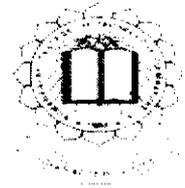


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TRANSPORT MANAGEMENT SYSTEM

By

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A PROJECT REPORT

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For the award of the degree

of

MASTER OF COMPUTER APPLICATION

June, 2005

BONAFIDE CERTIFICATE

Certified that this project report titled

Transport Management System

Is Bonafide work of

Mr. S.SRIDHARAN (Reg. No: 71202621045)

Who carried out the research under my supervision. Certified further, that to the best of my knowledge the work reported herein does not form part of any other project report or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.


Project Guide


Head of the Department

We examined the Candidate with University Register No. 71202621045

in the project Viva-Voce examination held on 23-06-2005


Internal Examiner


External Examiner 23/6/05

ABSTRACT

Transport Management System (TMS) provides a sophisticated tool to manage the various services that are being carried out in a transport company. This system replaces the existing system in a transport company that is done manually. Information like bus details, lorry details, transport employee details, ticket reservation and collection details, maintenance and expenses details, sales and purchase details are being put in this system.

The main goal of the project is to automate the activities of a transport company. Transport services that deal with a lot of information that is difficult to handle it manually by collecting and recording all the data in papers. This tool provides various services like managing and organizing all information that are related to bus and lorry details, booking and canceling a ticket, employee details, and maintaining the various expenses that takes place in the transport system.

Managing bus details also includes adding new bus information; Reservation of tickets includes booking and canceling travel tickets, booking tour buses and lorries for carrier; information related to purchase and sale of new vehicles related to the transport, Maintaining all expenses that takes place in a day-to-day routine of a transport system.

This project can be extended to generate reports for all the services provided by the Transport Management System and a search option to present the necessary information needed by the user. This project was developed using VB.NET as the front end, SQL Server as the back-end.

ACKNOWLEDGEMENT

At this pleasing moment of having successfully completed the project work, I wish to acknowledge my sincere gratitude and heartfelt thanks to our beloved Principal **Dr.K.K.Padmanabhan B.Sc., (Engg), M.Tech., Ph.D.**, for having given me the adequate support and opportunity for completing this project work successfully.

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CHAPTER 1

INTRODUCTION

In this chapter a detailed description of the organization for which the system was developed is given. The chapter gives an overview of the system and the functionality of the system. It also specifies the system environment used in the development of the proposed system. A brief introduction on various technologies used in the development of the system is also provided.

1.1 PROJECT OVERVIEW

Transport Management System (TMS) provides a sophisticated tool to manage the various services that are being carried out in a transport system. This system replaces the existing system in a transport corporation that is done manually. Information like bus details, lorry details, transport employee details, ticket reservation and collection details, maintenance and expenses details, sales and purchase details are being put in this system.

Managing bus details also includes adding new bus information; Reservation of tickets includes booking and canceling travel tickets, booking tours buses and lorries for carrier; information related to purchase and sale of new vehicles related to the transport; maintaining all expenses that takes place in a day-to-day routine of a transport system.

This project can be extended to generate reports for all the services provided by the Transport Management System and a search option to present the necessary information needed by the user.

The following are the main modules in the Transport Management System:

- Bus detail
- Lorry detail
- Reservation and cancellation detail
- Collection detail
- Sales and Purchases details
- Maintenance and Expense detail
- Employee detail

1.1.1 Project Scope

Goal:

The goal of the project is to automate the activities of a transport company which maintains buses & lorries. It also deals with features like booking and canceling travel tickets and maintenance of all company activities.

Purpose:

This project overcomes the tediousness of the manual work done by recording the data and organizing it in a very effective way, so that it will be easier to search for the information needed.

Benefits:

The advantages of system are;

- Eliminate the manual labour involved in recording and organizing all the details of a transport company.
- Provides clear information to the management for all activities that takes place in the organisation.
- Maintain the daily income and expense for all buses and lorries.
- Providing centralized storage for all transport company services.
- Reservation and cancellation for tours, travels, buses and lorries.

1.2 ORGANIZATION PROFILE

Kaveri Infosys is the Indian strategic partner of the Infosys, Inc. Chicago. IL. U.S.A. Kaveri Infosys is one of the leading providers of Windows-based software solutions for the healthcare. Incorporated in November 1995 and situated in Chennai.

Vision

Great product Great place Great people

Focus

The company has been totally focused on software development for the healthcare industry. It has all along been a leading provider of integrated software system for healthcare automation services.

They are committed to provide error free software through continual improvement. They maintain highly competent human resources so that the customer's requirements are always met.

Services

The Company currently is providing software product development and research and development services to their Principal InfoSys, Inc., US. The future plan will include offering services across the entire spectrum of technology-based services.

Products

Kaveri Infosys solutions are designed to eliminate fragmentation of information management through a revolutionary systems architecture that accommodates unique clinical, financial and administrative business processes found in various segments of the ambulatory and post-acute. Kaveri Infosys healthcare software suites include:

- a. **MedSys Ambulatory/Acute** applications for physicians, rehab/therapy facilities and small hospitals and;
- b. **HomeSys Post-acute** solutions comprised of long-term care and hospice configurations.

CHAPTER 2

SYSTEM REQUIREMENT AND SPECIFICATION

2.1 HARDWARE REQUIREMENTS

- Processor : Intel Pentium
- Processor : 500 MHZ
- Memory : 96 MB RAM
- Hard Disk : 10 GB

2.2 SOFTWARE REQUIREMENTS

- Operating System : Windows 2000/xp/NT Server
- Programming Language : VB.NET
- Database Server : Microsoft SQL Server 2000

2.3 SOFTWARE OVERVIEW

What is Microsoft .NET?

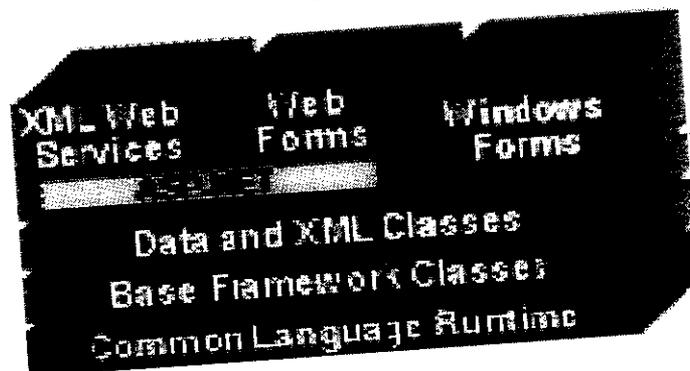
Microsoft .NET is software that connects information, people, systems, and devices. It spans clients, servers, and developer tools, and consists of:

- The .NET Framework used for building and running all kinds of software, including Web-based applications, smart client applications, and XML

- Web services—components that facilitate integration by sharing data and functionality over a network through standard, platform-independent protocols such as XML (Extensible Markup Language), SOAP, and HTTP.

What is the .NET Framework?

The .NET Framework is a development and execution environment that allows different programming languages & libraries to work together seamlessly to create Windows-based applications that are easier to build, manage, deploy, and integrate with other networked systems.



The ADO.NET classes enable developers to interact with data accessed in the form of XML through the OLE DB, ODBC, Oracle, and SQL Server interfaces. XML classes enable XML manipulation, searching, and translations. The ASP.NET classes support the development of Web-based applications and Web services. The Windows Forms classes support the development of desktop-based smart client applications.

Reasons for Using VB.NET

- **Seamless Deployment.** VB .NET promises to end "DLL Hell" and it may. I haven't experimented with it much yet but I've heard mixed

reviews. Probably it will be better once we're used to it. It can't be a whole lot worse.

- **More Robust Code.** The features they list here are the real-time background compiler (to check syntax as you type) and the task list. Neither of these is a big step beyond VB 6. They also list strict type checking (which is good) and structured error handling. Structured error handling is really just more like the way it works in C/C++. It has some advantages but also some big disadvantages such as no Resume statements and no On Error Resume Next capabilities.
- **Simplified Component Creation.** The Toolbox now includes more non-visual components (sort of like the Timer control) for things like database connection, DataSet, message queues, etc. It's not hard to create these objects in your code. Putting them on the form lets you do a bit more design-time configuration for them so this isn't a bad thing, it's just no big deal.
- **Enhanced Control Creation.** They don't say much here. It's true that VB .NET lets you build user controls. I haven't seen any big advantages over how it works in VB5/6 but I haven't spent a huge amount of time on this. One BIG disadvantage is the user control object (and the PictureBox and Form for that matter) no longer have an AutoRedraw property. If you want AutoRedraw, you need to implement it yourself with your own bitmap buffers.
- **Integrated Reporting with Crystal Reports** (Professional edition and above). This lets you manipulate Crystal Reports within the IDE. I suppose you might care if you use Crystal Reports a lot.

2.4 Database Design

Transport Management System uses Microsoft SQL Server 2000 as its Backend. Microsoft Extends the Performance, reliability, quality and ease-of-use of Microsoft SQL Server version 7.0. Microsoft SQL Server 2000 includes several new features that make it an excellent database platform for large-scale online transactional processing (OLTP), data warehousing, and e-commerce

Application:

Features of SQL server 2000

Microsoft SQL server 2000 features include:

- Internet integration
- Scalability and Availability.
- Enterprise-Level Database features.
- Ease of installation, deployment, and use.
- Data Warehousing.

Database Architecture

Microsoft SQL server 2000 data is stored in database. The data in a database is organized into the logical components visible to users. A database is also physically implemented as two or more file on disk.

Each instance of SQL server has four system database (MASTER, MODEL, TEMPDB, and MSDB) and one or more user database. Some organizations have only one user database, containing all the data's for their

organization. Some organizations have different database for each group in their organization, and sometime a database used by a single application. For example, an organization could have one database for sales, one for payroll, one for a document management application, and so on. Sometime an application uses only one database; other applications may access several databases.

It is not necessary to run multiple copies of the SQL Server database engine to allow multiple users to access the databases on a server. An instance of the SQL server standard or Enterprise Edition is capable of handling thousands of users working in multiple databases at the same time. Each instance of SQL server makes all databases in the instance available to all users that that connect to the instance, subject to the defined security permissions.

When connection to an instance of SQL server, your connection is associated with a particular database on the server. This database is called the current database. You are usually connected to a database define as your default database by the system administrator, although you can use connection options in the database APIs to specify another database. You can switch from one database to another using either the Transact-SQL USE database name statement, or an API function that changes your current database context.

SQL server 2000 allows you to detach databases from an instance of SQL server, then reattach them to another instance, or even attach the database back to the same when you connect to attach that database file with a specific database name.

2.5 SPECIFICATION

Platform Specification: Operating System

An Operating System is a Collection of Computer program that control, how the computer works. It can also be defined as the software, which acts as a traffic cop, directing requests and information to add from the various devices within a single PC. The OS handles disk requests (read and write) keyboard translations, memory accesses, peripheral accesses and much other function.

Windows 9x: Windows 9x is a desktop operating system. It runs on Intel/Cyrex/AMD processors. It support file system FAT32 (NRWF), VFAT (NRWF). Also integrated with DOS for command line interface and explore for graphical user interface. It supports multimedia applications and Internet applications.

Windows NT: This is a network operating system. This is based on the Client-Server architecture. Benefits of Windows NT are;

- More intuitive interface.
- Better multitasking and multithreading.
- Clients can be attached to workstations.
- Higher level of security.
- NTFS-a powerful NT File System.

The services it provides are designed to address customer requirements and are managed in a single way. It offers a complete end-to-end solution. It gives the ability to exploit the popularity of compatible third party products and such application as Active Server pages, for dynamic content web pages or Server for specialized database tasks and web server for web services.

CHAPTER 3

SYSTEM ANALYSIS



3.1 EXISTING SYSTEM

The existing system records the data manually, by getting the information from the concerned person (like conductors) for each and every activity that takes place. This is a tedious process for the management to record and organize the information manually.

On the other hand, the management needs to organize information like sales and purchases of vehicles, tyres and various accessory replacements, employee details etc.,

3.2 PROPOSED SYSTEM

The proposed idea is the need for a computerized system to reduce the manual work, by using computerized maintenance of the company details & other details.

It maintains huge volume of data without much loss of data. Here, it provides better query handling than the existing system. The data accessing is much faster. They help for faster business transactions and it helps in effective utilization of the manpower resources thus generating a better turnover.

The system provides efficient support for reservation for travels, lorry and tourism. The data maintenance is effective and accessing the data is done faster.

3.3 PROTOTYPE

Planning the software development process involves several important considerations. The most important consideration is to define a product life-cycle.

The software life cycle encompasses all activities required to define, develop, test, deliver, operate, and maintain a software product. Different models emphasize different aspect of the life cycle, and no single life-cycle model is appropriate for all software products. Life-cycle models used are the phased model, the cost model, the prototype model and the successive versions model.

3.3.1 The Prototype Life-cycle Model

Prototype is a mock-up or model of a software product. A prototype incorporates components of the actual product. Typically, a prototype exhibits limited function capabilities, low reliability, and inefficient performance.

There are several reasons for developing a prototype:

- To illustrate input data formats, message, reports, and interactive
- Dialogues for the customer. This is used to explain various processing option to the customer and to gain better understanding of the customer's needs.
- To explore technical issues in the proposed product.

The nature and extent of prototype to be performed on particular software is dependent on the nature of the product. New versions of existing products can most likely be developed using the phased life-cycle model with little or no prototyping. Development of a totally new product will probably involve some prototyping during the planning and analysis phase or the product may be developed by iterating through a series of successive designs and implementations.

CHAPTER 4

SYSTEM DESIGN

4.1 ARCHITECTURAL DESIGN

Architectural Design is concerned with refining the conceptual design of the system, identifying internal processing functions, decomposing high level functions into sub functions, defining internal data streams and data stores and establishing relationships and interconnections among functions, data streams and data stores.

4.1.1 Transport Management System – Module Overview

TMS consists of the following modules:

- Bus detail
- Lorry detail
- Reservation and cancellation detail
- Collection detail
- Sales and Purchases details
- Maintenance and Expense detail
- Employee detail

BUS DETAILS:

This module records information for all the buses available in the company. It also provides features like modifying the existing bus information. Various details like; Route, Permit Number, Permit Date, Insurance Dates, Type of bus, No of seats are used.

LORRY DETAILS

This module stores information about all lorries and the trips they make. Details like Registration number, lorry capacity, lorry permit date, lorry insurance dates, type of lorry, permit type are used to record all details. Using the reservation module, these lorries can be booked well in advance.

EXPENSES DETAILS

This module lists all the expenses that take place in the overall transport company. The expenses related to

- Various accessories like tyres, spare parts and other vehicle accessories.
- Diesel and oil consumption.
- Daily wages to the drivers, conductors, cleaners, and other services.
- The management can easily calculate the total expenses that occur daily.

The expenses module also records the maintenance details. Information like tyre maintenance and other transport maintenance services are also stored.

EMPLOYEE DETAILS

The employee details contain the information like employee name, employee identification, designation, license number and the expired date of the license number for all drivers. Employees include drivers, conductors, cleaners, and management staffs etc.

COLLECTION DETAILS

The daily collection and monthly collection of the vehicles are recorded in this collection details. From this module, the management can easily identify the profit or loss make. The daily collection acting as the master form, from which we can view the trip collection and total expenses that occur in the transport company.

RESERVATION CAN CANCELLATION DETAILS

This module records various information like;

Travels ticket reservation and cancellation.

The passenger can book and cancel the ticket for any travels. The user can specify details like; Date of journey, Departure time, Number of seats and the seat number, Advance amount etc. Cancellation chares will be taken when a ticket is cancelled.

Tours ticket reservation and cancellation

The tour tickets can be booked and cancelled for any tourists travel concern. Advance pay is a must at the time of booking the tickets. The user can specify details like; Date of journey, Departure time, Number of seats, Advance amount, Total pay for the tour, etc., Contact details of all the travel persons or to any particular person.

Lorry booking and cancellation

Carriage lorries can be booked. The person has to specify the mandatory fields for booking lorries like; specification for the carriage (mini, full body). Details regarding to the load and the total weight of the transport goods. Buyer's details and senders details are needs to specify to ensure the delivery of the goods.

PURCHASE AND SALES DETAILS

The transport company will buy many new and second-hand vehicles. So it is necessary to differentiate the type of purchase and the details related to the purchase and sales of vehicles. Other details like;

At the time of purchase and sales; route name, permit number, FC date, Insurance date, total cost, sellers details will be recorded.

4.2 DATA FLOW DIAGRAMS

Data flow diagrams (DFD) are commonly used during problem analysis and design. A DFD shows the flow of data through a system. It views the system as a function that transforms the inputs into desired outputs. A DFD aims to capture the transformation that takes place within a system into output data so that eventually the output data is produced. The agent that performs the transformation of data from one state to another is called a process (Bubble). Named circles show the processes and dataflow are represented by named arrows. A square defines a source or destination of system data. An open rectangle is a data source.

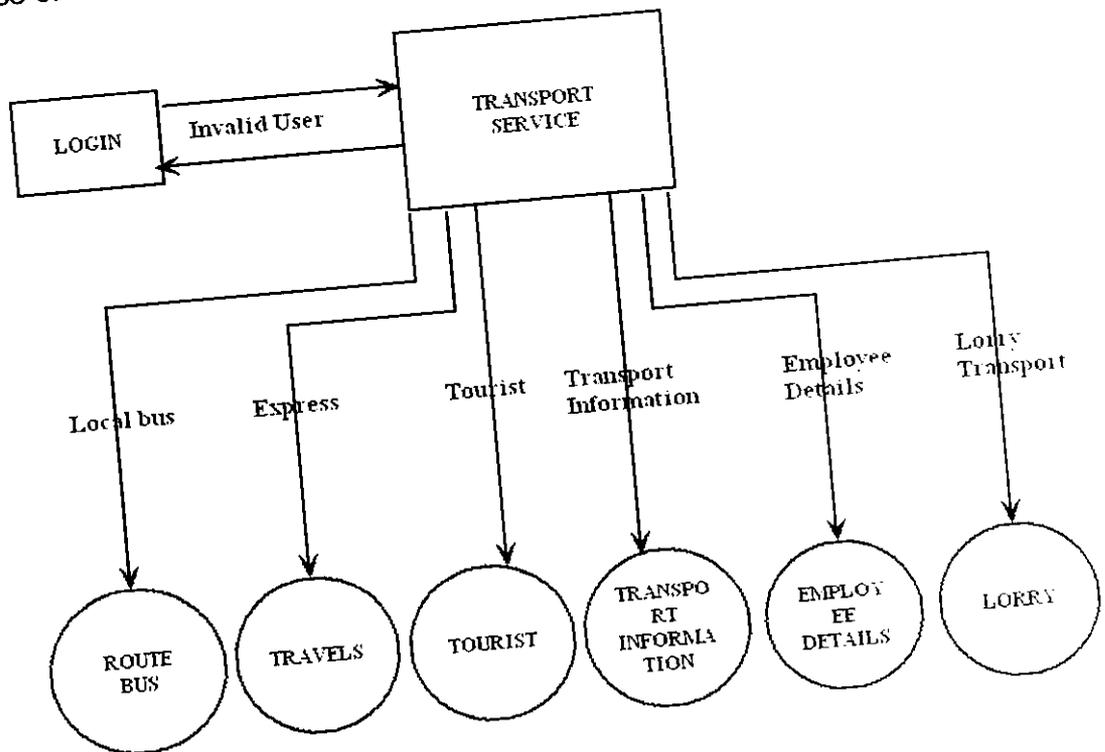


Figure 4.3.1 Process Flow Diagram

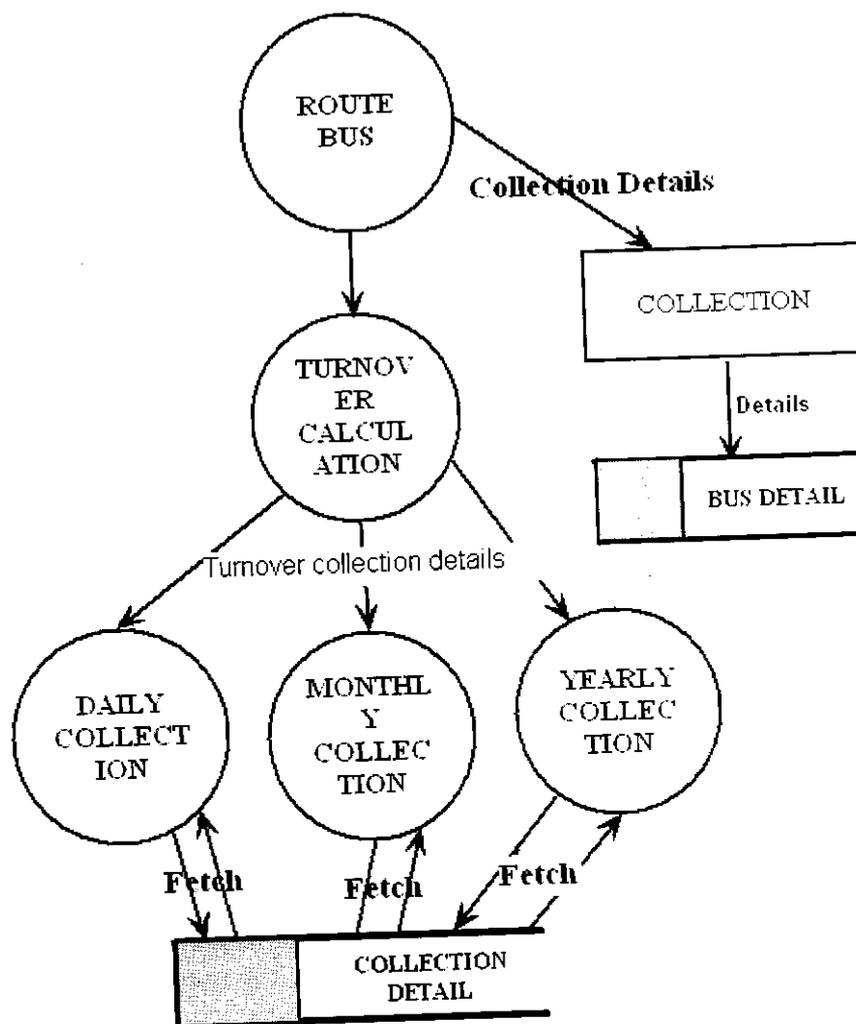


Figure 4.3.2 Data Flow Diagram - Route Bus

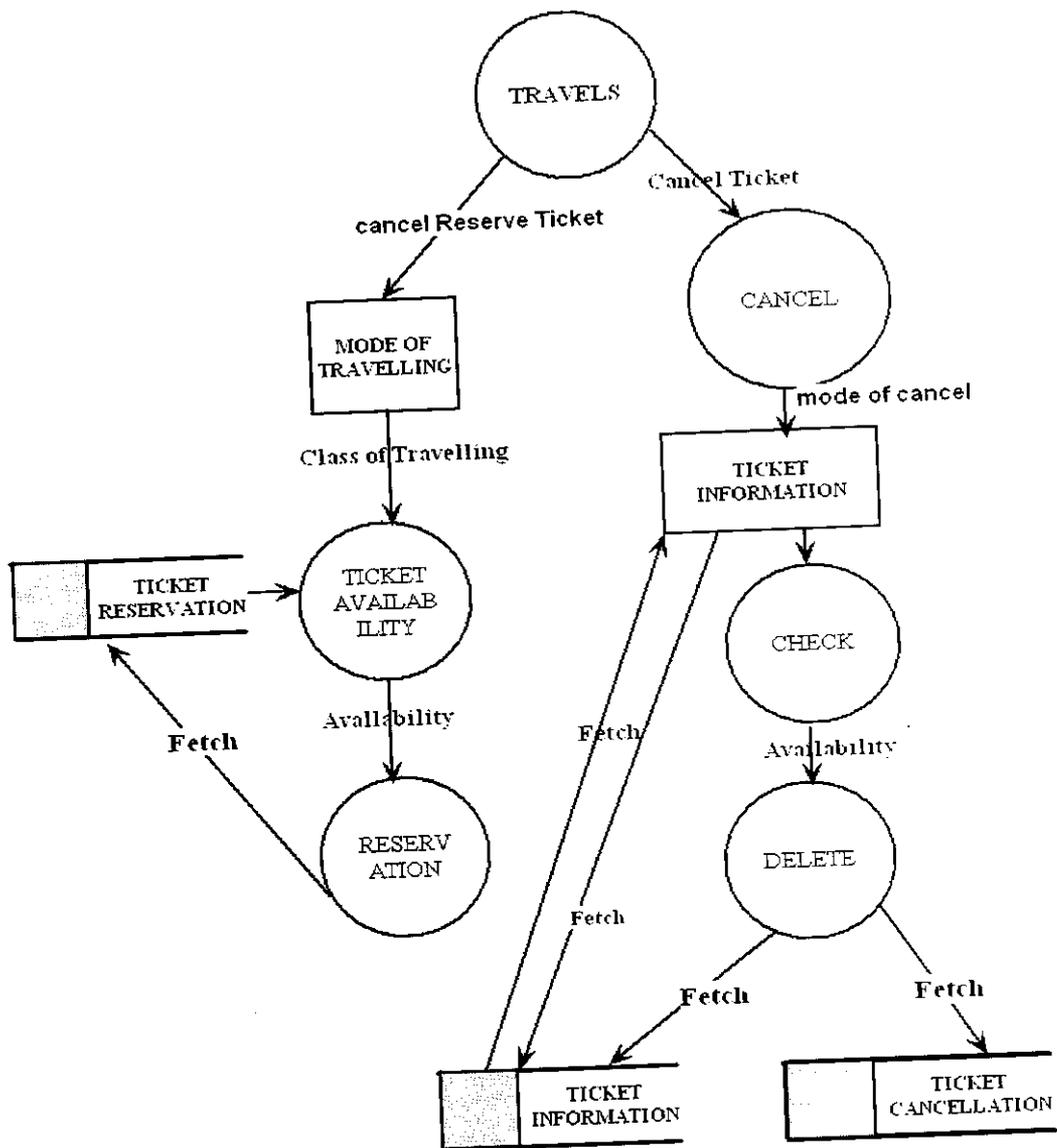


Figure 4.3.3 Data Flow Diagram – Travels

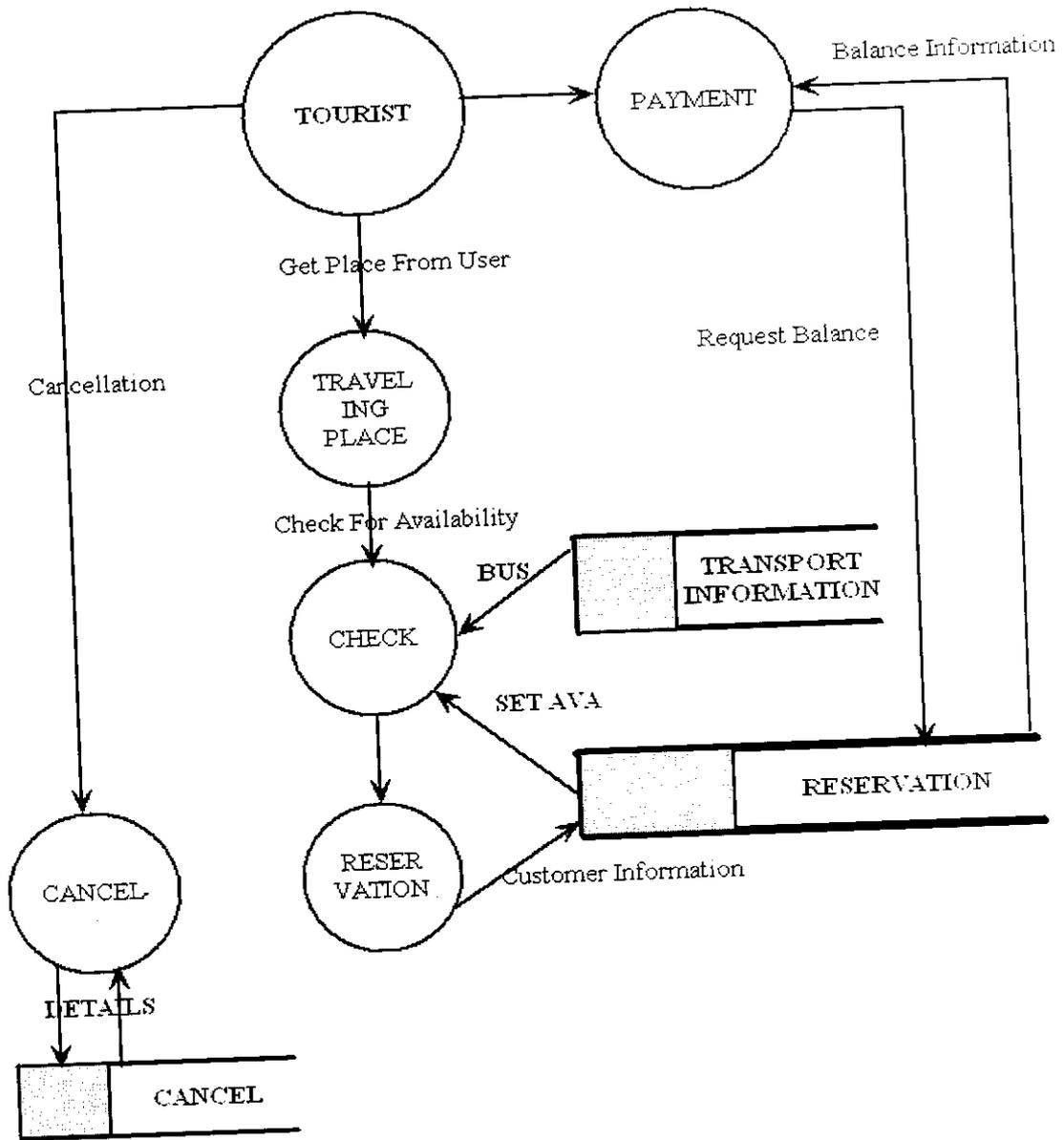


Figure 4.3.4 Data Flow Diagram - Tourist Bus

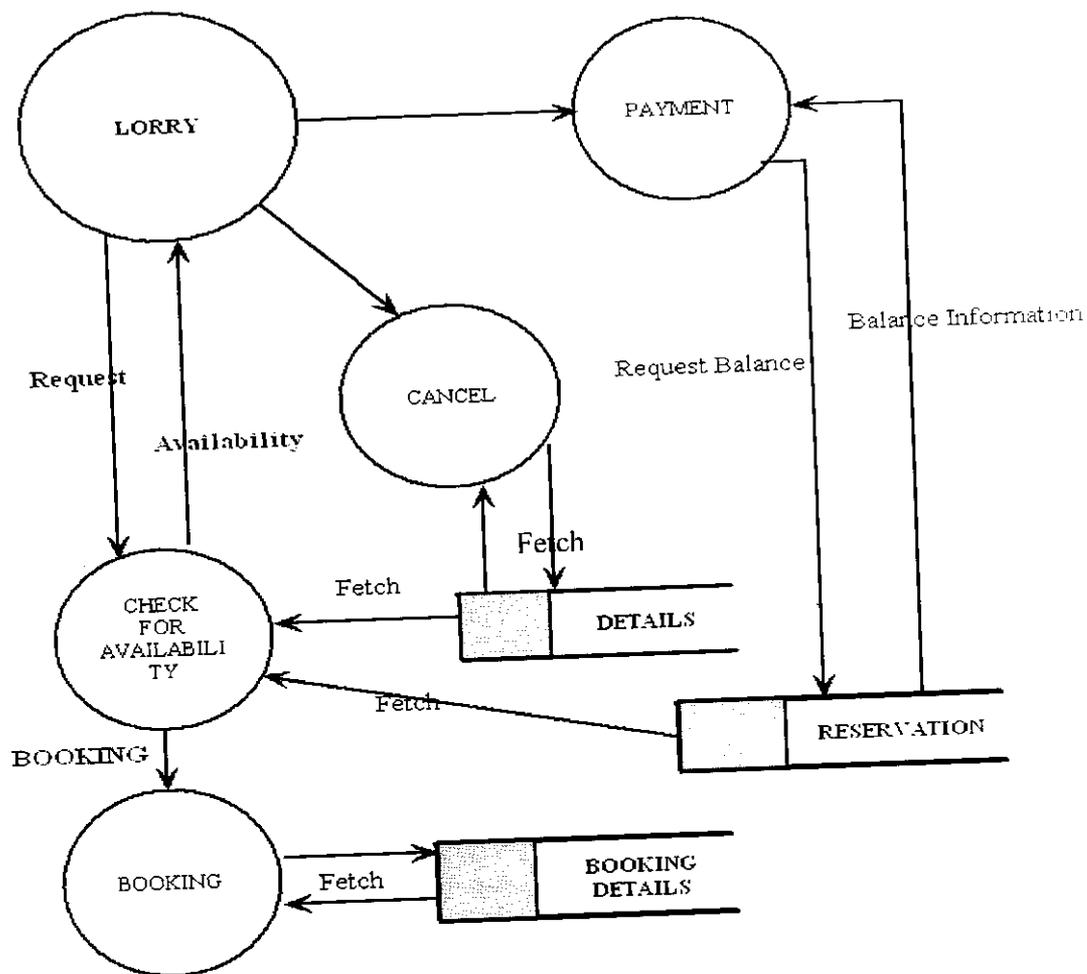


Figure 4.3.5 Data Flow Diagram - Lorry

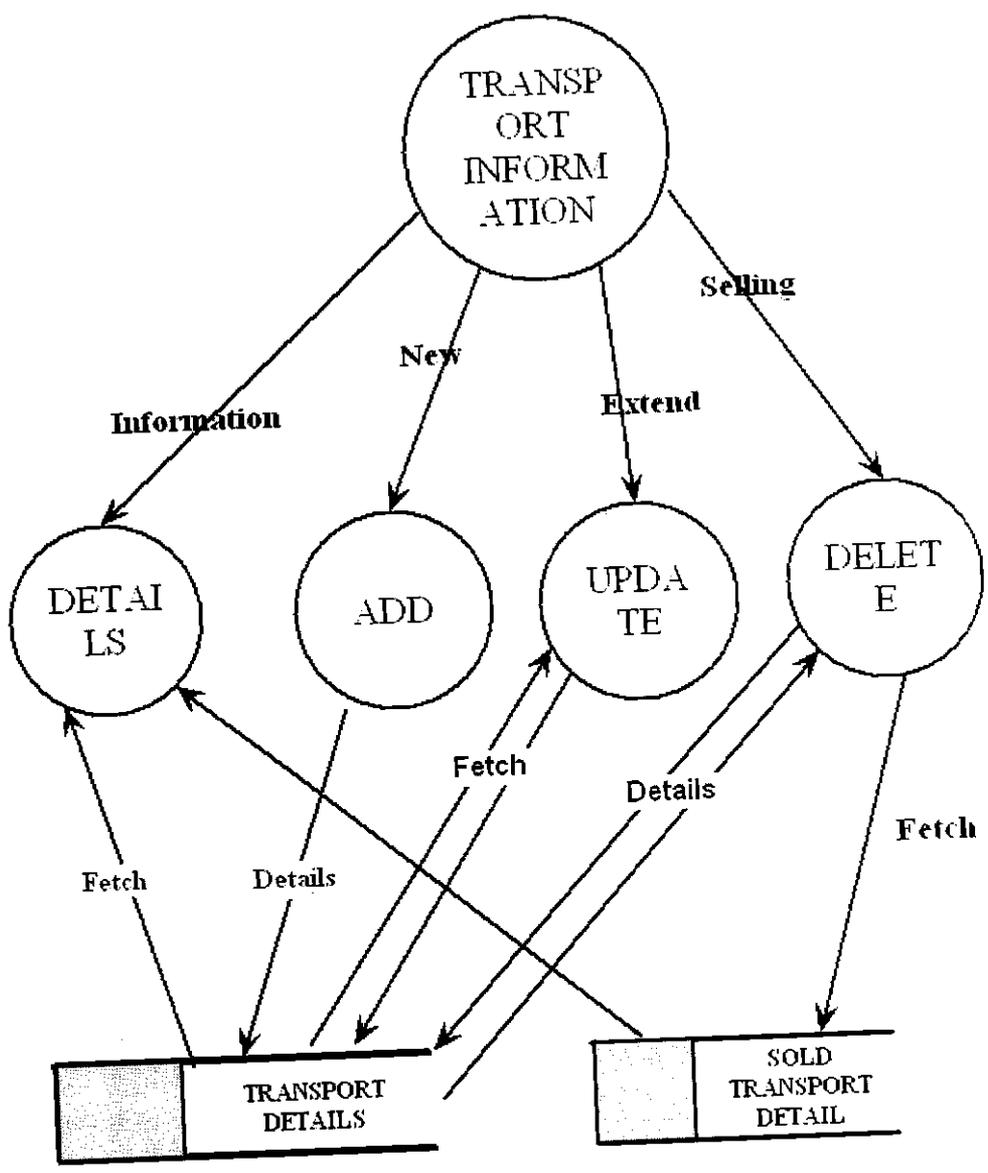


Figure 4.3.6 Data Flow Diagram - Transport Information

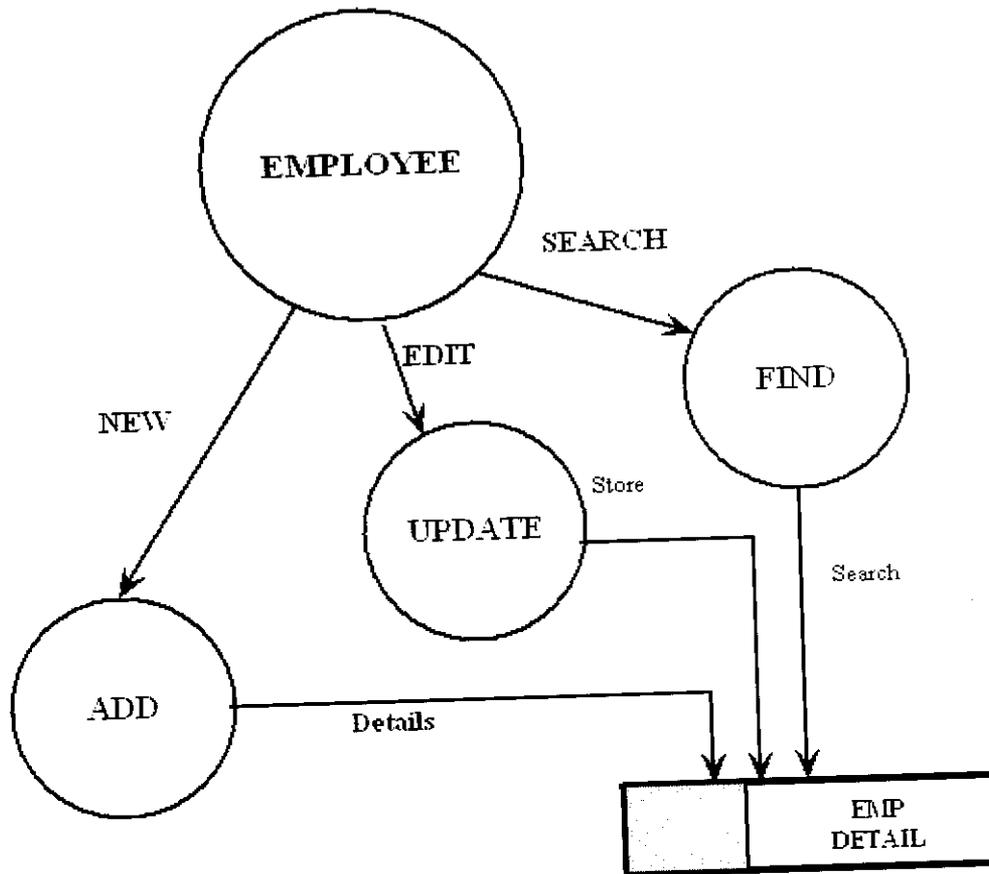


Figure 4.3.7 Data Flow Diagram - Employee Details

EMPLOYEE DETAILS			
S.NO	FIELD NAME	KEY	DATA TYPES
1	Emp_Id		Number
2	Emp_Name		Text
3	Experience		Number
4	Licence_No		Number
5	Date of Joining		Date/Time
6	Emp_Address		Text
7	Phone_No		Number
8	Salary		Number

DAILY EXPENSES			
S.NO	FIELD NAME	KEY	DATA TYPES
1	Reg_No	Foreign key-bus,lorry	Number
2	Date		Date/time
3	Diesel		Number
4	Oil		Number
5	Driver		Text
6	Conductor		Text
7	Cleaner		Text
8	Union_Expenses		Number
9	Brocker Commision		Number
10	Pooja		Number
11	Others		Number
12	Total		Number

TRAVELLER DETAIL			
S.NO	FIELD NAME	KEY	DATA TYPES
1	Traveler_Id	primary key	Number
2	Enquiry_No		Number
3	Reg_No	Foreign key_bus details	Number
4	Traveler Name		Text
5	Age		Number
6	Address		Text
7	Phone		Number
8	E_Mail		Text

ENQUIRY DETAIL			
S.NO	FIELD NAME	KEY	DATA TYPES
1	Enquiry_No		Number
2	Enquirer Name		Text
3	Proposed Date		Date/Time
4	Enquiry Place		Text
5	Proposed Budget		Number
6	Address		Text
7	Country		Text
8	Phone_No		Number

TRAVEL TICKET RESERVATION			
S.NO	FIELD NAME	KEY	DATA TYPES
1	Reg No	Foreign key - Traveller	Number
2	Reservation No	Primary Key	Number
3	Ticket No		Number
4	From		Text
5	To		Text
6	Date of Journey		Date/Time
7	Dep time		Date/Time
8	Passenger Name		Text
9	Sex		Text
10	Number of Seats		Number
11	Alloted Seat No		Number
12	Phone number		Number
13	Advance Amount		Number
14	Service Tax		Number
15	Amount		Number

TRAVEL TICKET CANCELLATION			
S.NO	FIELD NAME	KEY	DATA TYPES
1	Reg No		Number
2	Reservation NO	Foreign key - Traveller	Number
3	Passenger Name		Text
4	Balance Amount		Number
5	Cancellation Charge		Number

4.3 TABLE DESIGN

BUS DETAILS			
S.NO	FIELD NAME	KEY	DATA TYPES
1	Reg_No	Primary Key	Number
2	Route		Text
3	No_Of_Trip		Number
4	Permit_No		Number
5	Permit Date		Date/Time
6	Fc Date		Date/Time
7	Insurance Date		Date/Time
8	Type		Text
9	No_Of_Seats		Number
10	Tax		Number

LORRY DETAILS			
S.NO	FIELD NAME	KEY	DATA TYPES
1	Reg_No	Primary Key	Number
2	Permit_No		Number
3	Capacity		Number
4	Permit Date		Date/Time
5	Fc Date		Date/Time
6	Insurance Date		Date/Time
7	Tax		Number
8	Lorry Type		Text

TOUR TICKET RESERVATION			
S.NO	FIELD NAME	KEY	DATA TYPES
1	Reg No	Foreign key - Traveller	Number
2	Reservation No	Primary Key	Number
3	Date of Journey		Date/Time
4	Dep time		Date/Time
5	Passanger Name		Text
6	No Of Persons		Number
7	Net Pay		Number
8	Advance		Number
9	Phone No		Number

TOUR TICKET CANCELLATION			
S.NO	FIELD NAME	KEY	DATA TYPES
1	Reg No	Primary Key	Text
2	Reservation No	Foreign Key	Number
3	Date of Journey		Date/Time
4	Passanger Name		Text
5	Phone No		Number
6	Advance Amount		Number
7	Cancellation Charge		Number
8	Balance Amount		Number

LORRY BOOKING			
S.NO	FIELD NAME	KEY	DATA TYPES
1	Reg No	Foreign key -lorry	Text
2	Booking No	Primary Key	Number
3	From		Text
4	To		Text
5	Particulars of Load		Text
6	Total Weight		Number
7	Sender Name		Text
8	Sender Address		Text
9	Buyer Name		Text
10	Phone No		Number
11	Total Amount		Number
12	Advance Amount		Number

MAINTENANCE TYRE CHANGE			
S.NO	FIELD NAME	KEY	DATA TYPES
1	Reg No	Foreign key -lorry	Number
2	Date of Fitting		Date/Time
3	Tyre Manufacturer		Text
4	Tyre Selection		Text
5	Tyre Position		Text
6	Side Of Fitting		Text
7	Fitting KM		Number
8	Date of Last Fitting		Date/Time
9	Last Fitting KM		Number

INWORD OUTWORD SALES			
S.NO	FIELD NAME	KEY	DATA TYPES
1	Reg No	Foreign key -lorry	Text/Number
2	Route Name		Text
3	Permit Date		Date/Time
4	Permit No		Number
5	Fc Date		Date/Time
6	Running KM		Number
7	Buy Date		Date/Time
8	Sales Date		Date/Time
9	Insurance Date		Date/Time
10	Cost of Chass		Number
11	Cost of BodyBuilt		Number
12	Total Cost		Number
13	Cost of Vehicle at Buy		Number
14	Cost of Vehicle Sales		Number



CHAPTER 5

SYSTEM TESTING AND IMPLEMENTATION

The entire system is tested by moving through Bus Details, Collections, Reservation, Cancellation, Tour, Expenses .Purchase and Sales Modules. The verification and validation processes are then carried out. The errors that occur at testing phase are eliminated.

The following tests are carried out.

5.1 TESTING METHODS

5.1.1 Unit Testing

It focuses verification efforts on the smallest unit of software design, the module namely Bus Details, Collections, Reservation, Cancellation, Tour, Expenses .Purchase and Sales. Input, output and sequence flow are tested in each module. This testing was carried out during programming stage itself.

5.1.2 Validation Testing

Validation testing was done after the completion of each module. Once the module is completed the possible values are given for each field in that particular module. If checked for illegal values, it generates the user defined errors i.e. if a user enters alphabets in the phone number field, it triggers the user defined messages

5.1.3 Output Testing

After performing the validation testing the next step is output testing of the proposed system. The outputs generated or displayed by the system under consideration are tested based on the requirements gathered and by asking the users about the formats required by them.

5.2 IMPLEMENTATION

The implementation phase of software development is concerned with translating design specification into source code. Source code clarity is enhanced by structured coding techniques, good coding style, by good internal comments and by the features provided in programming languages. Like inheritance, interface.

Coding Style is standardized through out the document, by means of declaring the variable names. Variable names start with data type followed with need of the variable. While coding comments were given i.e. for Connections, the Comments Statements will contain database name, table name

The structured coding is to liberalize control flow through a computed program so that the execution sequence follows the sequence in which the code is written. The structure coding techniques are as follows:

- **Inheritance and Interface**

An interface has to be defined for the implementation methods that has been used for manipulating the records i.e. First, Next, Last ,Previous ,Add ,Delete ,Save and Sorting .This interface is inherited in the form that needs this methods and coded according to the needs of form

- **Data Encapsulation**

Encapsulation wraps the data and methods into a single unit by means of class, So Security is given for data members, and data members cannot be accessed by outside methods. It's implemented for the user's privileges.

- **Recursion**

Recursion were used for reducing the code line in number, In this project its implemented for small functionalities i.e. for searching a given number

5.3 MAINTENANCE

Software maintenance involves keeping software interfaces simple and standard, paying particular attention to troublesome modules, replacing faulty components and generally planning to replace components that are old, obsolete, faulty, or at risk for imminent failure. There are several factors that require to be maintained. They are

- Hardware platforms change or become obsolete.
- Operating system change.
- Language standard's change.
- Graphical user interface change.

Maintenance can be classified into

It deals with adapting software change in the environment. It does not lead to changes in the system functionality.

- Perceptive maintenance
- Preventive maintenance
- Corrective maintenance

Perceptive Maintenance

The new changes required by the user for each module will be done. The system performance will be monitored based on each module. The corresponding user activities are being monitored to improve system performance and enhance its user interface. The objective of perceptive maintenance should be to prevent failures and optimize the software.

Preventive Maintenance

Preventive maintenance concerns activities aimed at increasing the system's maintainability such as updating the documentation, adding comments and improving modular structure of the system.

Corrective Maintenance

This deals with the repair of faults found. Some of the major causes of maintenance problems are:

- Unstructured code
- Maintenance programmers having insufficient knowledge of the system and on application domain.

CHAPTER 6

CONCLUSION AND FUTURE ENHANCEMENTS

CONCLUSION

Transport management system was developed using an efficient architecture (VB.NET) and a user-friendly environment is provided. The proposed modules were completed and each module was tested with sample data to ensure that information properly flows in and out of the modules.

The Transport management system is a successful software that satisfies all the indented requirement of Transport Services. This software has successfully achieved the functionality that was expected.

FUTURE ENHANCEMENTS

The following are the future enhancements that can be implemented later;

- The system will be integrated with web applications to be hosted over the internet for online reservation of transport services.
- Many more modules like payroll, storage management will be added to the existing system.
- Maintenance of various accessories electronically using bar-codes will be integrated with the existing system.

APPENDICES

6.1 SCREEN SHOTS

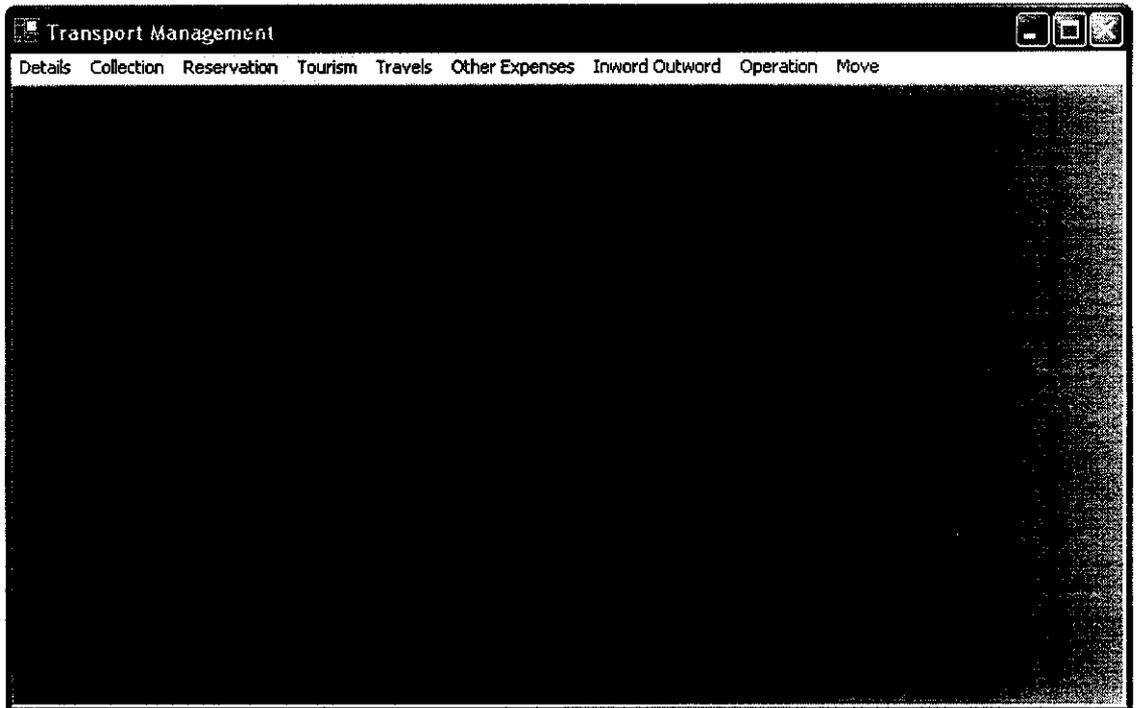


Figure 6.1.1 Screen Shot – Main Form

Transport Management - [Bus Details]

Details Collection Reservation Tourism Travels Other Expenses Inword Outword Operation Move

BUS DETAILS

DETAILS

TYPE	Travels	PERMIT NO	7096
REG NO	TN 28 A 7403	INSURANCE DATE	15-05-2006
FC DATE	14-04-2006	NO OF SEATS	30
PERMIT DATE	14-07-2005	TAX IN RS:	2000

ROUTE	Banglore
NO OF TRIPS	4

Figure 6.1.2 Screen Shot – Bus Details

Transport Management - [Daily_Trip]

Details Collection Reservation Tourism Travels Other Expenses Inward Outward Operation Move

COLLECTION

DATE: 15-54-2005 TIME: 09:35AM

REG NO	TN 28 E 3456	FROM	Rasipuram
BOOK NO	456	TO	Salem
TICKET NO	4523	TICKET AMOUNT IN RS:	2000
DRIVER	Raja	LUGGAGE AMOUNT IN RS:	200
CONDUCTOR	Ravi	COLLECTION AMOUNT IN RS:	2200

Figure 6.1.3 Screen Shot – Collection Details

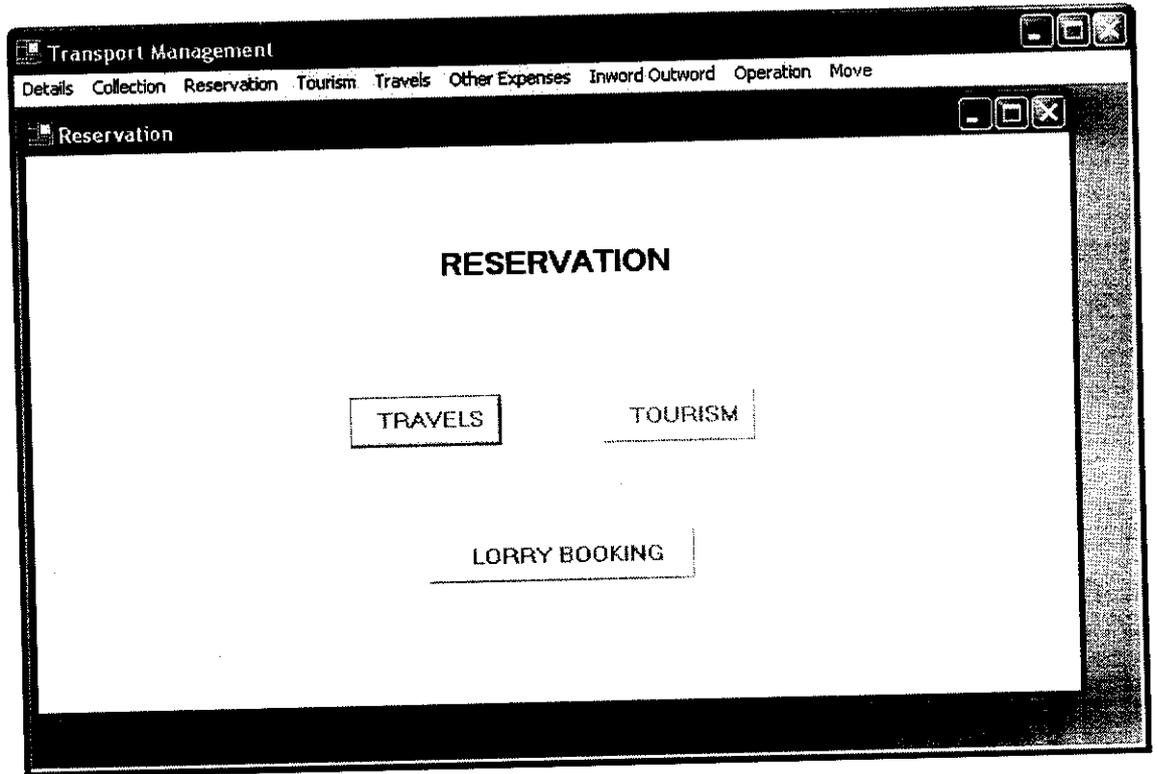


Figure 6.1.4 Screen Shot – Reservation From

Transport Management - [Tour_organiser]

Details Collection Reservation Tourism Travels Other Expenses Inword Outword Operation Move

Traveler Detail

TRAVELER DETAIL

Enquiry

Tour Place List

Payment

Hotels

Itinerary Detail

Reminder

Receipts

MAP

TRAVELER ID	023	AGE	24
ENQUIRY NO	12	ADDRESS	21,street covi
REG NO	36	PHONE NO	98427-77943
TRAVELER NAME	Raja	E-MAIL	ja123@yahoo.com

Figure 6.1.5 Screen Shot – Traveler Detail

Tyre_Change

TYRE CHANGE

	TYPE	TRAVELS	
VEHICLE ID	23	SIDE OF FITTING	Inner
REG NO	TN 28 E 12S7	FITTING KM	45345
DATE OF FITTING	12-04-2004	DATE OF LAST FITTING	12-3-2005
TYRE MANUFACTURER	MRF	LAST FITTING KM	36000
TYRE SELECTION	FRONT	TYRE RUN KM	60234
TYRE POSITION	Right		

Figure 6.1.6 Screen Shot – Maintenance

Sales

SALES

TYPE TRAVELS

BUY DATE 03-07-2004 SALES DATE 15-07-2005

REG NO	TN 28 E 1257	INSURANCE DATE	23-04-2005
ROUTE NAME	Salem	COST OF CHASS IN RS:	755000
PERMIT DATE	12-03-2005	COST OF BODYBUILT IN RS:	457000
PERMIT NO	3456	TOTAL COST	1212000
FC DATE	11-04-2005	COST OF VEHICLE AT BUY IN RS:	1212000
RUNNING KM	23000	COST OF VEHICLE AT SALES IN RS:	1023000

Figure 6.1.7 Screen Shot – In word out word

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