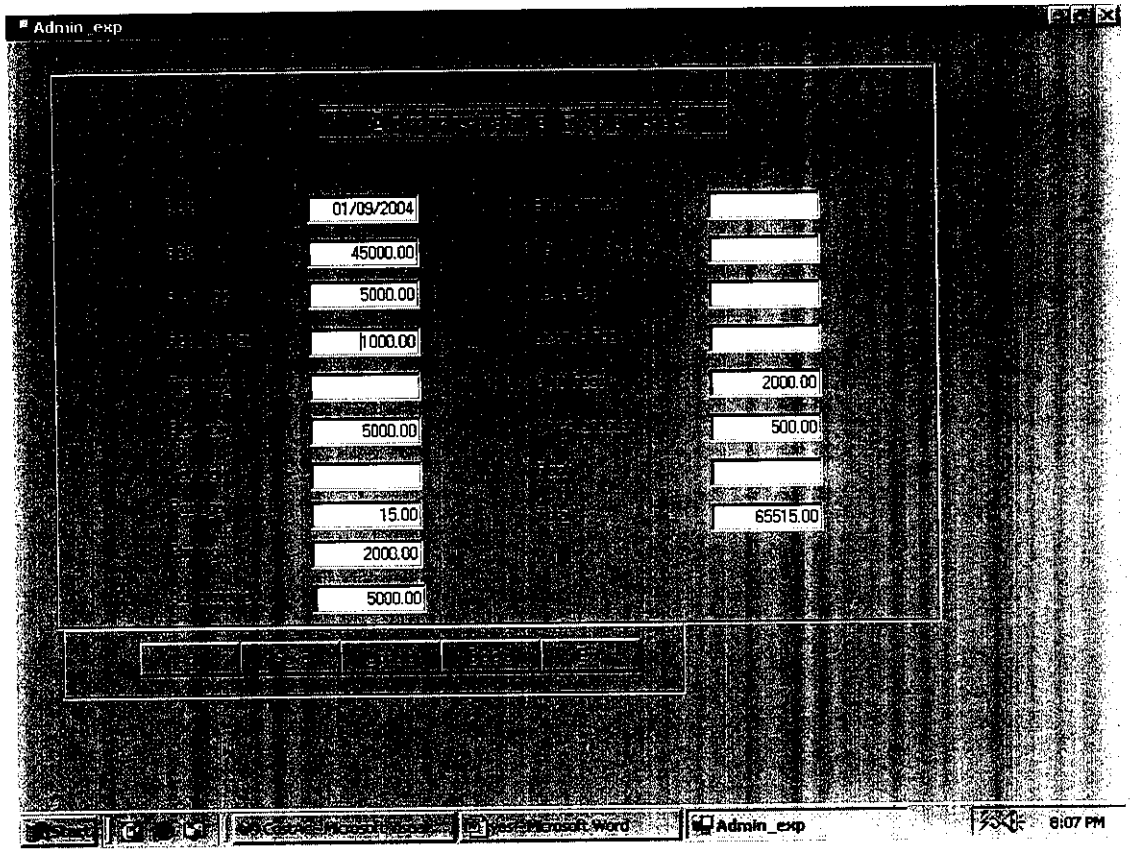
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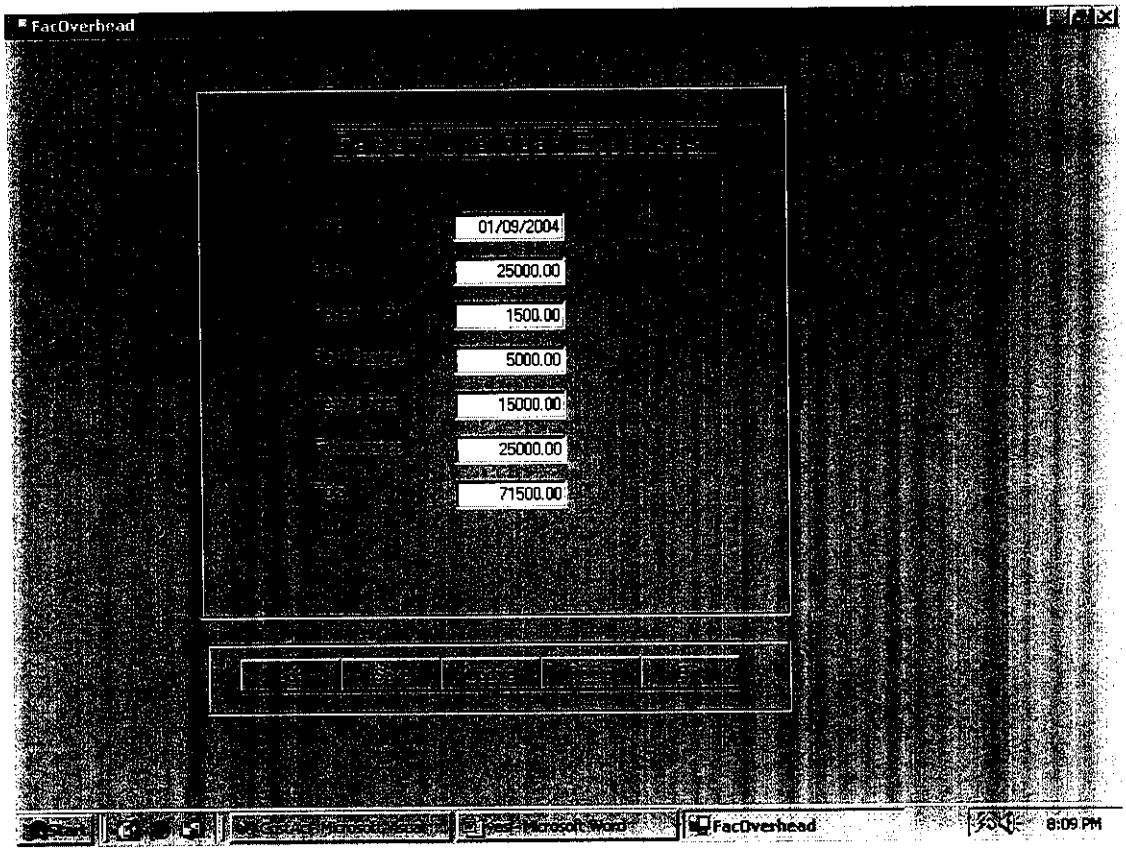
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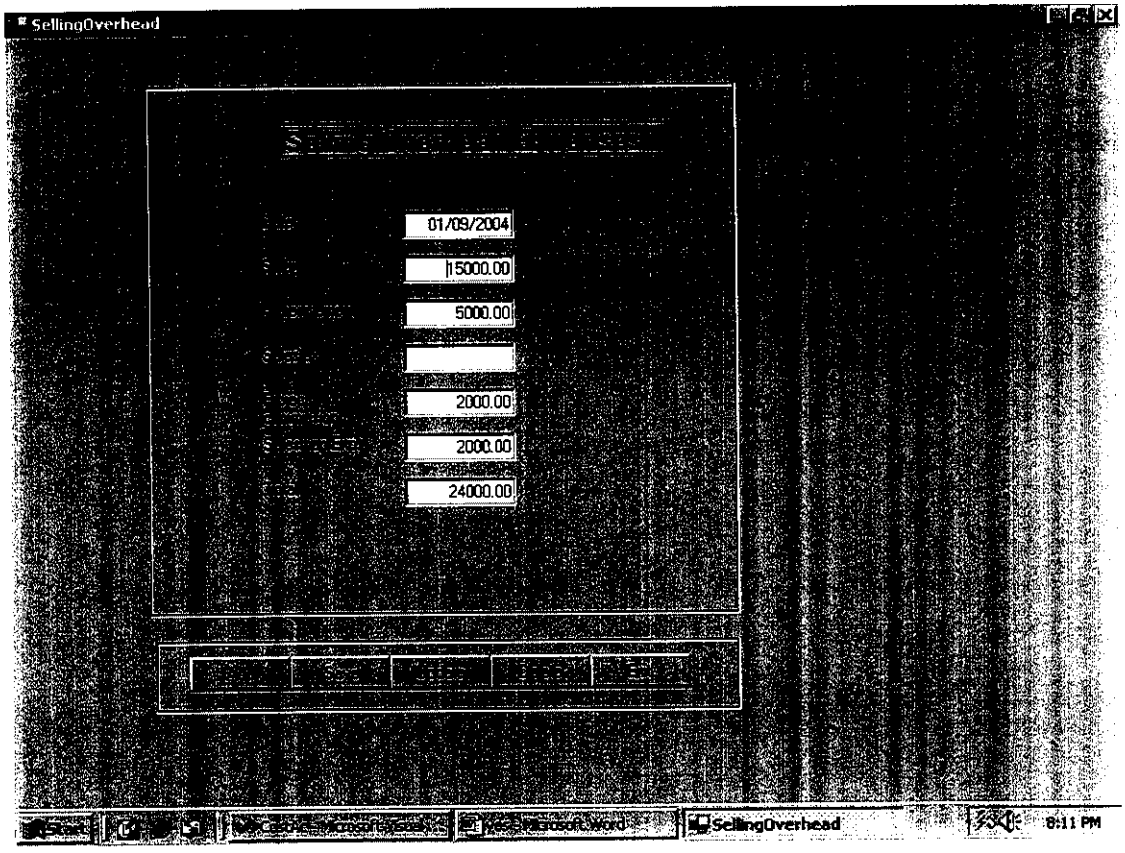
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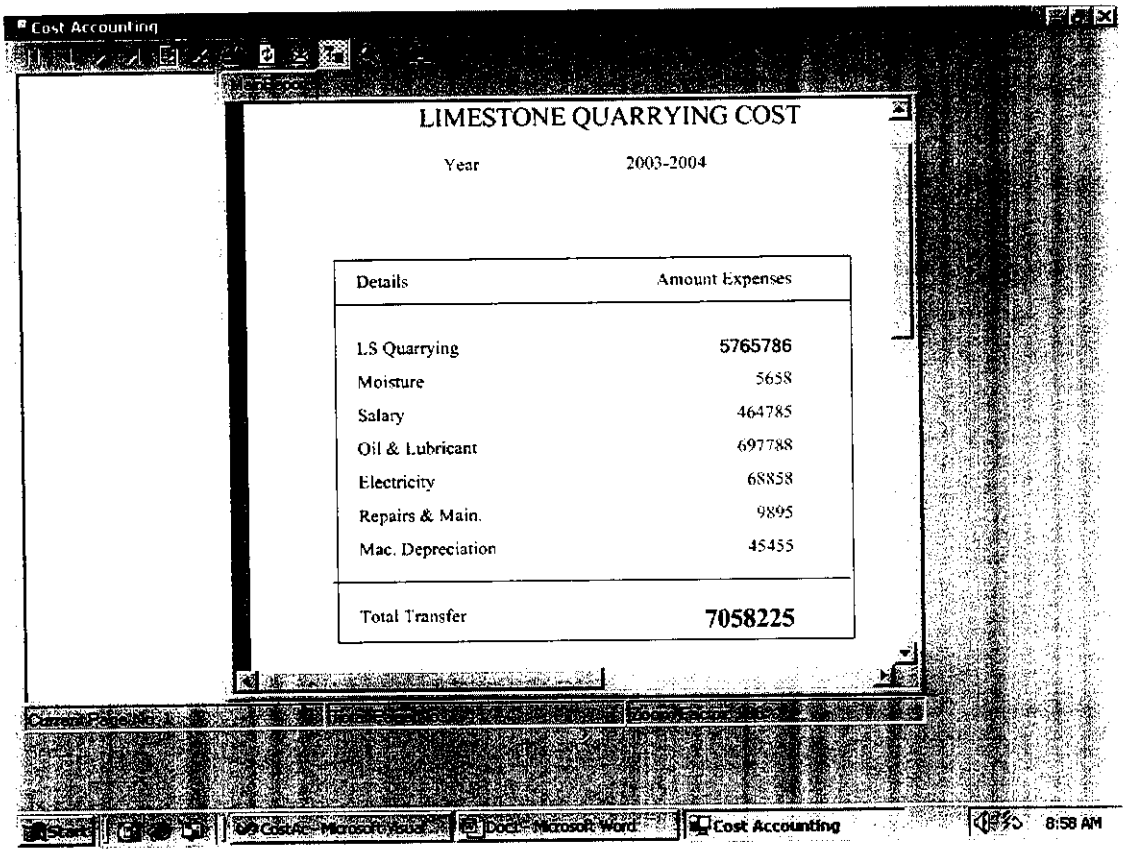

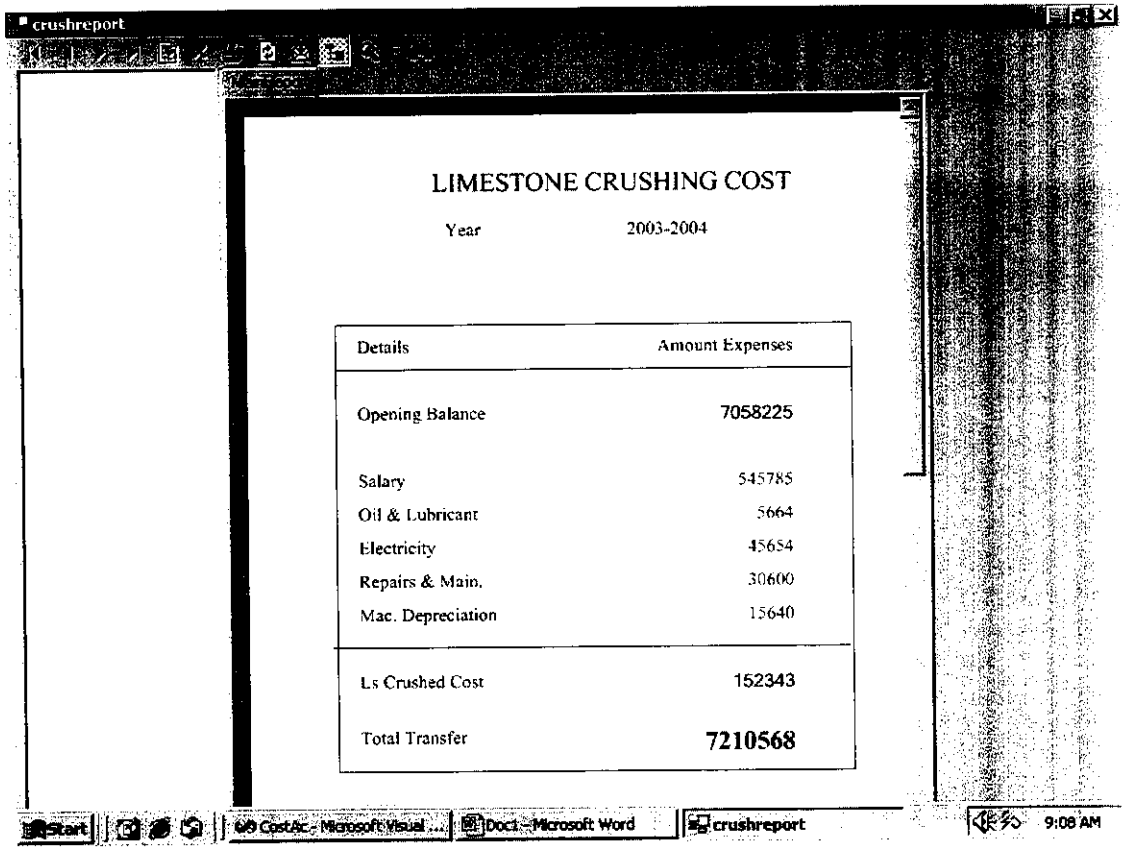
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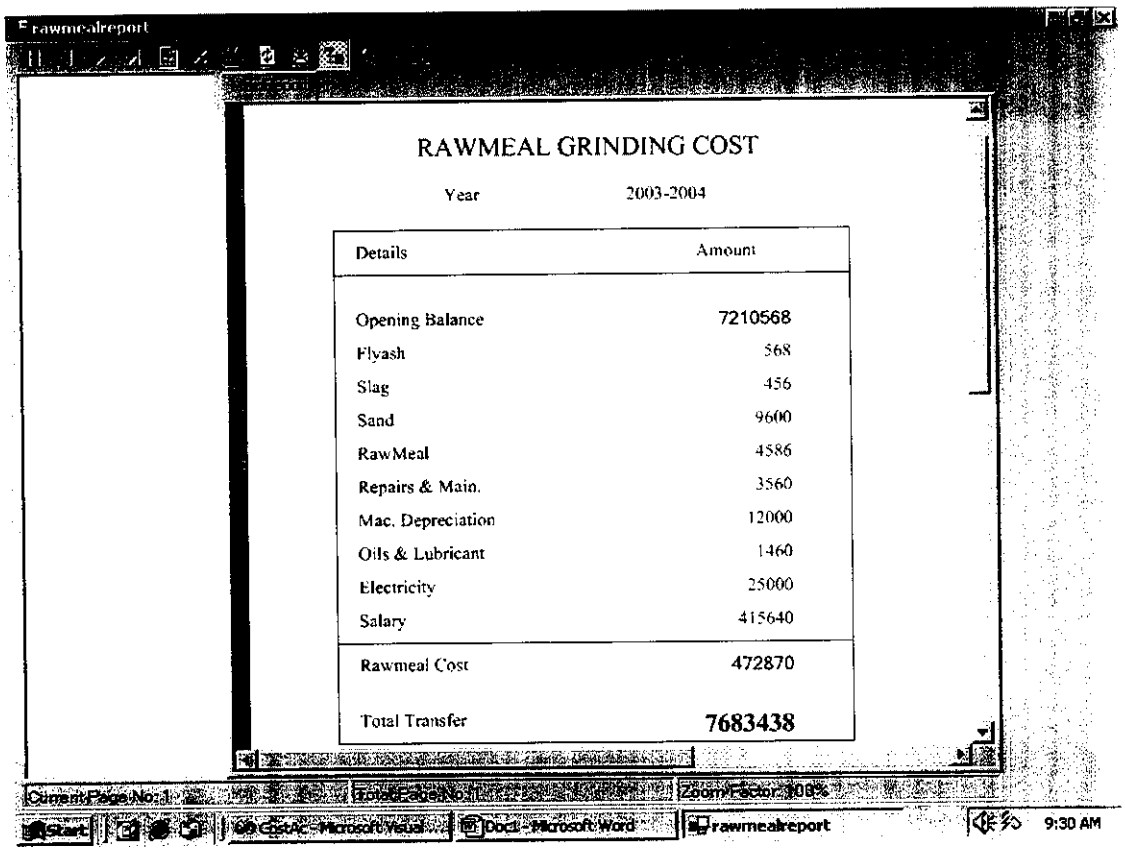
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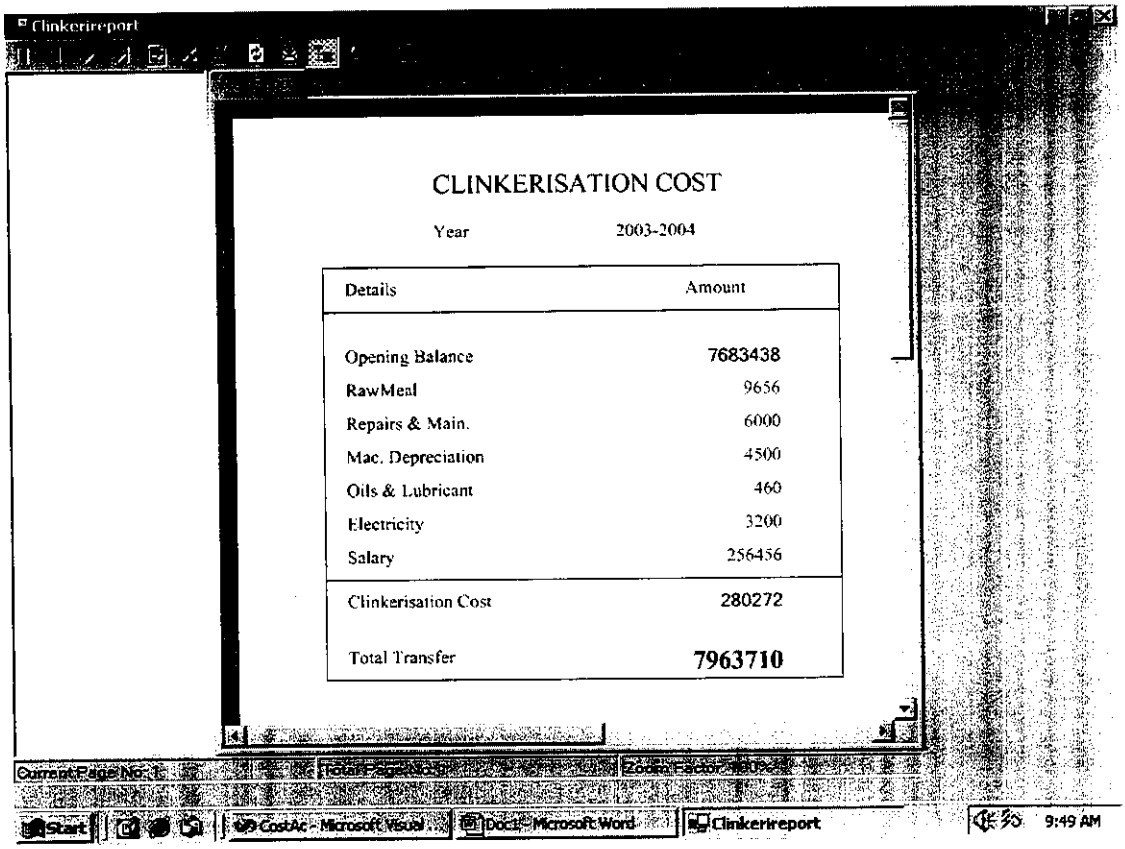
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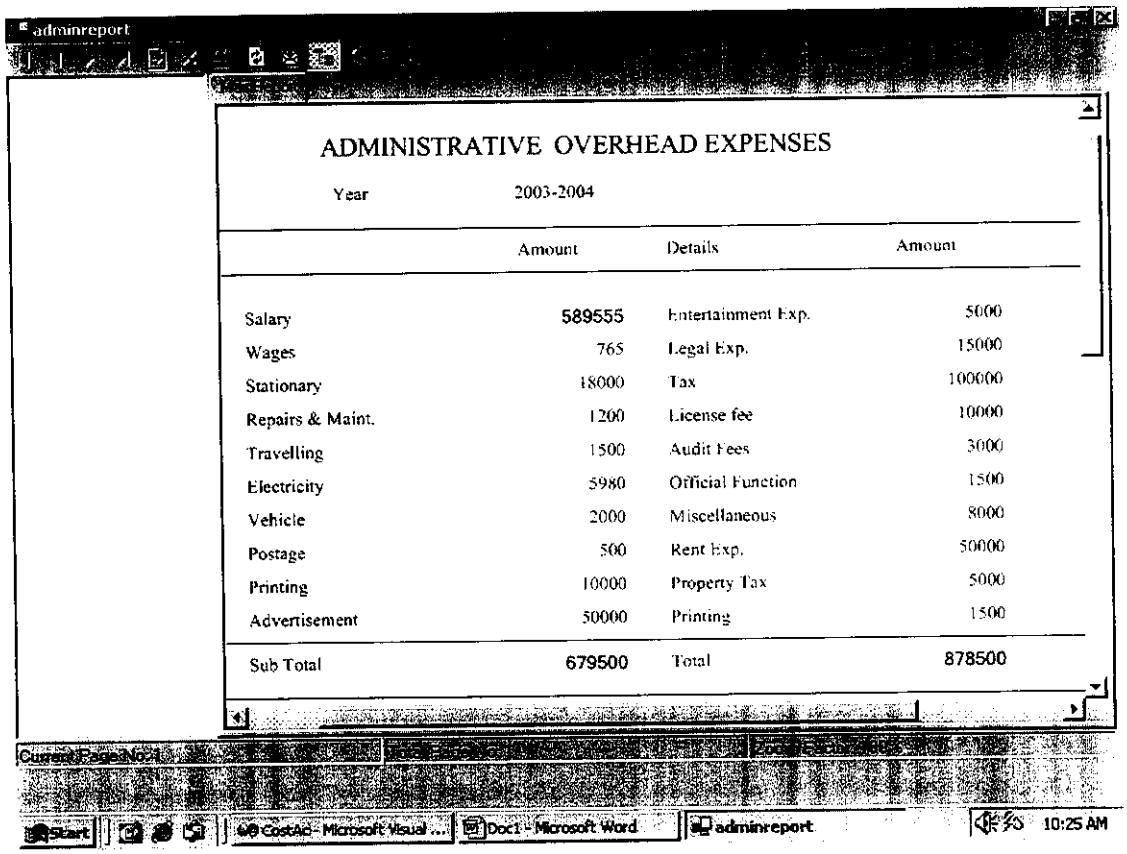
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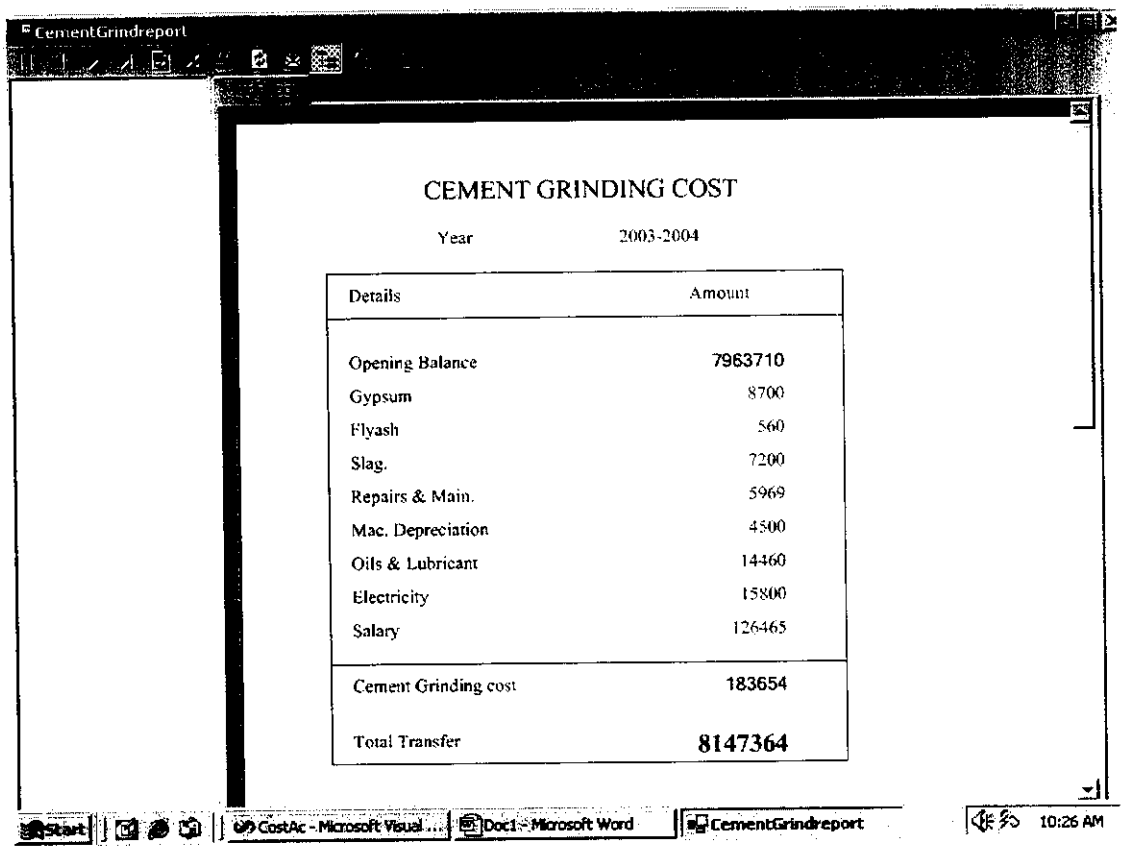
Amount
Details
Amount
Salary 589555
Wages 765
Stationary 18000
Repairs & Maint. 1200
Travelling 1500
Electricity 5980
Vehicle 2000
Postage 500
Printing 10000
Advertisement 50000
Sub Total 679500
Entertainment Exp. 5000
Legal Exp. 15000
Tax 100000
License fee 10000
Audit Fees 3000
Official Function 1500
Miscellaneous 8000
Rent Exp. 50000
Property Tax 5000
Printing 1500
Total 878500
Current Page No: 1
Start
CostAc - Microsoft Visual ...
Doc1 - Microsoft Word
adminreport
10:25 AM


CementGrindreport
CEMENT GRINDING COST
Year 2003-2004
Details
Amount
Opening Balance 7963710
Gypsum 8700
Flyash 560
Slag. 7200
Repairs & Main. 5969
Mac. Depreciation 4500
Oils & Lubricant 14460
Electricity 15800
Salary 126465
Cement Grinding cost 183654
Total Transfer 8147364
Start
CostAc - Microsoft Visual ...
Doc1 - Microsoft Word
CementGrindreport
10:26 AM