



WIPRO
Applying Thought

FUNCTIONAL SPECIFICATION

Project Code:	AIQS-01
Project Name:	Auto Insurance Quote System

Prepared by/Date

Reviewed by/Date

Approved by/Date

Revision History

Version (x.yy)	Date of Revision	Description of Change	Reason for Change	Affected Sections	Approved By
1.00	22-Aug-2011	Initial Draft			

Affected Groups

Development Engineering
Quality Assurance
XYZ Insurance Company

List of Reference Documents

Name	Version No.
1. Request For Proposal	1.2
2.	
3.	
4.	

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1. Introduction

1.1 Background

XYZ Insurance Company provides Auto Insurance Quote services to users (the equitable transfer of the risk of a loss, from one entity (person) to another, in exchange for a premium).

1.2 Purpose

The 'Auto Insurance Quote System' application should be able to collect the information of the Customer (user - Vehicle Owner), vehicle details and driver details, and provide online quote instantly.

1.3 Scope

The scope of the Auto Insurance Quote System (AIQS) will be to provide the functionality as described in Functional Requirements below. The system will be developed on a Windows XP machine using J2EE, JSP/HTML, and JDBC.

2. Systems Overview

2.1 System Description

The Auto Insurance Quote System should support the following users.

- Administrator (A)
- User-Vehicle Owner (U)

The common functional requirements are explained below.

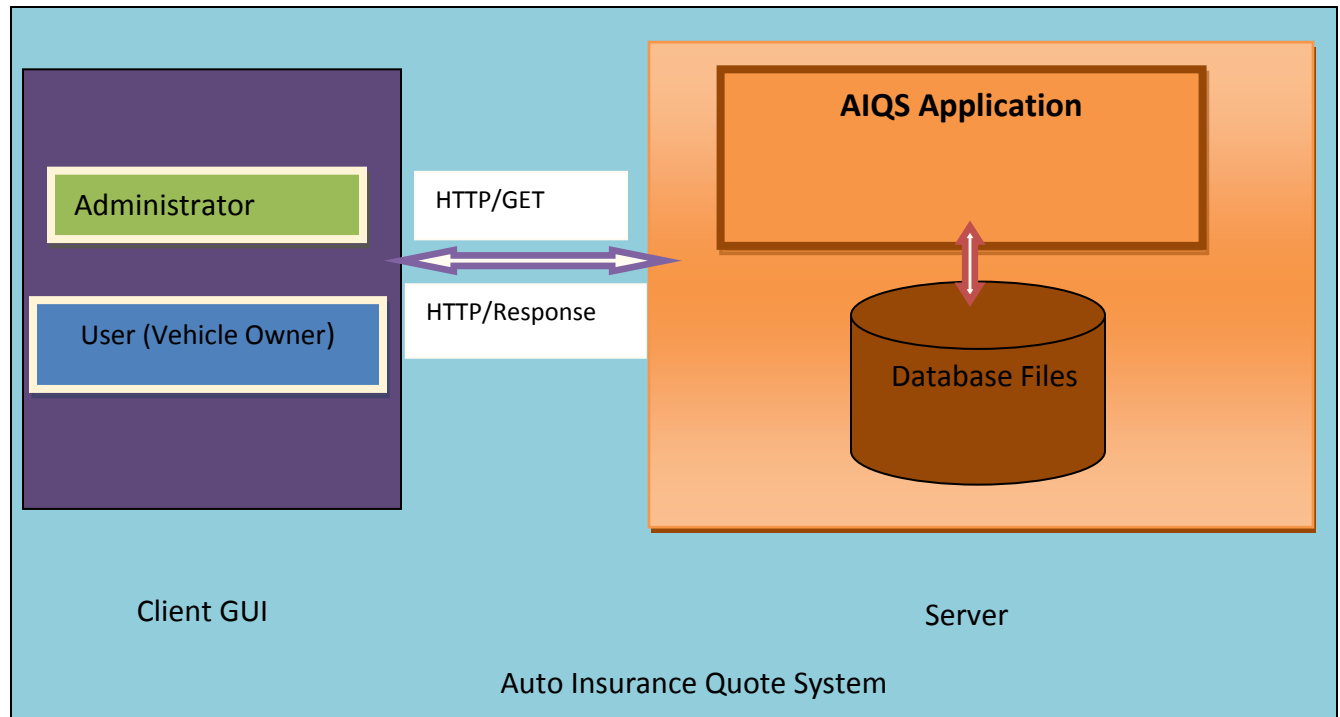
2.1.1 Authentication

Any end-user should be authenticated using a unique login ID and password.

2.1.2 Authorization

The operations supported and allowed would be based on the user type. For example, Administrator has the rights to add or delete user quotes.

The functional flow of the messages across different application components is shown below.



2.2 Environment

The system will be developed on a Windows XP machine using J2EE, JSP/HTML, and JDBC.

- Intel hardware machine (PC P4-2.26 GHz, 512 MB RAM, 40 GB HDD)
- Server – Apache Tomcat 6 or higher
- Database – Oracle 9i or higher
- JRE
- Eclipse IDE

3. Sub-system Details

3.1 Administrator

The Administrative User should be able to do the following operations once he has logged in with his unique user id and password

- View User Quote
- Modify User Quote
- Delete User Quote
- Change Password
- Quit Session

View User Quote: As part of this operation, admin should have the ability to view all the existing users Quote in the system.

(Refer Section 4: Data Organization, Table 2: QuoteDetails for further information)

Modify User Quote: As part of this operation, the admin should have the ability to modify the details of the user quote using QuoteID and get confirmation on successful modification.

(Refer Section 4: Data Organization, Table 2: QuoteDetails for further information)

Delete User Quote: As part of this operation, the admin should have the ability to delete a particular user quote and get confirmation on the successful deletion.

(Refer Section 4: Data Organization, Table 2: QuoteDetails for further information)

Change Password: As part of this operation, the administrator should have the ability to change his/her password as a security measure by keying in the following details (all mandatory).

- UserID
- OldPassword
- NewPassword
- ConfirmPassword

Quit Session: As part of this operation admin should have the ability to quit the session completely.

3.2 User (Vehicle Owner)

User Registration

An unregistered user should be able to register into the system with the following details.

Registration details include (all mandatory):

- First Name
- Last Name
- Age
- Gender
- Password
- Address (street, district, state, PIN)
- PhoneNo
- EmailID

When registration is complete, a UserID (numeric) is auto generated and displayed to the user.

(Refer Section 4: Data Organization, Table 1: UserDetails for further information)

User Login

The User (Vehicle Owner)) should be able to do the following operations once he has logged in with his unique UserID and password.

- Buy Insurance Quote
- Add Drivers Information
- Modify Drivers Information
- Delete Drivers Information
- View Quote Premium Information

- Change Password
- Quit Application

Buy Insurance Quote: As part of this operation, the logged in user should have the ability to buy Insurance Quote for his/her vehicle.

Vehicle Details include:

- PolicyType
- PolicyStartDate
- PreviousPolicyExpiryDate
- VehicleMake
- VehicleModel
- VehicleNumber
- YearOfManufacture
- DateOfRegistration
- StateOfRegistration
- CityOfRegistration
- FuelType
- ShowRoomPrice
- DOBOwner
- ProfessionOfOwner

On successful submission, a list of different insurance providers will be displayed to the user with the following data

- InsuranceProvider
- PremiumAmount
- OptionToBuy

To buy an insurance quote, the user has to choose one Insurance Provider from the list (QuoteID will be auto generated) and specify

- EngineNumber
- ChassisNumber
- PANNumber
- MailingAddress
- PaymentOption (Cheque/CreditCard)

Finally the user (vehicle-owner) has to make the payment either through Credit Card or through Cheque.

If Credit Card, specify the following details

- CreditCardType
- CreditCardNumber

If Cheque, specify the following details (collected manually by the Insurance Provider representatives- out of scope)

- ChequePickUpDate
- PreferredTime

Note: By default, the Insurance user entering the quote information will become **Primary Named Insured (PNI)**.

The PNI should renew the insured vehicle on completion of one year.

Add Drivers Information: As part of this operation the user should have the ability to add Driver related information for an insured vehicle into the system. On successful submission a DriverID should be auto generated.

Driver Details include:

- UserID
- QuoteID
- First Name
- Last Name
- Age
- Gender
- Password
- Address
- PhoneNo
- EmailID

Note: A single user (vehicle-owner) can add a total of four drivers for an insured vehicle.

Modify Drivers Information: As part of this operation, the user should have the ability to modify Driver related information for an insured vehicle into the system.

Delete Drivers Information: As part of this operation, the user should have the ability to delete Driver related information for an insured vehicle into the system.

View Quote Premium Information: As part of this operation, the user (Vehicle Owner) should have the ability to view the Quote Premium Information of his vehicle by keying in the QuoteID.

(Refer Section 4: Data Organization, Table 2: QuoteDetails for further information)

Change Password:

As part of this operation, the user (vehicle-owner) should have the ability to change his/her password as a security measure by keying in the following details (all mandatory).

(Refer section 3.1 for details)

Quit Session: As part of this operation, the user (vehicle-owner) should have the ability to quit the session completely.

Note: Details included here are indicative. Please add more details wherever required.

4. Data Organization

This section explains the data storage requirements of the Auto Insurance Quote System application and **indicative** table (database) structure. The following sections explain few of the tables required for the application and the other tables will have to be designed accordingly.

4.1 Table: User Information

The user specific details such as name, address, authentication and authorization / privileges should be kept in one or more tables, as necessary and applicable.

Table 1: UserDetails (Vehicle Owner)

Field Name	Data Type	Description
UserID	VARCHAR(9)	It will be a numeric value sequentially generated by the system and need not be passed from the client. It will be added by the system whenever a new user gets registered.
Password	VARCHAR(9)	Encrypted Password
First Name	VARCHAR(15)	First Name of user
Last Name	VARCHAR(15)	Last Name of user
Age	NUMBER	Age of user
Gender	VARCHAR(7)	Gender of user
Address	VARCHAR(30)	Address of user
PhoneNo	VARCHAR(10)	Phone No of user
LoginStatus	NUMBER	Can be either 0 or 1, will disallow any second login attempt using the same UserID.

4.2 Table: InsurancePremiumQuoteInformation

The premium specific details should be kept in one or more tables, as necessary and applicable.

Table 2: QuoteDetails

Field Name	Data Type	Description
UserID	VARCHAR(9)	UserID of the user who has logged in
QuoteID	VARCHAR(9)	The Quote-Id of the vehicle
PolicyType	VARCHAR(7)	New/Renewal
PolicyStartDate	DATE	Starting Date of the policy (New)
PreviousPolicyExpiryDate	DATE	Expiry Date of the previous policy (Renewal)
VehicleMake	VARCHAR(15)	Vehicle Make (Tata, Toyota)
VehicleModel	VARCHAR(15)	Vehicle Model (Aristo, Innova)
YearOfManufacture	NUMBER	Year of Manufacture of the vehicle
DateOfRegistration	DATE	Date of registration of the vehicle
StateOfRegistration	VARCHAR(15)	State of registration of the vehicle
CityOfRegistration	VARCHAR(15)	City of registration of the vehicle
FuelType	VARCHAR(15)	Fuel type of the vehicle
ShowRoomPrice	NUMBER	Show room price of the vehicle
DOBOwner	DATE	DOB of the owner of the vehicle
ProfessionOfOwner	VARCHAR(15)	Profession of the owner of the vehicle
InsuranceProvider	VARCHAR(15)	Name of the Insurance Provider
PremiumAmount	NUMBER	Premium Amount for the insured vehicle
EngineNumber	NUMBER	Engine Number of the Vehicle
ChassisNumber	NUMBER	Chassis Number of the Vehicle
PANNumber	NUMBER	PAN Number of the user
MailingAddress	VARCHAR(30)	Mailing address of the user
PaymentOption	VARCHAR(15)	Payment option (Credit Card or Cheque)

4.3 Table: Authentication Information

The table contains Authentication information for Administrator and User

Table 3: LoginCredentials

Field Name	Data Type	Description
<i>UserName</i>	VARCHAR(1)	A-Administrator, U-User
<i>UserID</i>	VARCHAR(9)	User Identification
<i>Password</i>	VARCHAR(9)	Password

4.4 Table: CreditCard Information

This table contains Credit Card specific information, kept in one or more tables, as necessary and applicable.

Table 4: CreditCardDetails

Field Name	Data Type	Description
<i>CardType</i>	VARCHAR(15)	Type of Credit Card (Master, Visa)
<i>CreditCardNumber</i>	VARCHAR(15)	Credit Card Number
<i>ValidityFrom</i>	DATE	Valid From
<i>ValidityTo</i>	DATE	Valid To
<i>Balance</i>	NUMBER	Existing Balance

Note: Similarly, create other necessary normalized tables.

5. Assumptions

- User Interface: The type of client interface (front-end) to be supported is – GUI based
- Each user will hold Single Premium Quote for one vehicle

6. Expectations

- The application should be designed using client server architecture
- The server should be a concurrent server servicing multiple clients
- Database can be implemented using Oracle 9i or above
- To begin with, the application should support at least 1 administrator
- Compilation and Build should be done using Eclipse IDE
- Source-code and all documents must be maintained (checked-in) in configuration management system (subversion)
- Wipro's coding standards (for Java) should be followed
- Deliverables should include use-case diagrams, design document, compiled and tested source code, test-plans, test-cases documents, test-results and release note

7. Acceptance Criteria

All P1 requirements have to be mandatorily implemented

8. Traceability to Requirements

Document Reference ID & Description: (Doc ID from which this document is derived)		
Sl. No.	Reference document: RS Requirement/Feature (Section ID/Name)	Current document: FS Location (Section ID/Name)
1.	Requirements as mentioned in Section 2.1	Section 3.1
2.	Requirements as mentioned in Section 2.2	Section 3.2, 4.1, 4.2, 4.4
3.	Requirements as mentioned in Section 2.3	Section 2.1.1, 2.1.2, 4.3
4.	Requirements as mentioned in Section 2.4	Section 3.1, 3.2

9. Acronyms and Glossary

Abbreviation	Remark
AIQS	Auto Insurance Quote System
RS	Requirement Specification
FS	Functional Specification