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Loan Management System of Muslim Commercial Bank of Dera Ghazi Khan, Pakistan

Saima Tasneem[1] Nadeem Iqbal[2]
1.Dept. of Computer Science, Indus International Institute DG Khan
2.GOLCER, Lancaster University Management School, UK

Abstract
The purpose of this research work is to develop the **Loan Management System**. The system will maintain the database of beneficiaries and allow efficient and rapid processing of various aspects of the system. It covers all the department of the purposed system. The system will facilitate all the employees and senior management of **Loan Management System for Muslim Commercial Bank**. In existing system it is very difficult to handle the large amount of requests at the same time by the number of users. The computerized system will ideal for solving complicated problems, storing a very large amount of data with ease and speed.. The tools for the project is VISUAL BASIC-6.0 selected to create front-end application. SQL Server 2000 will be used as backend and Crystal Report8.0 used for reporting **(Jill 2000).**
Keywords: loan management, bank system, MCB,computerized bank

Introduction

Loan Management system consists of the personnel, procedures, devices, and records used by and entity to develop Loan fingernail and to communicate this information to decision makers. The structure and capabilities of these systems vary greatly from one organization to the next. Loan system in common use range from simple manual system which are operated entirely by the business owner, to highly sophisticated systems which make use of computer, communications satellites, and large staff of professional accountants.

The accounts And Loan maintenance system of Muslim Commercial Bank that has been assigned to me is currently being running manually. After conducting the comprehensive study of the Loan Maintenance system of Muslim Commercial Bank Main Branch of D.G.Khan. This thing came in to view that the management has to fallow the complicated procedure in storing and retrieving the in formations about the record of loan that are running in the Bank.

So from the study it become clear that a computerized system is the need of the time to improve the efficiency.

The first step in converting the manual system to the computerized is to determine the nature and the scope of the problem, and where the problem actually lies. Therefore my scope of the study is merely the Muslim Commercial Bank Main Branch of D.G.Khan . In the fallowing the existing system of Bank is explained.

DRAWBACKS OF EXISTING SYSTEM

As in the manual Loan System, bookkeeping of records and transactions are done manually, hence it is very cumbersome and time consuming. The current system of MCB is manual system and following problems or drawbacks were found during the investigation:

FILE MAINTENANCE

Files are maintained manually in the present accounting system. With the growth of business organizations, file maintenance in this system is becoming more and more difficult and its storage needs lot of space.

INEFFICIENT UPDATING AND DELETION

Updation is a very important factor in record keeping because one always needs the late information for decision-making. The process of updating takes lot of time in Manual Loan System. The same problem is face while deleting the undesired records and many times the records to be deleted are not deleted for a long time.

LONG ACCESS TIME

Because of long access time the Manual Loan System affects the efficiency of management in making decisions.

STAFF REQUIREMENT

To maintain Manual Loan System we always require a large number of staff. It increase the labor cost because more staff require more salary.

STATIONERY WASTAGE

In the present Loan system huge amount of stationary is required for bookkeeping.

CHANCES OF ERRORS

There is always chance of duplication or overlapping of records.

INQUAIRY LIMITATIONS

The manual system modes the number of inquires limited. Whenever a new inquiry is created, a lot of effort is needed to answer it because a lot of file searching and manipulation is required**.**

Material, methods & Instrumentation

The choice of software is a very important to be considered during the development phase of the new system . After studying the nature of the problem and considering the need of organization, I have selected VB6.0 and database by using SQLServer2000 for database connectivity (**Martin 1990).**

The Computerized Standardized Loan System for MCB is developed after the complete analysis of the existing system. The replacement of existing manual system with proposed system was necessary to improve Performance

Advantages of the developed System

1. Efficiency

The efficiency of the system is improved by using the efficient and reliable database. Microsoft SQL server 2000 is used for system development Because SQL is the comprehensive language for controlling and interacting with the database system.

2. Accuracy

The results obtained from the system is accurate and reliable as the system is designed in the Visual Basic 60. And SQL server 2000 and both the Microsoft technologies and have the great compatibility with each other

3. Minimum Redundancy

The developed system is minimize the data redundancy because files are designed in such a way that there is no data duplication in the files

4. Time Factor

Since manual calculations require a lot for little work the proposed System overcome this factor by calculation making efficiently

5. Security

Since SQL provides higher level of security that is why SQL is used to make it possible that the proposed system will provides the high level of security.

6. User Friendly

The program interactively provides the great deal of run time help to its user to make user friendly so that the user can make the faster data entries and get the maximum results.

7. Report Generation

Since report generation is the main purpose of the database project so the Developed system is produce the large number of necessary reports that provides great deals of informations to the customers relating to his account loan or transactions. It also helps the user to get the updated and in time information so that the user can get the maximum result from minimum of effort. This is make the project according to the user requirements.

Design Specification

System designing is consisting of three steps.

- Output Design
- Input Design
- File Design

Output Design

The developed system can produce the output in the form of reports and queries. Some of the features are to consider in this aspect.

- What output informations does the user require ?
- What format the report should have?
- The outputs should be easy to understand.
- Unnecessary informations should be avoided.
- Output should be well looking and simple.

Input Design

Designing of input mainly involves the form designing. the input designing of the proposed system is done in two steps.

I. Code Designing
II. Form Designing

Code Designing

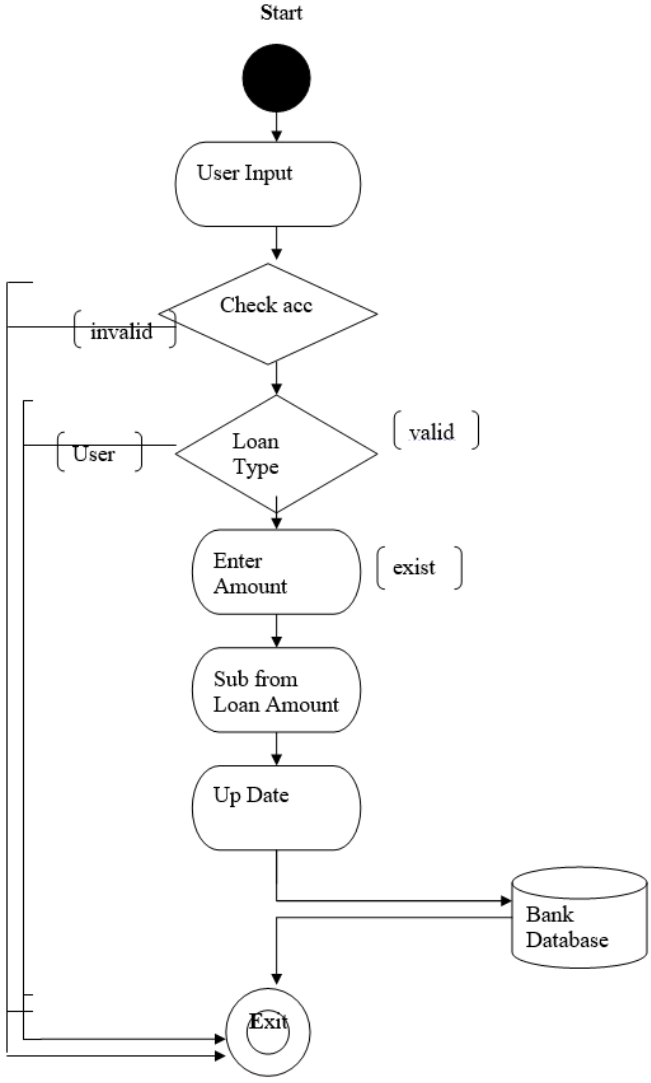
The inputs or the informations that are going to repeat regularly and takes large space in the tables given the certain codes . and these codes are used for the faster retrieval of the data, to increasing the efficiency and to minimize the storage location. **(Pankaj Jalote 2005).**

Form Designing

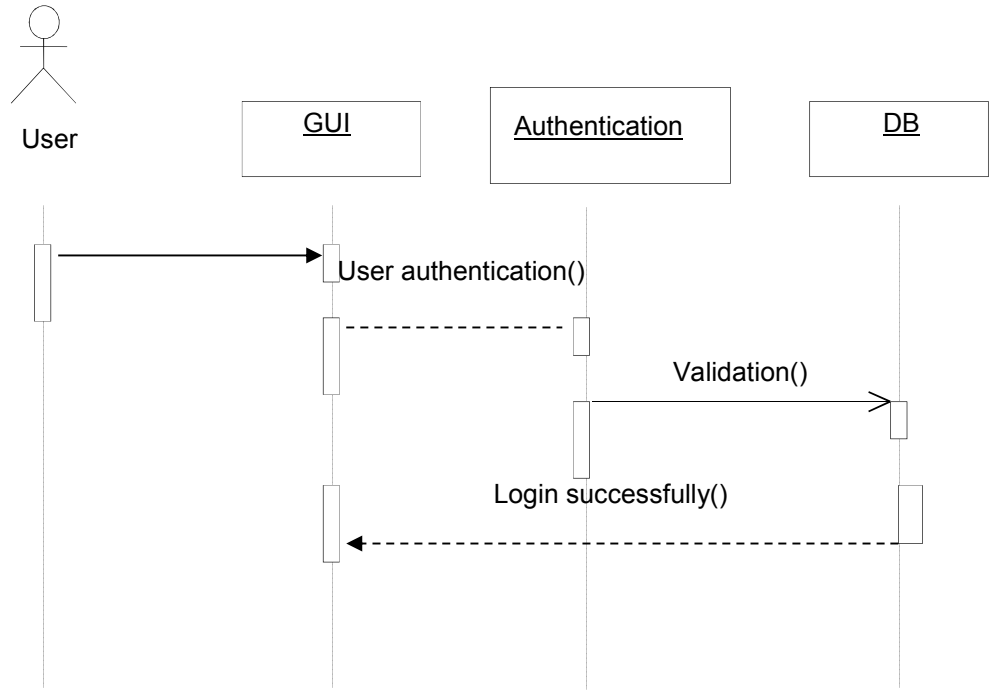
Since input plays the important role in the data storage, so to get the maximum result and with minimum efforts. There forms should be carefully designed. So keeping in mind the above consideration fallowing forms are designed.

- Account opening form
- Account modifying form
- Cash withdraw form
- Cash withdraw modifying form
- Cash deposit form
- Cash Deposit modifying form
- Cheque book issue form
- Cheque book modifying form
- Close account form
- Loan application form
- Loan recovery form
- Loan payment form
- Transfer Form
- Loan modifying form
- Recovery modifying form
- Payment modifying form

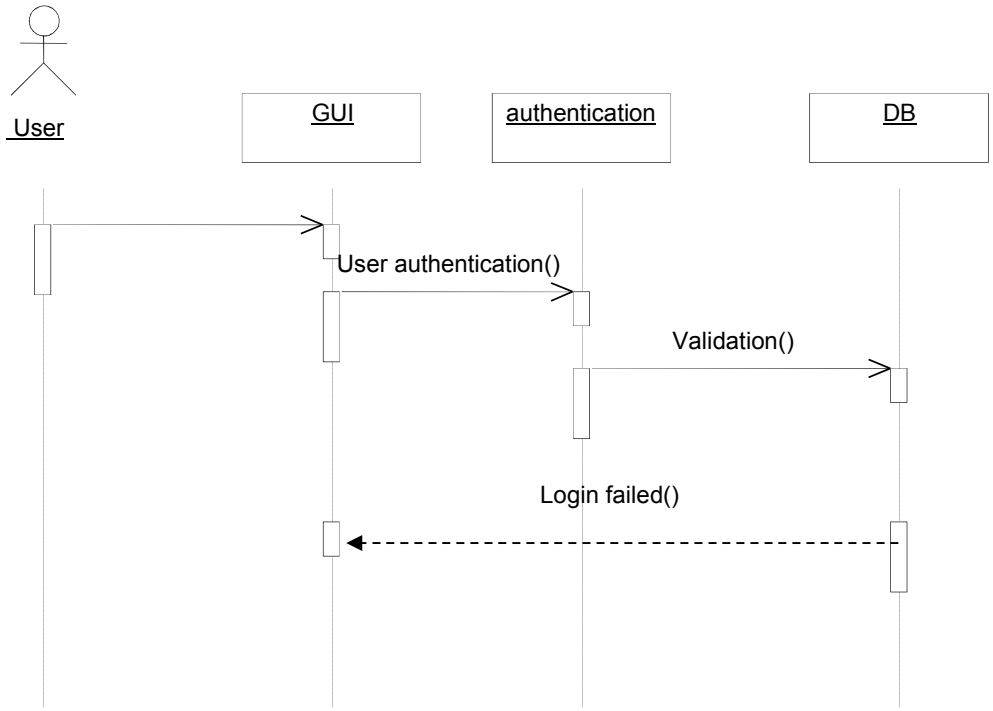
Activity Diagram: Entering User Record



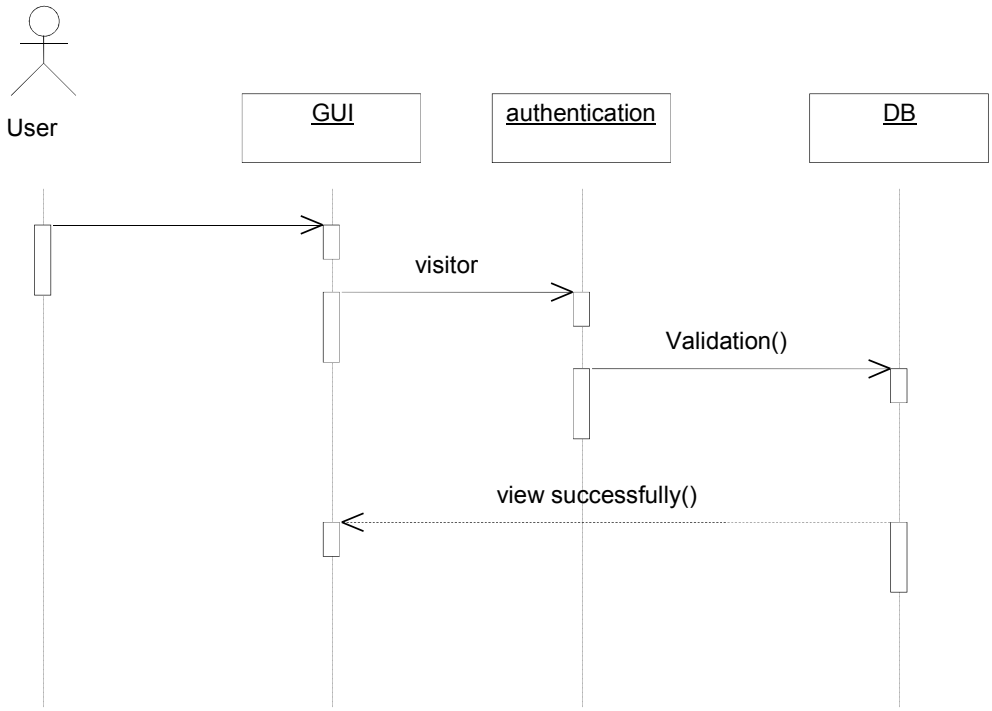
Sequence Diagram: (Normal Sequence)



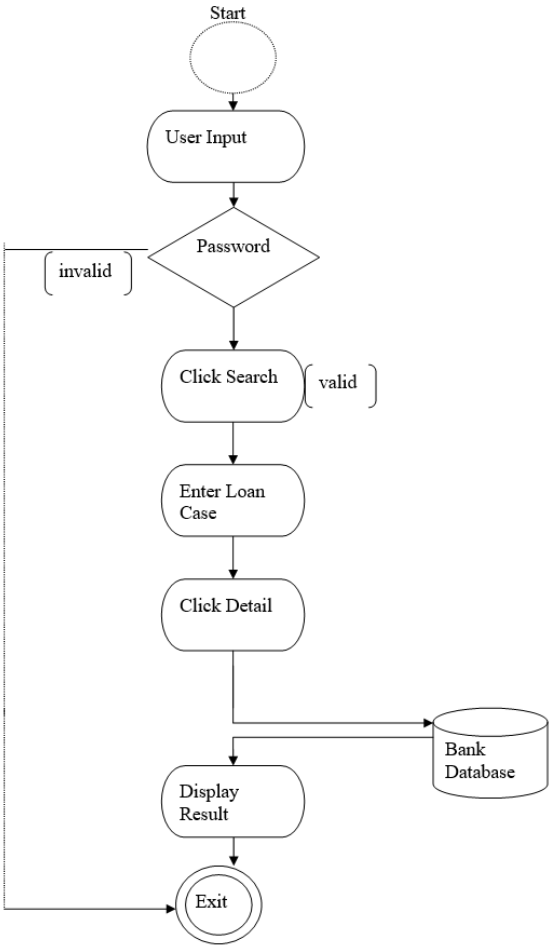
Alternate Sequence Diagramme



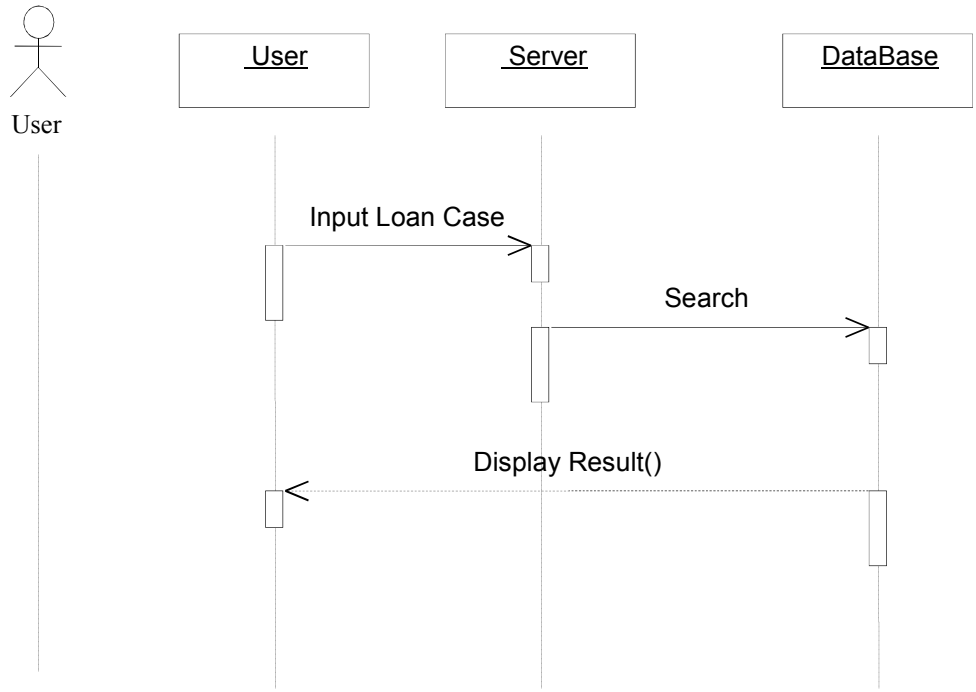
Sequence Diagram For Visitor



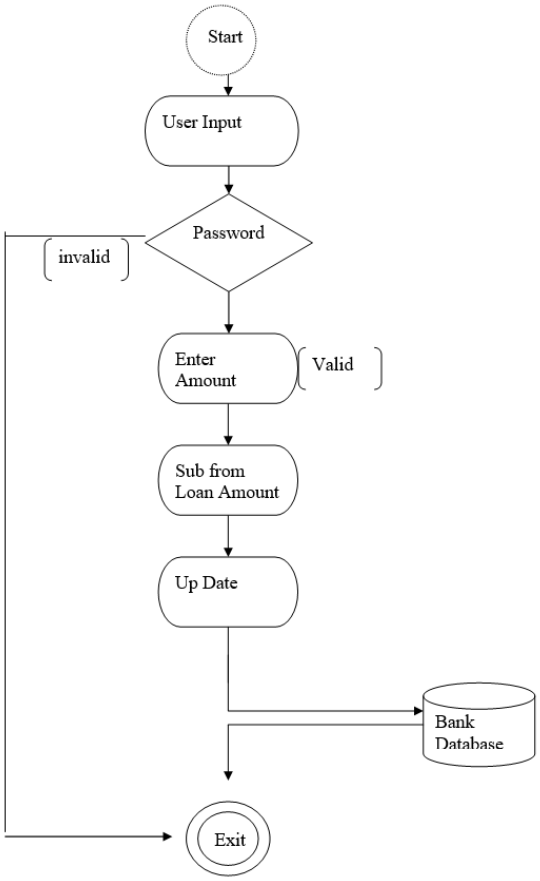
Activity Diagram: For Details of Loan



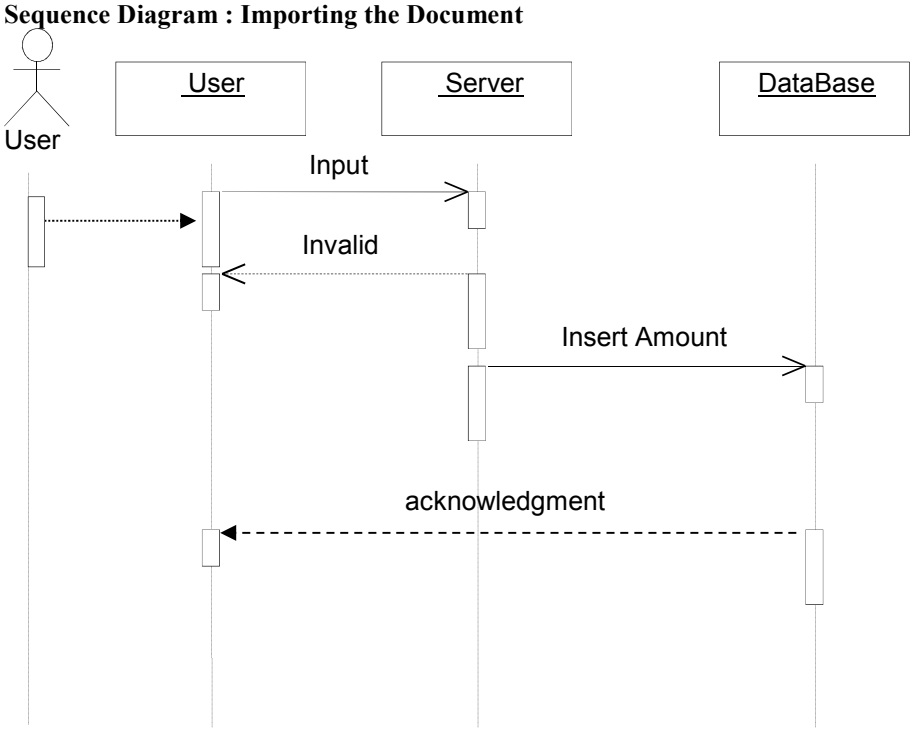
Sequence Diagram to Search Details of Sactioned Loan



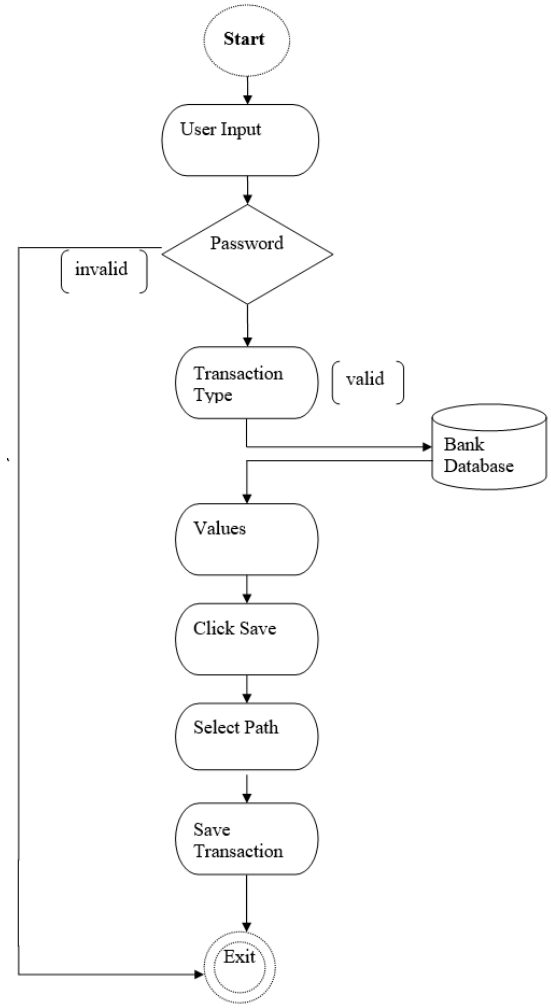
Activity Diagram: Loan Recovery



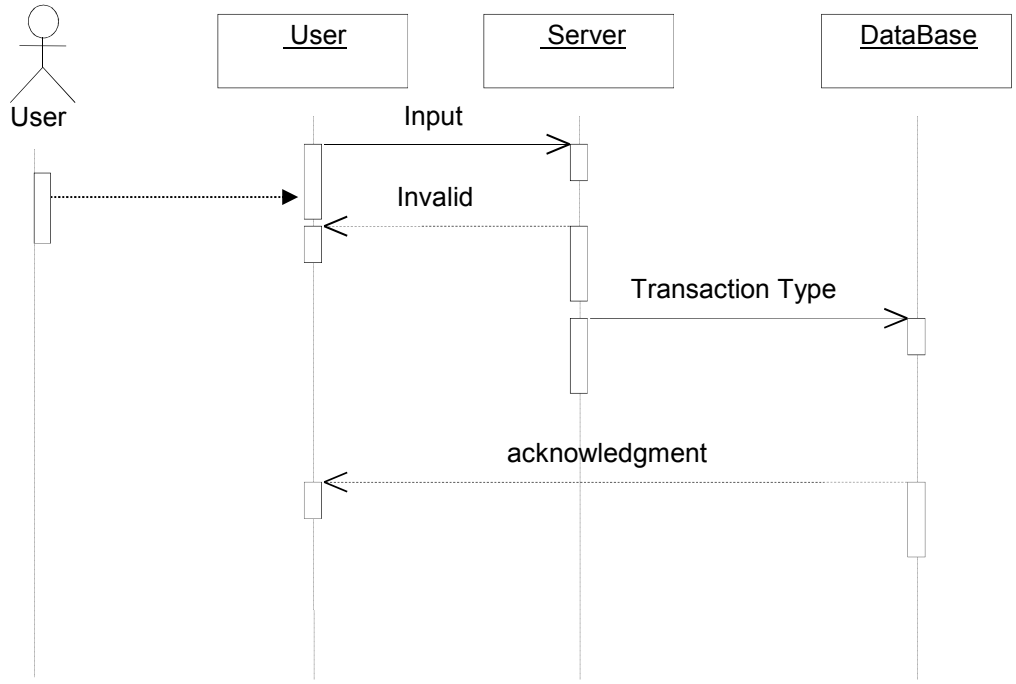
Sequence Diagram : Importing the Document



Activity Diagram: Exporting the Transaction



Sequence Diagram for Transaction Information



File Design

File designing is of fundamental significance in development of efficient computerized system. files are designed such that reports and queries are produced in least amount of time. The most importantly there should no data redundancy or inconsistency in files. Following steps are acquired for this purpose.

Identifying The Entities

Our job is to group the entities and attributes, so fallowing are the tables with their respective attributes.

ACCOUNT

[account number], [account type], [opening date], [initial deposit], [operation mode],
status

CUSTOMER

[customer id], name, [father name], [NIC number],[date of birth], occupation, address, nationality, [phone number]

CHEQUE BOOK

[account number], [account type], [issue date], starting, ending, and leaves

CHEQUE DETAIL

[account number], [account type], [chq number],[trans date],[balance before], amount, [balance after]

CLOSING ACCOUNT

[account number], [account type], [closing date],fee

COMPONY

[company id], name, NTN, [phone number], fax, address

Transaction

[account number], [account type], [trans date], amount, db/rebalance

LOANINFO

Loan_case, Dat, G_id, Ins_rate, Am_sen, G_period, Instalments, R_period, [Loan type], auth_code

CLIENTINFO

Cus_id, Name, Fname, NIC, Age, Sex, Village, Address, Phone, Occ

GUARANTIED

Loan_id, G_name, G_id,G_value

Account

Loan_case, Acc_no, Acc_type

TRANSHISTORY

Loan_case, Trans_dat, particulars, Trans, Amount, balance

Software Selection

In conversion of manual system into computerized processing system a program was needed to developed software development is the special and important phase. Special care is the taken while selection of the software. The main purpose of this phase was to develop the software that meets the user needs. So the selection of the language

depends on the problem in hand. So keep in mind these requirements I used fallowing software to develop the software. **(Roger 2001).**

- Microsoft Visual Basic 6.0
- Microsoft SQL Server 2000
- Crystal Reports 9

Hardware Considerations

The proposed system was designed for the fallowing hardware,

- IBM Pc or compatible machine with 64MB of ram and 8GB of storage Device(Hard Disk)
- VGA Color Monitor
- Printer for reporting(hard copy)
- LAN cards for networking (10/100 bps)
- UTP Cable (Cross Cable).

Conclusion

The new developed computerized is user friendly, reliable and easy to use. The drawback of the existing system is eliminated as following objective has been achieved.Data integrity and consistency has been ensured.Different modules of the system are made in such way that data is readily available to the user.

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