

BachKhoa - Aptech Computer Education



This is to certify that

Nguyen Van Chuc

Hoang Van Kien

Dang Huu Son

Has successfully Designed & Developed

"ONLINE BUS TICKET RESERVATION SYSTEM"

Submitted by :

Nguyen Van Chuc

Date of Issue :

24-Dec-2009

Authorized Signature :

Nguyen Van Chuc



Problem Definition :

1. Problem Abstraction

a. Purpose:

SRC Travel Agencies is a domestic privatized transportation company that runs the vehicles all over the country. They have several branches at different locations of the country, so that they can provide the transportation facilities between the places. They want an online application to be developed, where the details of the bookings done and the customer will be updated from time to time and one can track the details of the available seats immediately.

b. Range of document:

This is a ticket management program for central ticketing company, is a system connected to a database including user staff, management, and customer bookings. Including car and bus routes are important components of the program.

2. The Current System

System management bus ticket missing so focused company has realized that need a management system best car have a common database management center bus ticket in many places.

3. The Proposed System

Scope:

- The details of the buses, Price list, and Employee details are to be maintained and controlled solely by the (Manager) Admin alone.
- The Employer can change alone the password assigned to him.
- Also first the employer needed to login first in order to perform the booking actions.
- Calculations of the charges and the reimbursements are to be implemented by the application alone as designated by the Admin.
- The details of the buses and seats available are to be maintained and can be updated regularly (ofcourse only by the admin)
- Enquiry form, Booking form and the pricing list are to be maintained in separate pages.
- There should be new, update, cancel and search options available.

Overall description:

Non-Financial:

An online application needed to be developed which is to be solely used and maintained by the booking department alone (regarding the bookings like booking, Enquiry and Updating and canceling). It is implemented so as to automate the process. Also the total authority is taken care of by the admin (Employee, Buses and charges) Also for booking or to perform other actions one has to login with the username and the password assigned.

There will be a new, Update, Cancel, search buttons available on each page with which the employee details

The customer needed to visit to the booking to enquire or book the tickets and he can collect the tickets in the bus alone.

It also maintains a database that consists of the list of buses along with the five digit code that will be assigned to each bus for easy reference.

Also the application should develop a unique six digit code whenever a new employee detail is entered.

Employee s personal, contact, age, qualifications etc are needed to be collected.

There will be an Enquiry form, Booking Form, and the also a page where the search options will be available. Also the Price list is to be maintained separately, where one can access the details of the price by entering the details of the Place of starting and destination, age, number of seats, etc.

The charges are as per the age, bus type and the distance and are to be maintained by the application alone.

Financial:

The charges vary depending on the type of the bus opted, distance of travel and as well the age of the customer, which is to be calculated by the application alone. The price list can be updated by the Admin alone. Also the Reimbursement of the amount will also be as defined by the admin and is calculated by the application alone by considering the above parameters.



Requirements and Business Flow :

1. Administer a system

a. Login system:

Purpose:

Allow use declared identification to used application.

Object used:

Administrator, Employee, Customer, Visiter

Functional request:

- Allow user input username and password and validate information.
- The program will display error if username or password is invalid.

Execute condition:

b. Ticket book management:

Purpose:

Allows managers manage employees, bus routes and bus.

Object used:

Administrator

Functional request:

- Application for the search has not set ticket, the fare was set, the online car, truck and control staff.
- Application for additional car online, the location of the vehicle, creating tickets, canceled tickets, booking.
- The application allows managers tickets, sell tickets, to cancel tickets and staff created tickets but not controlled cars and car routes.

Execute condition:

Administrator and employee have to login system.

c. Tax Management:

Purpose:

Allows managers (admin) and employees find information about Tax.

Object used:

Administrator, employee

Functional request:

- Allows administrators to delete more edit functions as well as tax.
- Insurance market for tax information list.

Execute condition:

Administrator and employee have to login system.

d. Promote management:

Purpose:

Allow administrator manage Service type and Services information in system.

Object used:

Administrator

Functional request:

- Allows administrators to delete more edit functions as well as Promote
- The application allows inserting new Promote

Execute condition:

Administrator an employee has to login system. Employee only view, can not edit.

e. Account management:

Purpose:

Allow manager manage employee information and admin in system.

Object used:

System manager: admin and employee

Functional request:

- The application must allow admin to searched, edited, deleted of employee in system.
- The application allows only Administrator inserting new account.
- The application allows admin or employee can change the password or even he can update his details.
- Only allow management to control employee and also employee only changes the password.

Execute condition:

Administrator or employee has to login system.

f. Bus management:

Purpose:

Vehicles and vehicle routes to allow only administrators manage; the list will cover details of online marketing vehicles and vehicle. The administrator has the right to cancel or continue to allow the car trip activities.

Object used:

System manager: admin.

Functional request:

- This application allows administrators to use.
- This application allows administrators to add, edit, delete and update bus, route of bus.

Execute condition:

Administrator has to login system.

g. Employee management:

Purpose:

The administrator has the right to delete, update, create or continue to allow the employee.

Object used:

System manager: admin.

Functional request:

- This application allows administrators to use.
- This application allows administrators to add, edit, delete and update employee.

Execute condition:

Administrator has to login system.

2. Website

a. View Services information routes of bus:

Purpose:

This system is mainly used for management and employees, users visiting the bus ticket. Visitors are not booking. Visitors also need an account on the website.

Object used:

Employee and Users or visitor

Functional request:

- Allowing customers to visit, view tickets and information related to the center bus ticket.
- Detailed coverage of the address bus ticket center.
- Allows search other bus, the bus right on the site.

Execute condition:

Users or visitor goes to website view bus and route bus.



Customer Requirement Specification (CRS)

Client : Web site User

Business/Project objective :

- Create a Website using ASP.NET and MS SQL Server 2005. The website authenticates the existing user by his user name and password. The website has a registration page where a new user can enter his personal details in the given field. The user details get stored in the database and the database containing details of existing users gets updated.
- For the purpose of storing information of Administrator, Employees, Customers, details of bus ticket...

Input provide by client :

- Inputs for the Web-based application
- Outputs from the Web-based application
- Process involved in the Web-based application
- Expected delivery dates
- List of deliverables
- Data Constraints / Triggers / Validation Tables

Hardware Requirements :

- A minimum computer system that will help you access all the tools in the courses is a Pentium 166 or better
- 64 Megabytes of RAM or better
- Windows 98 (or higher if possible)

Software Requirements :

- .NET Framework 2.0
- IIS Version 6.0
- Microsoft SQL Server 2005

- Visual studio 2005
- Internet Explorer 7.0
- Flash 8



Scope of the Work (in brief)

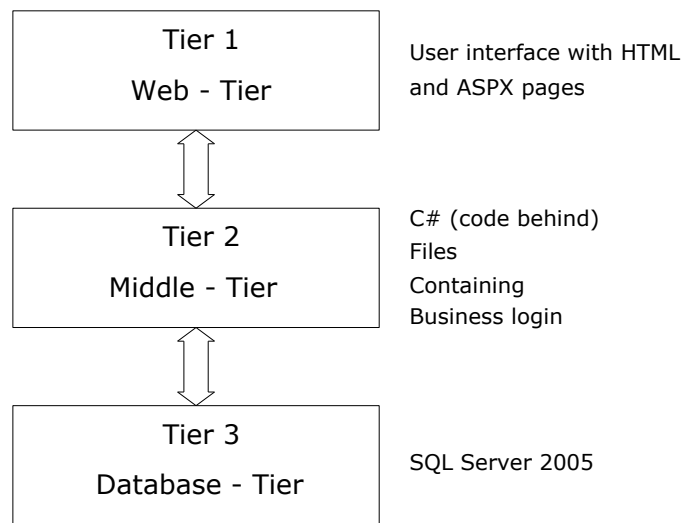
Depending on the decision taken by the company of firm, following are the requirements based on which the Website needs to be developed:

1. Registration of new users and authentication of existing user
2. A website containing text boxes, buttons, dropdown list boxes, labels and hyperlinks, which will provide a user-friendly interface to the user to work with the Website.
3. Allow a customer to register himself as a new user, perform login, search for bus ticket and details of bus ticket such as starting, destination, date, time, type of bus, price of ticket... for booking.
4. Allow an Employee do the same task as Customer. Besides, they can print ticket for passengers.
5. Allow Admin manager (insert, update, delete) information of Employee, Customers, Bus, Price List...



Architecture and Design of the Project

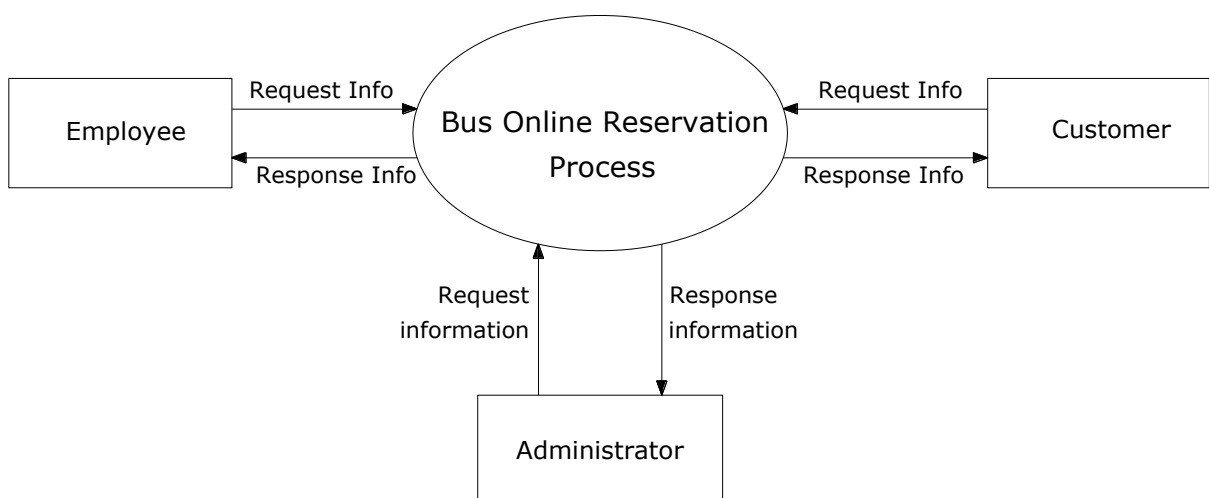
The application will be made of a Web-based distributed three-tier architecture to support multiple user transaction at the same time.



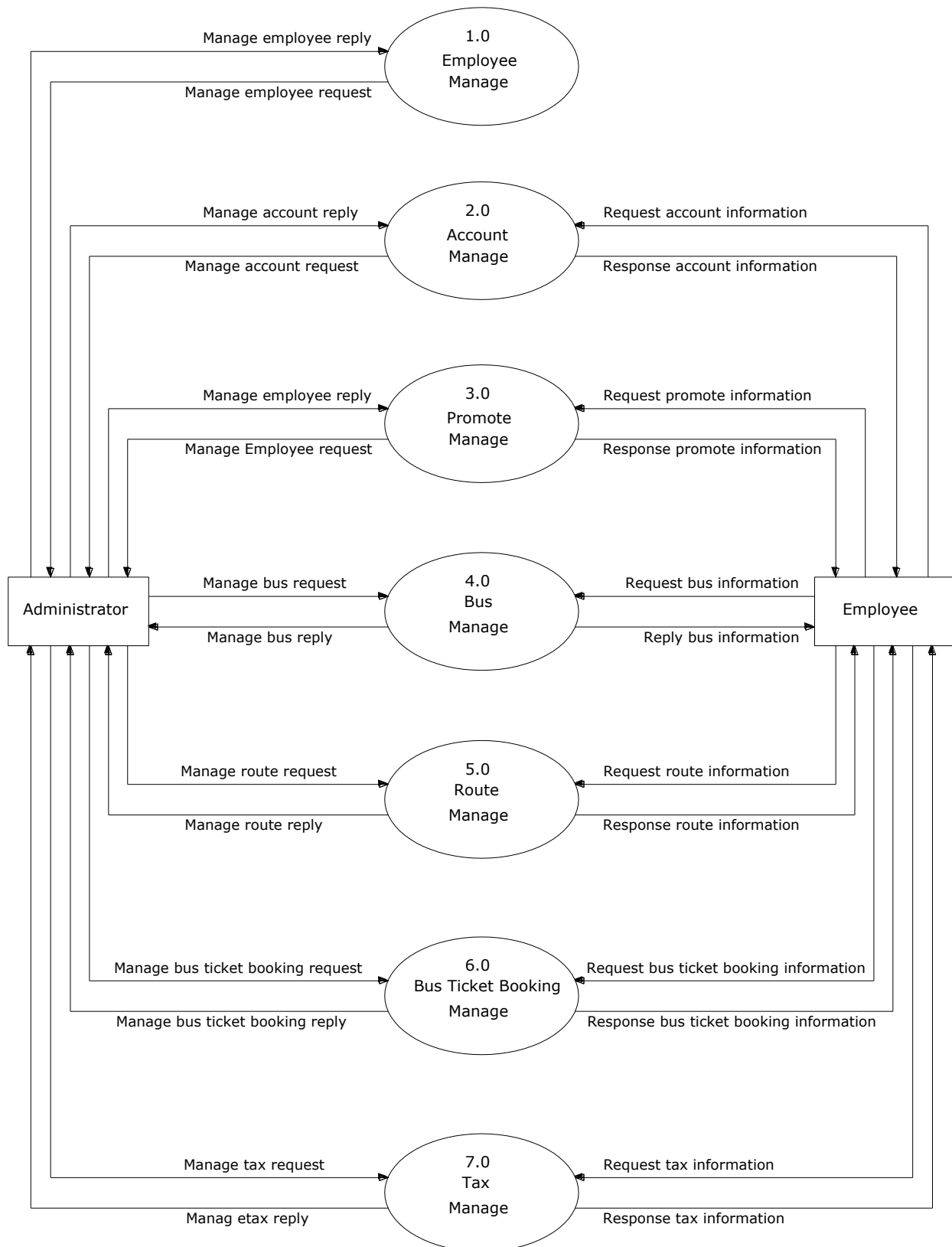
Web based Distributed 3-Tier Architecture of the Project

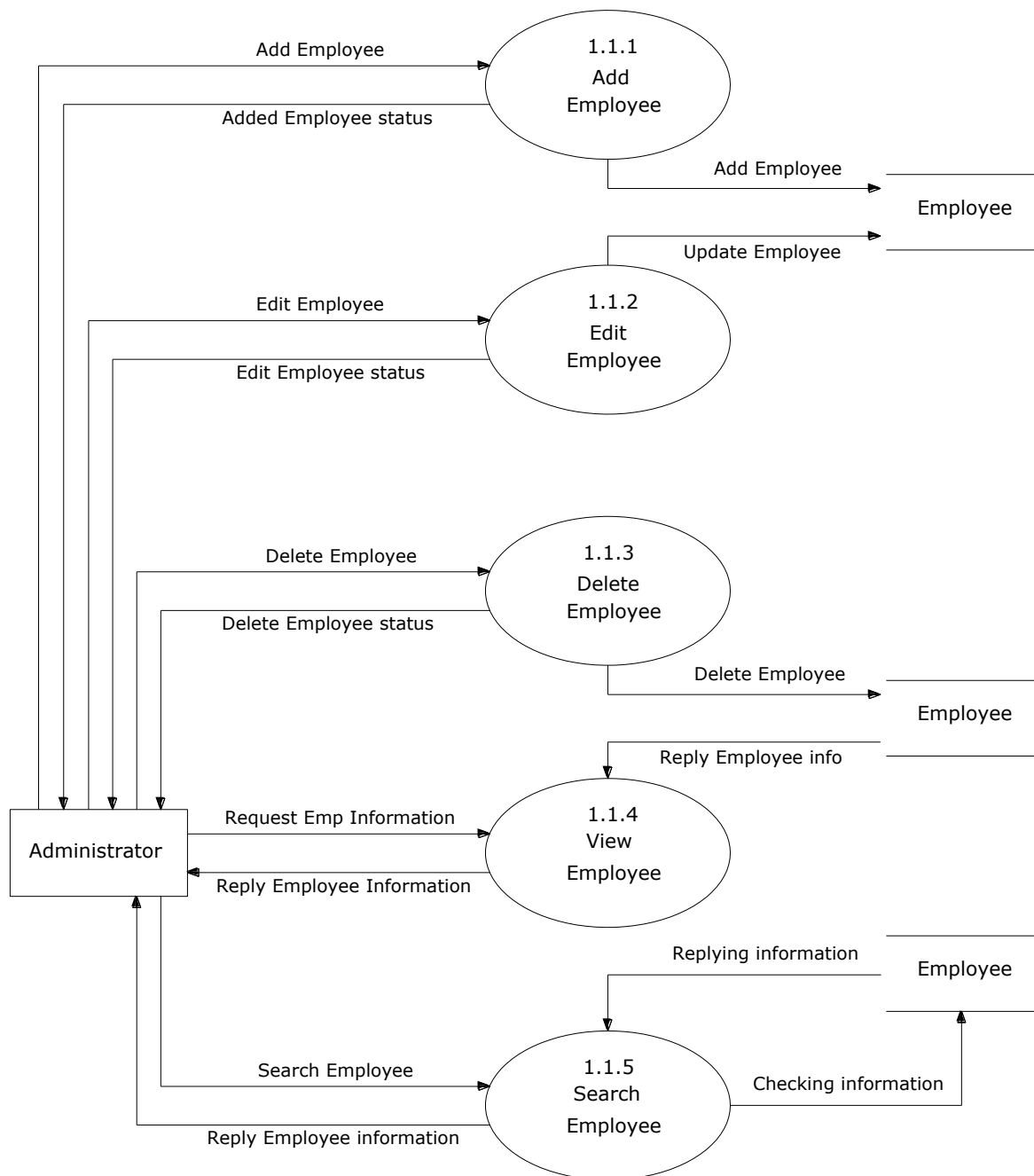


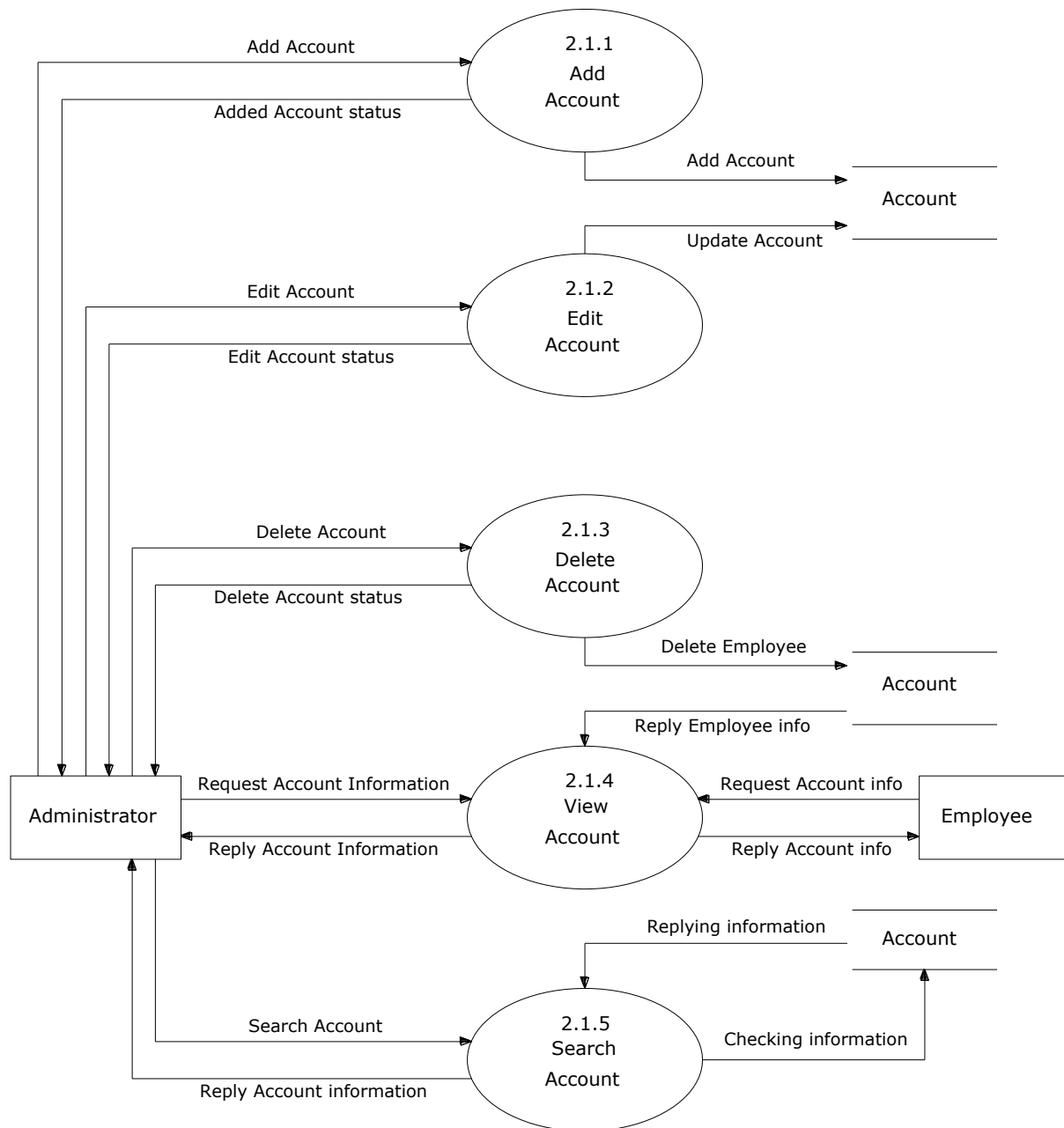
Dataflow Diagram

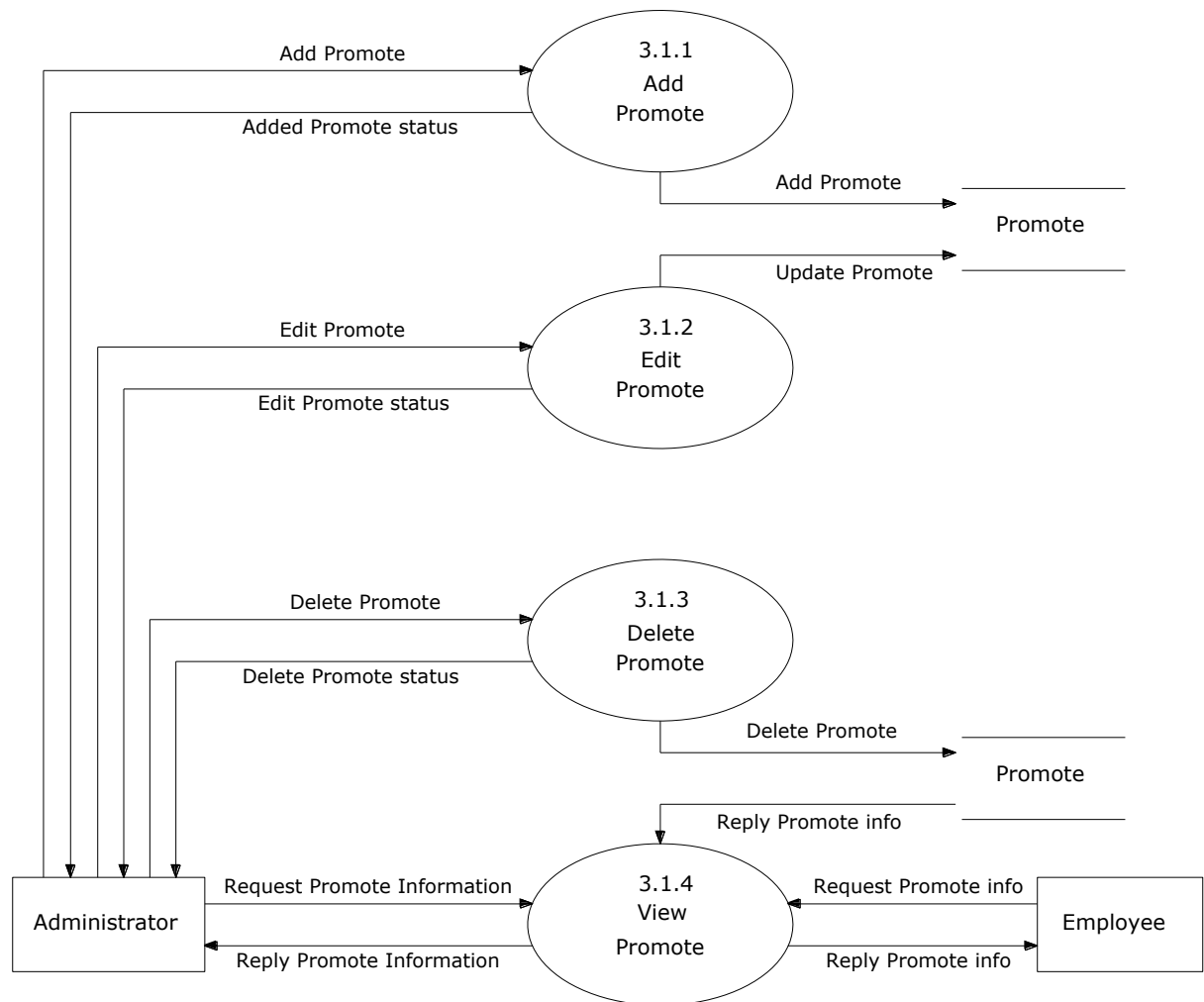


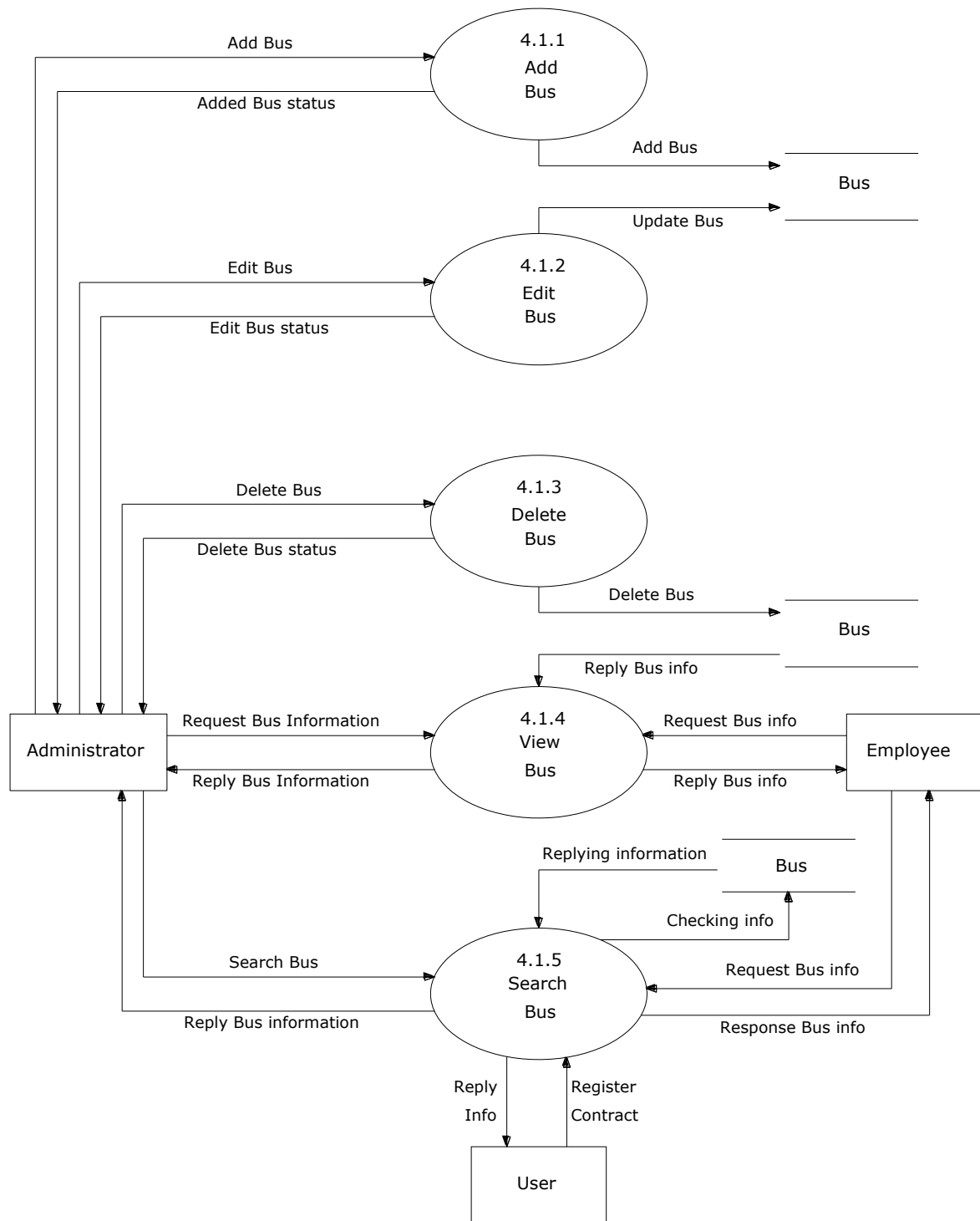
DFD LEVEL 0 - Context Diagram

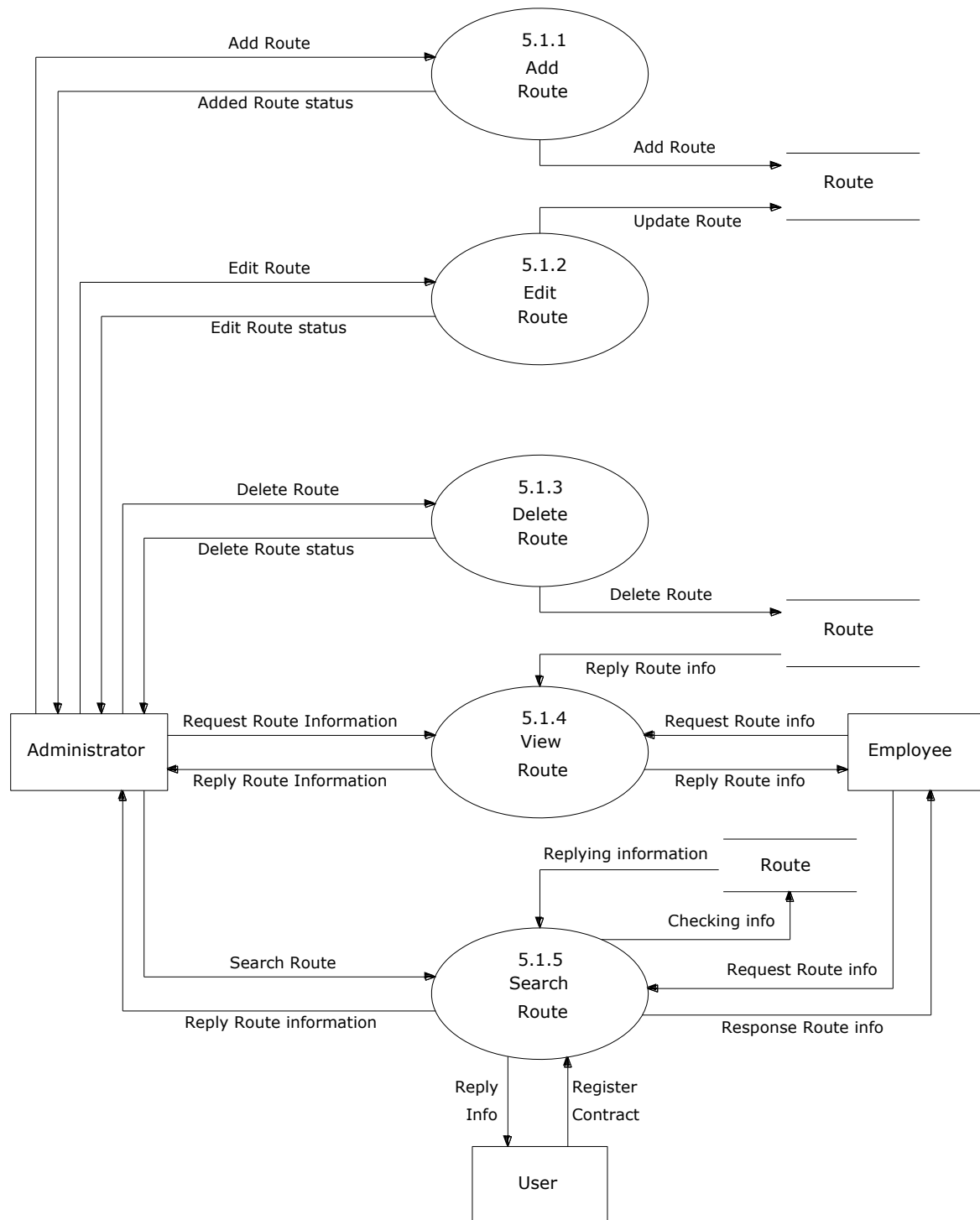
**DFD LEVEL 1 - Application Process**

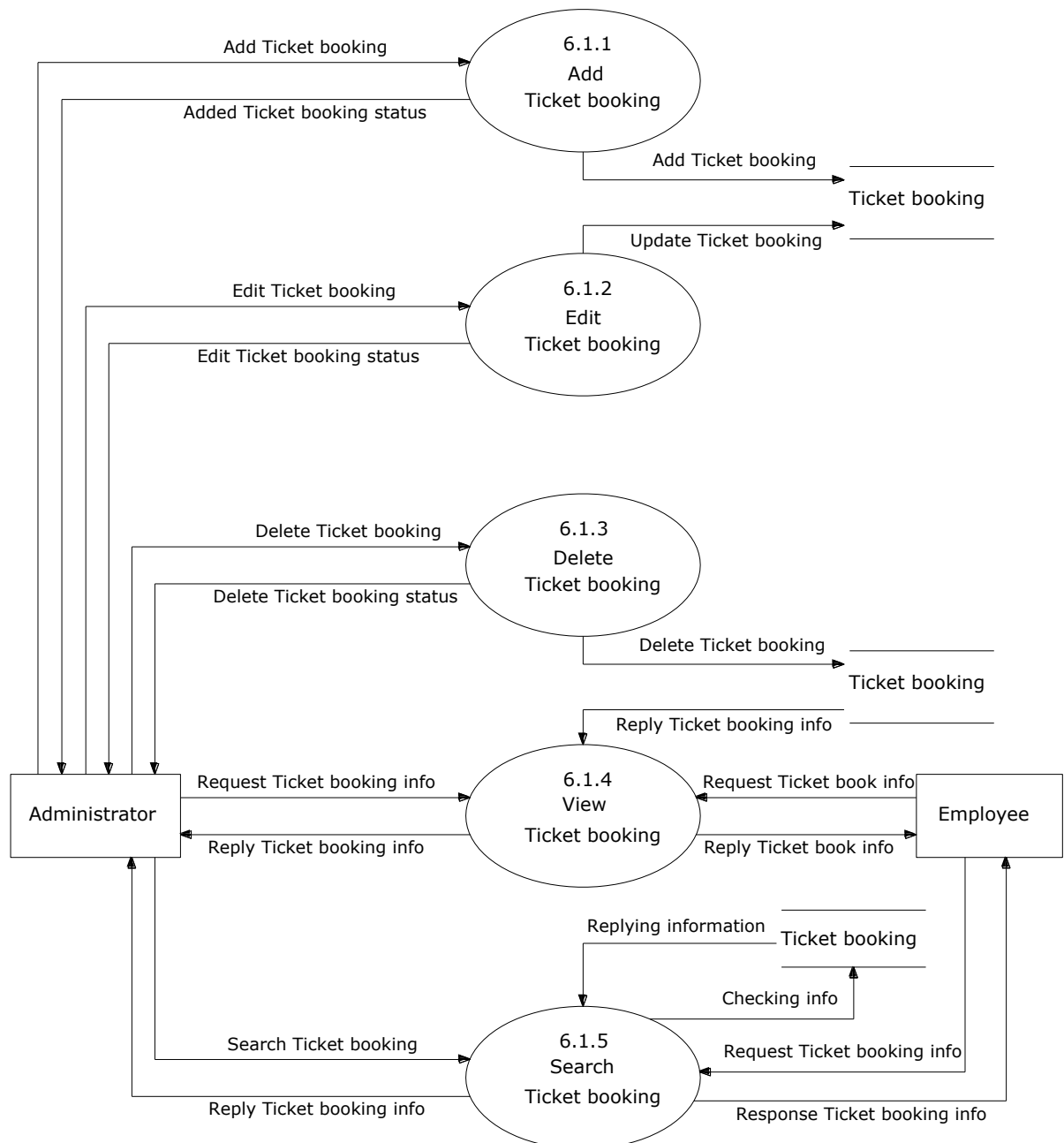
**DFD LEVEL 1-1 : Employee Manage**

**DFD LEVEL 2-1 : Account Manage**

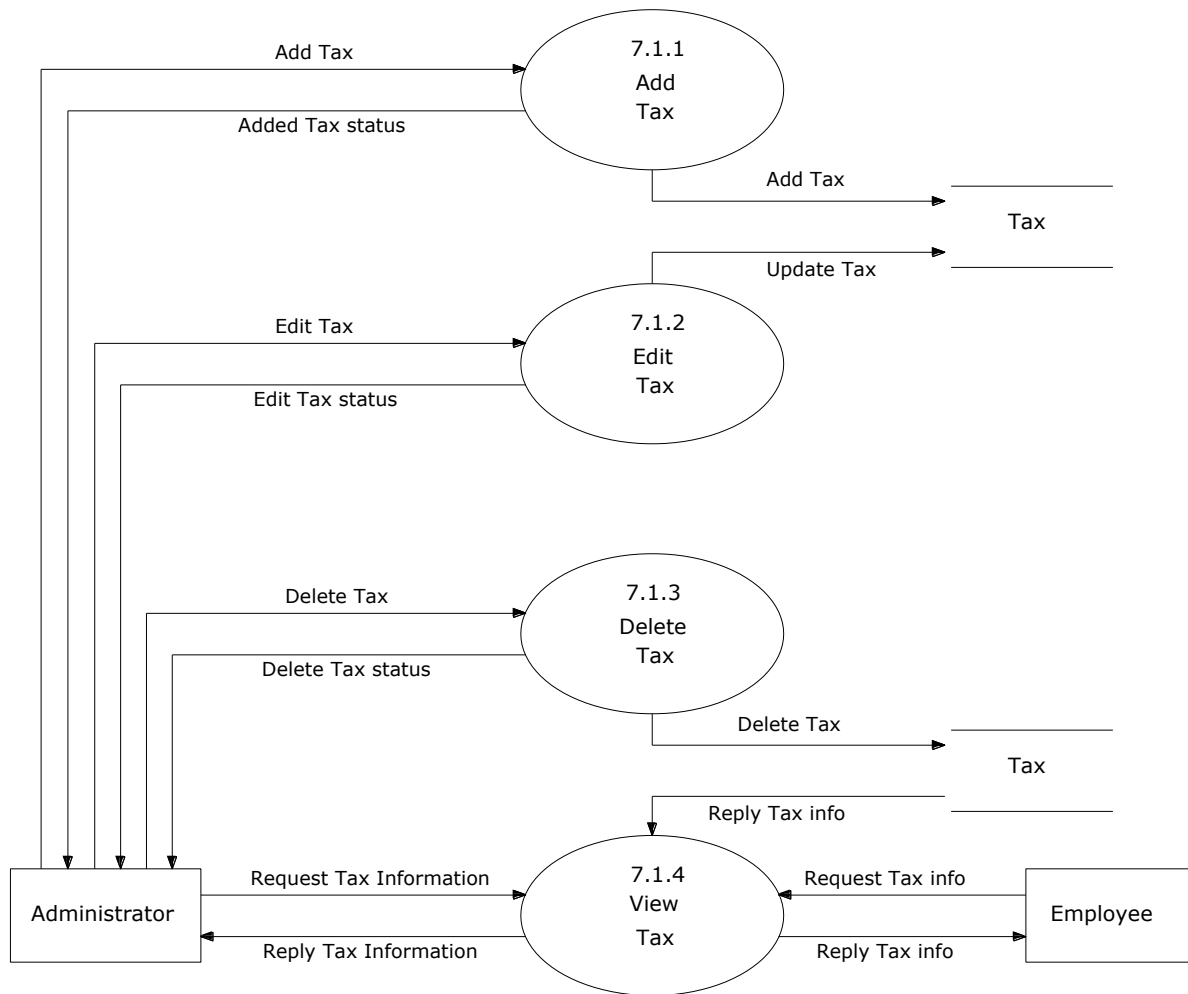
**DFD LEVEL 3-1 : Promote Manage**

**DFD LEVEL 4-1 : Bus Manage**

**DFD LEVEL 5-1 : Route Manage**

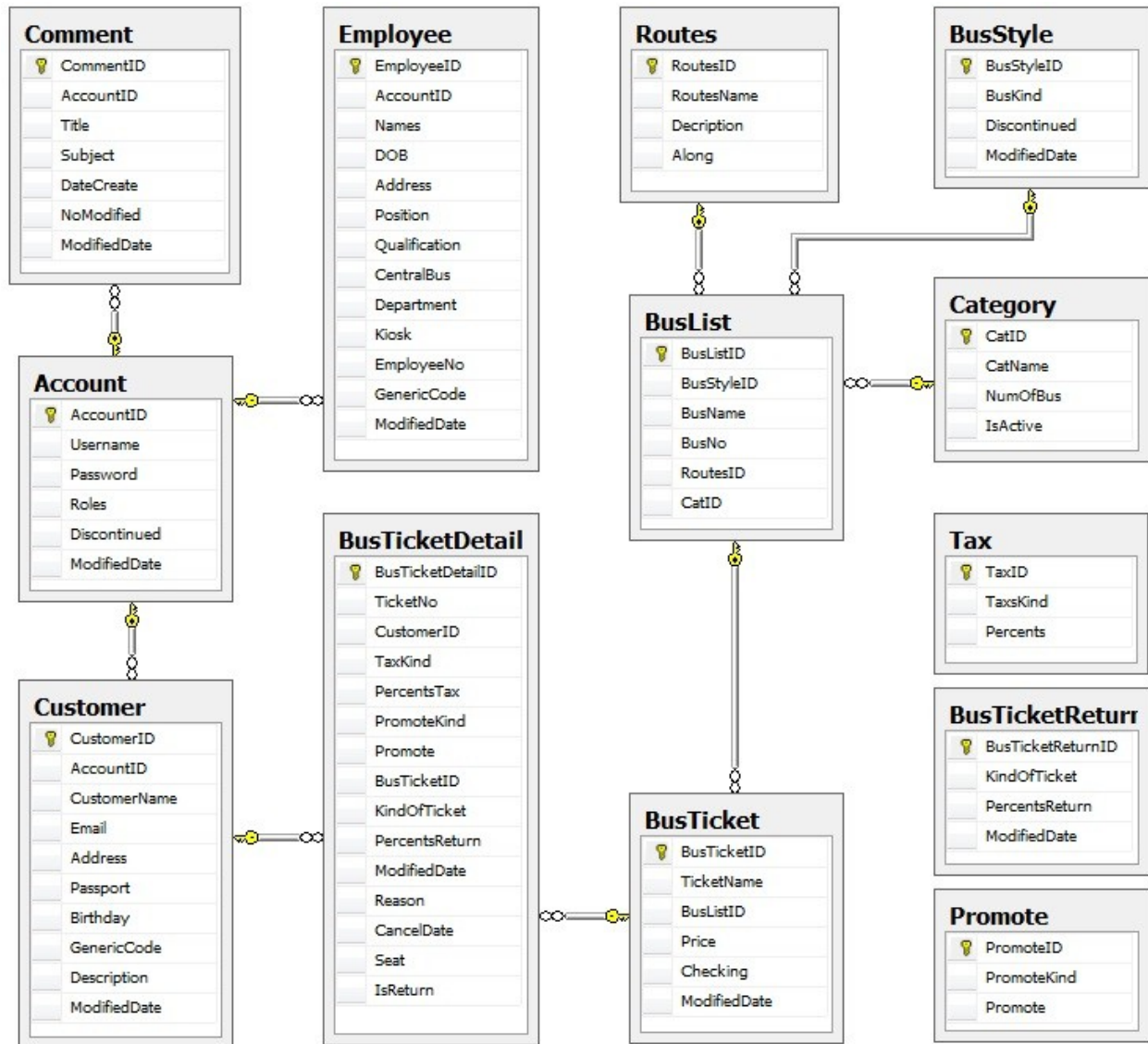


DFD LEVEL 6-1 : Bus Ticket Booking Manage

**DFD LEVEL 7-1 : Tax Manage**



Entity Relationship (ER) Diagram



E-R Diagram



Database Design/Structure

Table Design

Table : Account			
Field Name	Data Type	Null	Description
<u>AccountID</u>	int	No	PK
Username	nvarchar(128)	Yes	
Password	varchar(128)	Yes	
Roles	int	Yes	1, 2, 3, 4
Discontinued	bit	Yes	
ModifiedDate	DateTime	Yes	

Table : BusList			
Field Name	Data Type	Null	Description
<u>BusListID</u>	int	No	PK
BusStyleID	int	Yes	
BusName	nvarchar(128)	Yes	
BusNo	int	Yes	
RoutesID	int	Yes	
CatID	int	Yes	

Table : Category			
Field Name	Data Type	Null	Description
<u>CatID</u>	int	No	PK
CatName	nvarchar(128)	Yes	
NumOfBus	int	Yes	

Table : BusStyle			
Field Name	Data Type	Null	Description
<u>BusStyleID</u>	int	No	PK
BusKind	nvarchar(128)	Yes	
Discontinued	bit	Yes	
ModifiedDate	DateTime	Yes	

Table : BusTicket			
Field Name	Data Type	Null	Description
<u>BusTicketID</u>	int	No	PK
TicketName	nvarchar(128)	Yes	
BusListID	int	Yes	
Price	double	Yes	
ModifiedDate	DateTime	Yes	

Table : BusTicketDetail			
Field Name	Data Type	Null	Description
<u>BusTicketDetailID</u>	int	No	PK
TicketNo	nvarchar(128)	Yes	
CustomerID	int	Yes	
TaxKind	nvarchar(128)	Yes	
PercentsTax	double	Yes	
PromoteKind	nvarchar(128)	Yes	
Promote	double	Yes	
BusTicketID	int	Yes	
BusTicketReturnID	int	Yes	
PercentsReturn	double	Yes	
ModifiedDate	DateTime	Yes	
Reason	nvarchar(128)	Yes	
CancelDate	DateTime	Yes	
Seat	int	Yes	
IsReturn	bit	Yes	

Table : BusTicketReturn			
Field Name	Data Type	Null	Description
<u>BusTicketReturnID</u>	int	No	PK
KindOfTicket	nvarchar(128)	Yes	
ModifiedDate	DateTime	Yes	

Table : Comment			
Field Name	Data Type	Null	Description
<u>CommentID</u>	int	No	PK
AccountID	int	Yes	
Title	nvarchar(256)	Yes	
Subject	nvarchar(768)	Yes	
DateCreate	DateTime	Yes	
NoModified	int	Yes	
ModifiedDate	DateTime	Yes	

Table : Customer			
Field Name	Data Type	Null	Description
<u>CustomerID</u>	int	No	PK
AccountID	int	Yes	
CustomerName	nvarchar(128)	Yes	
Email	nvarchar(128)	Yes	
Address	nvarchar(128)	Yes	
Passport	nvarchar(128)	Yes	
BirthDay	DateTime	Yes	
GenericCode	nvarchar(128)	Yes	
Description	nvarchar(128)	Yes	
ModifiedDate	DateTime	Yes	

Table : Employee			
Field Name	Data Type	Null	Description
<u>EmployeeID</u>	int	No	PK
AccountID	int	Yes	
Names	nvarchar(128)	Yes	
DOB	DateTime	Yes	
Address	nvarchar(200)	Yes	
Position	nvarchar(128)	Yes	
Qualification	nvarchar(128)	Yes	
CentralBus	nvarchar(128)	Yes	
Department	nvarchar(128)	Yes	
Kiosk	nvarchar(128)	Yes	
EmployeeNo	nvarchar(128)	Yes	
GenericCode	nvarchar(128)	Yes	
ModifiedDate	DateTime	Yes	

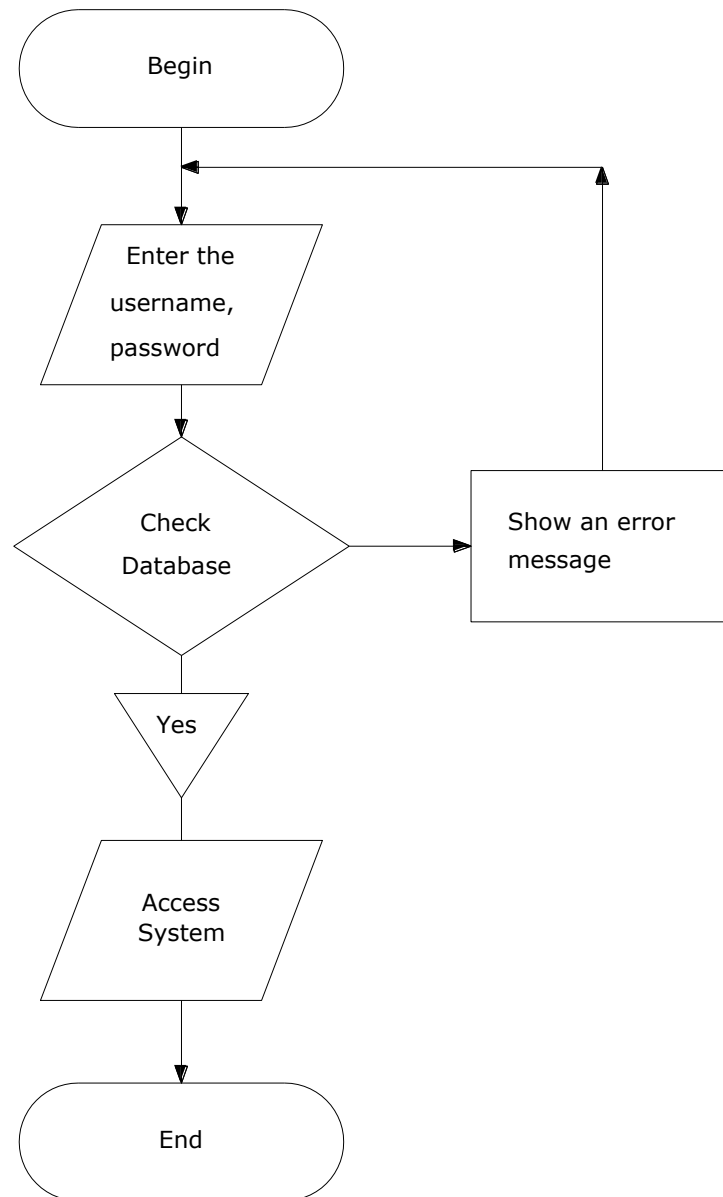
Table : Routes			
Field Name	Data Type	Null	Description
<u>RoutesID</u>	int	No	PK
RoutesName	nvarchar(128)	Yes	
Description	nvarchar(256)	Yes	

Table : Promote			
Field Name	Data Type	Null	Description
<u>PromoteID</u>	int	No	PK
PromoteKind	nvarchar(128)	Yes	
Promote	double	Yes	

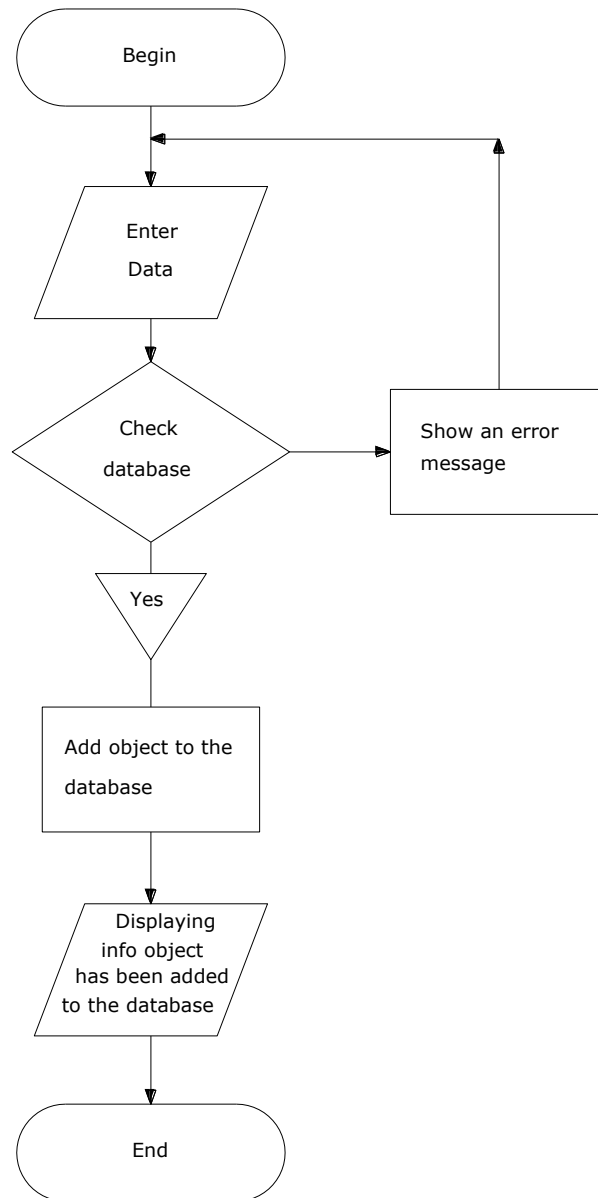
Table : Tax			
Field Name	Data Type	Null	Description
<u>TaxID</u>	int	No	PK
TaxsKind	nvarchar(128)	Yes	
Percents	double	Yes	



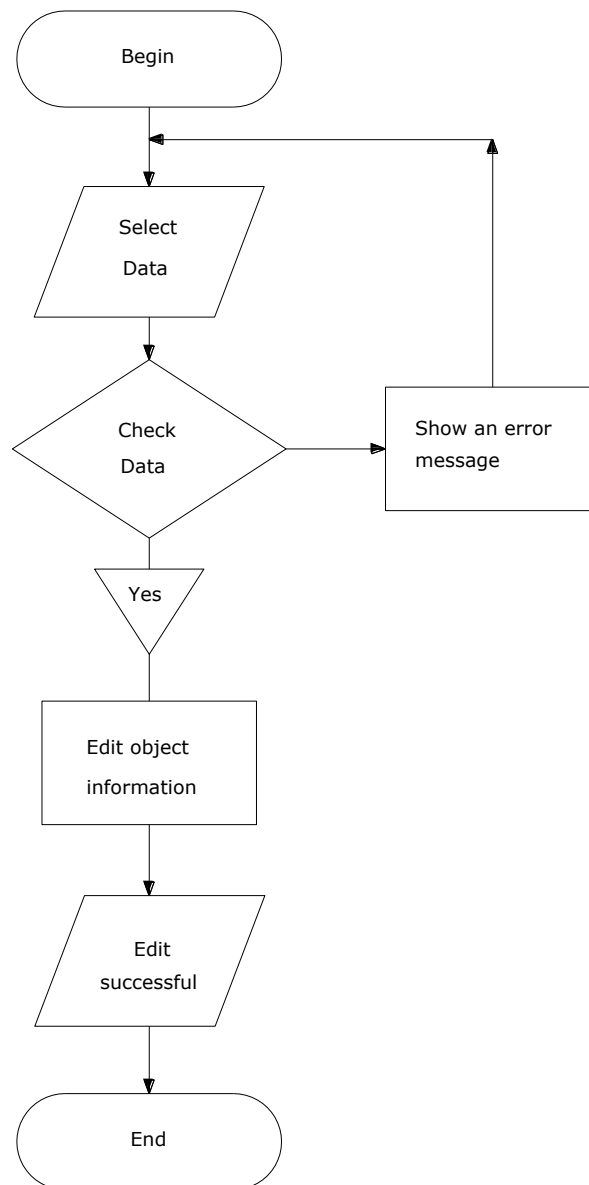
Flow Chart



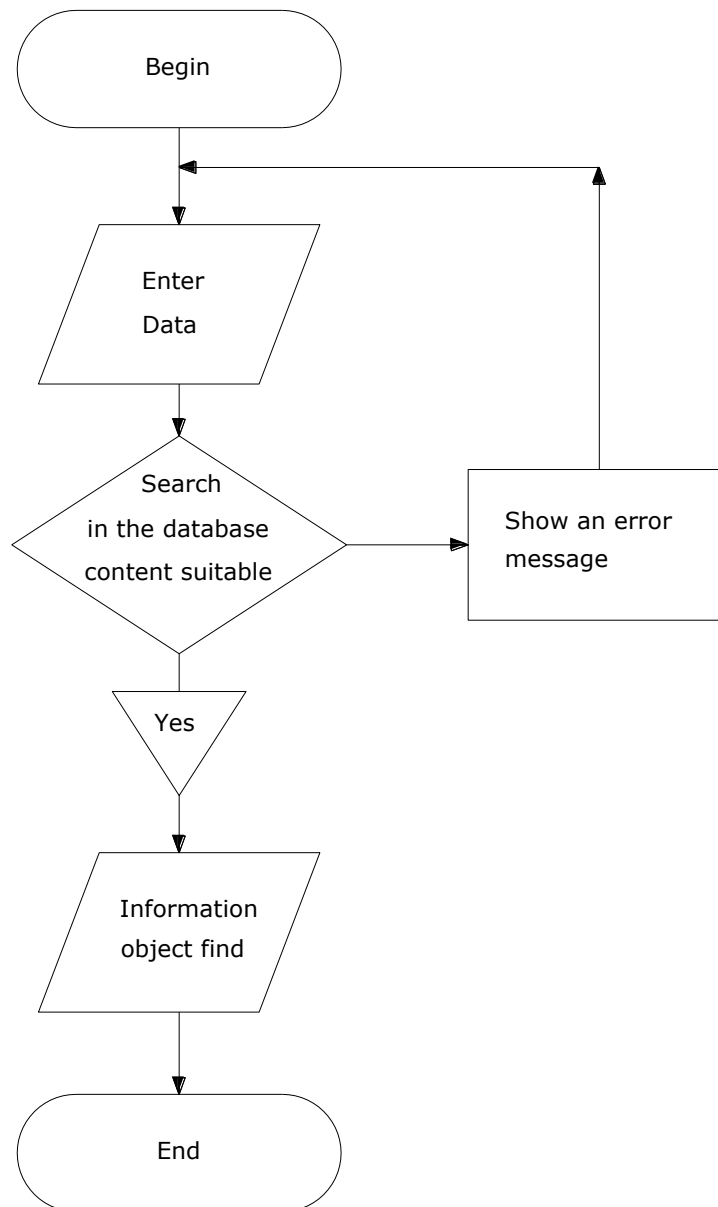
Flow chart for Login object



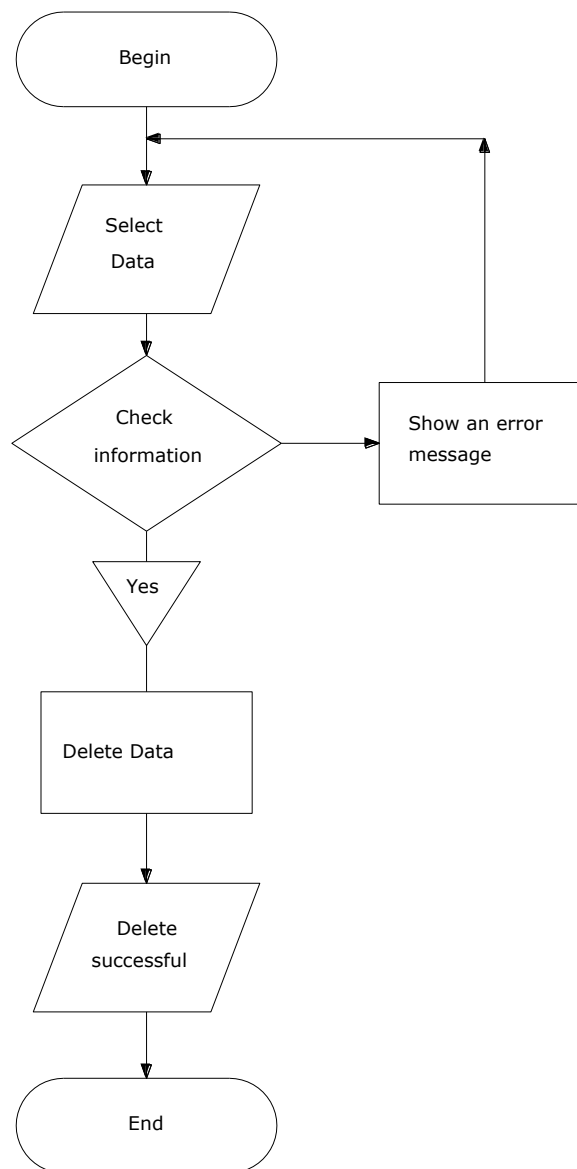
Flow chart for Add object



Flow chart for Update object



Flow chart for Search object



Flow chart for Delete object



Task Sheet

Project Ref. No. : eP/TECHBOOKS/01		Project Title :	Activity Plan Prepared By :	Date of Preparation of Activity Plan :			
Sr. No.	Task			Actual Start Date (dd/mm/yy)	Actual Days	Team Member Names	Status
1	Analyse and creat a plan to develop application	BUS ONLINE TICKET RESERVA- TION SYSTEM	NVC	12-14-09	1	NVC, HVK, DHS	Completed
2	Make a detailed Analysis for the project			12-15-09	2	NVC	Completed
3	Design Data Flow Diagram			12-17-09	1	HVK	Completed
4	Analyse database			12-18-09	1	NVC	Completed
5	Create table, constraints			12-19-09	1	HVK	Completed
6	Design Entity Relationship			12-20-09	1	NVC	Completed
7	Write Document			12-21-09	2	NVC	Completed
8	Analyse Graphic User Interface			12-23-09	1	NVC	Completed
9	Make Solution project			12-24-09	1	NVC	Completed
10	Make Layer Entity			12-25-09	1	NVC, HVK, DHS	Completed
11	Make Layer Data Access			12-26-09	2	NVC, HVK, DHS	Completed
12	Make Layer Bussiness Logic			12-28-09	2	NVC, HVK, DHS	Completed
13	Account Management tasks			12-30-10	3	NVC	Completed
14	Employee Management tasks			12-30-10	3	HVK	Completed
15	Customer management tasks			12-30-10	3	DHS	Completed
16	Route			01-02-10	3	HVK	Completed

	Management tasks						
17	Bus category management tasks			01-02-10	3	DHS	Completed
18	Ticket books management tasks			01-02-10	3	NVC	Completed
19	Installation Guide			01-05-10	1	NVC	Completed
20	Use Guide			01-06-10	1	NVC	Completed
21	Final and Full Review Project			01-06-10	3	NVC, HVK, DHS	Completed

Note :

- NVC as Nguyen Van Chuc
 - HVK as Hoang Van Kien

- DHS as Dang Huu Son



Checklist of Validations :

Option	Validated
Can a new user who gets registered, enter the application after logging in ?	Yes
Do all the options present in the application display the correct result?	Yes
Does the application's functionality resolve the user problem and satisfy their needs ?	Yes
Has the hardware and software been correctly chosen ?	Yes



Submission checklist :

Sr. No.	Particulars	Yes	No	NA	Comments
1	Are the users able to enter the Web site after validation is performed on the UserID and Password ?	X			
2	Are the users search detail which they want ?	X			
3	Do all the Web page contents are devoid of spelling mistakes ?	X			
4	Is the process working well ?	X			
5	Is the Website user-friendly ?	X			Test on Internet Explorer, Firefox and Google Chrome.



Installation Guide :

Reference in InstallationGuide.pdf



User Guide :

Reference in UserGuide.pdf



ScreenShot :

Reference in ScreenShot folder