System Requirements Statement (SRS) –

Online Vehicle Insurance

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# Introduction

This document explains the system requirements and scope for developing e-Vehicle Insurance System.

e-Vehicle Insurance System could divide the four main parts, Customer part, Policy Provider Company part, Admin part and the acknowledgement part.

This document describes the system requirement of the Account part.

# Functional Requirements

The Account part of e-Vehicle Insurance System has three modules which are divided 13 processes described as below.

|  |  |  |
| --- | --- | --- |
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## Customer Module

Customers are the primary users of the system. They can use the system to compare quotes from multiple insurance companies, complete the entire application process online, track the status of their insurance policy, and make changes to their insurance policy.

### Account Creation Process

* Online Vehicle Insurance System compels to create the account before using it. So, this System should provide the function which makes customer creates new account.
* When customer creates new account, the function demands four information described as below.

1. Login information
2. Contact Details

* The Login information

The Login information consists of some items described as below.

1. UserID
2. Password
3. First Name
4. Last Name
5. E-mail address
6. User Type
   * All items are compulsory demanded.
   * UserID

* The UserID should be unique. If the UserID correspond with not case-sensitive to other which is previously registered, the UserID should not be registered as an account.
  + Password
* The Password has constrains which makes the Password consists of more than or equal 8 and less than or equal 16 characteristics including characters described as below.

1. Numeric figure (at least one)
2. Capital alphabet (A-Z)(at least one)
3. Small alphabet (a-z)(at least one)
4. Special character (#, $, %, &, etc.) (at least one)

* The Password is masked by dummy characters. The re-entering Password is demanded.
* The Password must be encrypted in e-Vehicle Insurance System.
  + User Type

The User Type falls into three categories described as below.

1. Customer
2. Policy Provider Company
3. Admin

* The User Type defines also three types of user; "Customer user", "Policy Provider Company", and "Admin”.
* In an Account Creation Process, the user can select Customer.
* No one could select The Admin, because Admin is implemented to E-Vehicle Insurance System in advance.
* Contact Details
* The Contact Detail consists of some items described as below.

1. Permanent Address
2. Contact Phone No
   * All items are compulsory demanded.
   * Permanent Address

* Permanent Address should be filled.
* But only the state should be selected from options.
* The Security Question information

The Security Question information is needed when customer lost their Password. This information consists of two items described as below.

1. Selected Question
2. Answer
   * All items are compulsory demanded.
   * Some questions which are difficult to answer for anyone else are prepared in advance.

E.g. which color do you like most?

* + A question should be selected from options by the customer, and the Answer is registered by the customer.
* Login information should be entered on one screen, and then customer information and Security Question information should be entered on another screen.

### Login Process

* E-Vehicle Insurance System always compels user authentication before using itself except when a new account is successfully created.
* The user authentication demands UserID and Password. The UserID and the Password should be checked in three ways.
  + First, The UserID and the Password should be existed and correct.
* If The UserID and the Password are not equal to what the user has registered, the user authentication cannot be provided.
  + Second, the User Type linked to the UserID should be "customer".
* When the User Type is "Customer", then user can be placed on “Customer Home”.
  + Finally, UserID should be available.
* The Administrator can decide whether the UserID is available or suspended – Refer to the SRS of the Admin part.
* If Customer is rejected, user authentication is not provided for system user.
* The Customer account should alive for so long as the duration decided by Admin.
* Only when the three checks are successfully completed, Customerr can be placed on respected page.
* The “Customer Home” provides the some items described as below.

1. A trigger to logout
2. A trigger to update Account
3. A trigger to Change Password
4. A trigger to Compare Quotes
5. A trigger to Apply for Insurance
6. A trigger to Track Policy Status
7. A trigger to Make Changes to Policy
8. A trigger to File a Claim
9. A trigger to View Policy Documents
10. A trigger to Contact Customer Support

### Forgot Password Process

* When system user lost their Password, the recovery method should be provided by e-Vehicle Insurance system.

The recovery method is described as below.

* + First, system user enters their UserID for e-Vehicle Insurance System.
  + Next, E-Vehicle Insurance System demands the Answer which has been registered since when the Account was created.
  + Only when the Answer is correct,Customer get the new password by E-mail which also has been registered since when the Account was created.
  + The new password is automatically generated by e-Vehicle Insurance System.
* Of course, the new password should consist of more than or equal 8 and less than or equal 16 characteristics including at least a numeric figure, a capital alphabet, a small alphabet, and a special character.
* As a consequence, The Customer could get the Customer authentication using the new password.
  + Then, the Customer had better change the new password manually.
* If the Answer is not correct, otherwise, the correct Answer is demanded for user again.
  + In that case, Of course, Customer couldn’t get the new password.

### Change Password Process

* When Customer wants to change their Password, the measure should be provided by e-Vehicle Insurance System.
* Therefore, E-Vehicle Insurance System should provide the function which is available after getting the Customer authentication.
* The function demands the current password and the new password.
  + Of course, the new password should consist of more than or equal 8 and less than or equal 16 characteristics including at least a numeric figure, a capital alphabet, a small alphabet, and a special character.
  + The current password and the new password are masked by using dummy characters.
  + The new password is demanded to enter twice to avoid a typing error.
* Only when the current password is correct, Customer could change their Password.
* When the current password is changed into new password, E-Vehicle Insurance System compels user authentication again.

### Update Account Process

* E-Vehicle Insurance System should provide the function which makes the account updated for Customer.
* The information Customer could update is described below.

1. Login information
2. User information
3. Security Question Information

* The Login information

The up-datable items as described below.

1. First Name
2. Last Name
3. E-mail address
   * All items are compulsory demanded, but updating is optional.

* The User information

The up-datable items as described below.

1. User Name
2. User Phone No
3. E-mail address
4. Permanent address
   * All items are compulsory demanded, but updating is optional.

* The Security Question information

The up-datable items as described below.

1. Selected Question
2. Answer
   * All items are compulsory demanded, but updating is optional.

### Compare Quotes

The customer can compare quotes from multiple insurance companies. The customer will need to enter their vehicle information and driving history, and the system will generate quotes from a variety of insurance companies.

**Steps:**

1. The customer visits the website and clicks on the "Compare Quotes" button.
2. The customer enters their vehicle information and driving history.
3. The system generates quotes from a variety of insurance companies.
4. The customer reviews the quotes and selects the one that they want to purchase.
5. The customer completes the purchase process.

### Apply for insurance

The customer can apply for insurance online. The customer will need to enter their personal information, vehicle information, and driving history. The system will then process the application and issue a policy if the customer is approved.

**Steps:**

1. The customer visits the website and clicks on the "Apply for Insurance" button.
2. The customer enters their personal information, vehicle information, and driving history.
3. The system processes the application.
4. If the customer is approved, the system issues a policy.
5. The customer can view the policy details and print the policy.

### Track policy status

The customer can track the status of their insurance policy. The customer can see the policy number, start date, and end date of their policy. The customer can also see the policy limits and deductibles.

**Steps:**

1. The customer visits the website and clicks on the "Track Policy Status" button.
2. The customer enters their policy number.
3. The system displays the policy details, including the policy number, start date, end date, policy limits, and deductibles.

### Make changes to policy

The customer can make changes to their insurance policy. The customer can add or remove policy if aplicable.

**Steps:**

1. The customer visits the website and clicks on the "Make Changes to Policy" button.
2. The customer selects the changes that they want to make.
3. The system updates the policy.
4. The customer can view the updated policy details.

### File a claim

The customer can file a claim if their vehicle is damaged or stolen. The customer will need to provide the system with information about the accident, such as the date, time, and location of the accident. The customer will also need to provide information about the damage to their vehicle.

**Steps:**

1. The customer visits the website and clicks on the "File a Claim" button.
2. The customer provides information about the accident, such as the date, time, and location of the accident.
3. The customer provides information about the damage to their vehicle.
4. The system submits the claim to the insurance company.
5. The insurance company will investigate the claim and determine if it is covered.

### View policy document

The customer can view their policy documents, such as the insurance policy and the declarations page.

**Steps:**

1. The customer visits the website and clicks on the "View Policy Documents" button.
2. The system displays the policy documents.
3. The customer can print the policy documents.

**1.1.12** **Contact customer support**

The customer can contact customer support if they have any questions or problems.

**Steps:**

1. The customer visits the website and clicks on the "Contact Customer Support" button.
2. The customer provides their contact information and a detail description of their question or problem.
3. A customer support representative will contact the customer to help them resolve their question or problem.

#### Policy Provider Company Module

### Account Creation Process

* E-Vehicle Insurance System compels to create the account before using it. So, E-Vehicle Insurance System should provide the function which makes customer creates new account.
* When customer creates new account, the function demands four information described as below.

1. Login information

2.Contact Details

3.Security Question Information

4.Payment information.

* The Login information

The Login information consists of some items described as below.

5.UserID

6.Password

7.First Name

8.Last Name

9.E-mail address

10.User Type

* + All items are compulsory demanded.
  + UserID
* The UserID should be unique. If the UserID correspond with not case-sensitive to other which is previously registered, the UserID should not be registered as an account.
  + Password
* The Password has constrains which makes the Password consists of more than or equal 8 and less than or equal 16 characteristics including characters described as below.

1.Numeric figure (at least one)

2.Capital alphabet (A-Z)(at least one)

3.Small alphabet (a-z)(at least one)

4.Special character (#, $, %, &, etc.) (at least one)

* The Password is masked by dummy characters. The re-entering Password is demanded.
* The Password must be encrypted in e-Vehicle Insurance System.
  + User Type

The User Type falls into three categories described as below.

1.Customer

2.Policy Provider company

3.Admin

* The User Type defines also three types of user; " Customer ", "Policy Provider company ", and "Admin”.
* In an Account Creation Process, the user can select Agent.
* No one could select The Admin, because Admin is implemented to e-Vehicle Insurance System in advance.
* Contact Details
* The Contact Detail consists of some items described as below.

1.Permanent Address

2.Contact Phone No

* + All items are compulsory demanded.
  + Permanent Address
* Permanent Address should be filled.
* But only the state should be selected from options.
* The Security Question information

The Security Question information is needed when Policy Provider company Password. This information consists of two items described as below.

1. Selected Question
2. Answer
   * All items are compulsory demanded.
   * Some questions which are difficult to answer for anyone else are prepared in advance.

E.g. which color do you like most?

* + A question should be selected from options by the Policy Provider company, and the Answer is registered by the Policy Provider company.
* Login information should be entered on one screen, and then Policy Provider company information and Security Question information should be entered on another screen.

### Login Process

* E-Vehicle Insurance System always compels Policy Provider company authentication before using itself except when a new account is successfully created.
* The user authentication demands UserID and Password. The UserID and the Password should be checked in three ways.
  + First, The UserID and the Password should be existed and correct.
* If The UserID and the Password are not equal to what the user has registered, the user authentication cannot be provided.
  + Second, the User Type linked to the UserID should be "user".
* When the User Type is "Policy Provider company", user can be placed on “Policy Provider company”.
  + Finally, UserID should be available.
* The Admin can decide whether the UserID is available or suspended – Refer to the SRS of the Admin part.
* If user is rejected, user authentication is not provided for Policy Provider company.
* The Policy Provider company account should alive for so long as the duration decided by Admin.
* Only when the three checks are successfully completed, Policy Provider company can be placed on respected page.
* The “Policy Provider company Home” provides the some items described as below.

1. A trigger to logout
2. A trigger to update Account
3. A trigger to Change Password
4. A trigger to Manage Policies(add new or remove old policies)
5. A trigger to Submit Claims to customers
6. A trigger to Generate Reports
7. A trigger to Contact Customer Support

### Forgot Password Process

* When Policy Provider Company lost their Password, the recovery method should be provided by e-Vehicle Insurance system.

The recovery method is described as below.

* + First, Policy Provider company enters their UserID for e-Vehicle System.
  + Next, E-Vehicle Insurance System demands the Answer which has been registered since when the Account was created.
  + Only when the Answer is correct, Policy Provider company get the new password by E-mail which also has been registered since when the Account was created.
  + The new password is automatically generated by e-Vehicle Insurance System.
* Of course, the new password should consist of more than or equal 8 and less than or equal 16 characteristics including at least a numeric figure, a capital alphabet, a small alphabet, and a special character.
* As a consequence, The Policy Provider Company could get the user authentication using the new password.
  + Then, the Policy Provider Company had better change the new password manually.
* If the Answer is not correct, otherwise, the correct Answer is demanded for Policy Provider Company again.
  + In that case, Of course, Policy Provider Company couldn’t get the new password.

### Change Password Process

* When Policy Provider Company wants to change their Password, the measure should be provided by e-vehicle Insurance System.
* Therefore, E-Vehicle Insurance System should provide the function which is available after getting the Policy Provider Company authentication.
* The function demands the current password and the new password.
  + Of course, the new password should consist of more than or equal 8 and less than or equal 16 characteristics including at least a numeric figure, a capital alphabet, a small alphabet, and a special character.
  + The current password and the new password are masked by using dummy characters.
  + The new password is demanded to enter twice to avoid a typing error.
* Only when the current password is correct, Policy Provider Company could change their Password.
* When the current password is changed into new password, E-Vehicle Insurance System compels Policy Provider Company authentication again.

### Update Account Process

* E-Vehicle Insurance System should provide the function which makes the account updated for Policy Provider Company.
* The information of Policy Provider Company could update is described below.

1. Login information

2. User information

3. Security Question Information

* The Login information

The updatable items as described below.

1. First Name
2. Last Name
3. E-mail address
   * All items are compulsory demanded, but updating is optional.

* The User information

The updatable items as described below.

1. User Name
2. User Phone No
3. E-mail address
4. Permanent address
   * All items are compulsory demanded, but updating is optional.

* The Security Question information

The updatable items as described below.

1. Selected Question
2. Answer
   * All items are compulsory demanded, but updating is optional.

#### Manage Policies

• Policy Provider Company can manage their customers' policies. This includes viewing policy details, making changes to policies, and submitting claims.

1. The Policy Provider Company logs into the system.
2. The Policy Provider Company selects the customer whose policies they want to manage.
3. The Policy Provider Company views the policy details, such as the policy number, start date, end date, policy limits, and deductibles.
4. The Policy Provider Company makes changes to the policy, such as adding or removing coverages, or changing the deductible.
5. The Policy Provider Company submits the changes to the system.

#### Submit Claims

Policy Provider Company can submit claims on behalf of their customers. This includes gathering information about the claim, such as the date, time, and location of the accident, and the damage to the vehicle.

1. The Policy Provider Company logs into the system.
2. ThePolicy Provider Company selects the customer whose claim they want to submit.
3. The Policy Provider Company gathers information about the claim, such as the date, time, and location of the accident, and the damage to the vehicle.
4. The Policy Provider Company submits the claim to the system.
5. The system forwards the claim to the insurance company.

**2.2.8 Generate Reports**

Policy Provider Company can generate reports on their customers' policies. This includes reports on policy status, claims history, and premium payments.

1. The Policy Provider Company logs into the system.
2. The Policy Provider Company selects the reports that they want to generate.
3. The system generates the reports.
4. The Policy Provider Company can view the reports.

**2.2.9 Contact Customer Support**

•Policy Provider Company can contact customer support if they have any questions or problems.

1. The Policy Provider Company logs into the system.
2. The Policy Provider Company clicks on the "Contact Customer Support" button.
3. The Policy Provider Company provides their contact information and a detail description of their question or problem.
4. A customer support representative will contact the agent to help them resolve their question or problem.

#### Admin Module

**•** Adminshould be responsible for following activities**,**

### Login Process

* E-Vehicle Insurance System always compels user authentication before using itself except when a new account is successfully created.
* The user authentication demands UserID and Password. The UserID and the Password should be checked in three ways.
  + First, The UserID and the Password should be existed and correct.
* If The UserID and the Password are not equal to what the admin has registered, the Admin authentication cannot be provided.
  + Second, the User Type linked to the UserID should be "Admin".
* When the User Type is "Admin", user can be placed on “Admin Home”.
  + Finally, UserID should be available.
* The Admin can decide whether the UserID is available or suspended – Refer to the SRS of the Admin part.
* If user is rejected, user authentication is not provided for system user.
* The Admin account should alive for so long as the duration decided by Admin.
* Only when the three checks are successfully completed, Admin can be placed on respected page.
* The “Admin Home” provides the some items described as below.

1. A trigger to logout
2. A trigger to update Account
3. A trigger to Change Password
4. A trigger to Create and Manage User Accounts
5. A trigger to Add and Remove Insurance Companies
6. A trigger to Manage System Settings
7. A trigger to View Reports

### Forgot Password Process

* When Admin lost their Password, the recovery method should be provided by e-Vehicle Insurance system.

The recovery method is described as below.

* + First, Admin enters their UserID for e-Vehicle Insurance System.
  + He will enter the E-mail id since when the Account was created.
  + Only when the E-mail Id is correct, Admin get the new password by E-mail which also has been registered since when the Account was created.
  + The new password is automatically generated by e-Vehicle Insurance System.
* Of course, the new password should consist of more than or equal 8 and less than or equal 16 characteristics including at least a numeric figure, a capital alphabet, a small alphabet, and a special character.
* As a consequence, The Admin could get the Admin authentication using the new password.
  + Then, the Admin had better change the new password manually.

### Change Password Process

* When Admin wants to change his Password, the measure should be provided by e-Vehicle Insurance System.
* Therefore, E-Vehicle Insurance System should provide the function which is available after getting the Admin authentication.
* The function demands the current password and the new password.
  + Of course, the new password should consist of more than or equal 8 and less than or equal 16 characteristics including at least a numeric figure, a capital alphabet, a small alphabet, and a special character.
  + The current password and the new password are masked by using dummy characters.
  + The new password is demanded to enter twice to avoid a typing error.
* Only when the current password is correct, Admin could change his Password.
* When the current password is changed into new password, E-Vehicle Insurance System compels user authentication again.

### Update Account Process

* E-Vehicle Insurance System should provide the function which makes the account updated for Admin.
* The information Admin could update is described below.

1. Login information
2. User information
3. Security Question Information

* The Login information

The updatable items as described below.

1. First Name
2. Last Name
3. E-mail address
   * All items are compulsory demanded, but updating is optional.

* The User information

The updatable items as described below.

1. User Name
2. User Phone No
3. E-mail address
4. Permanent address
   * All items are compulsory demanded, but updating is optional.

* The Security Question information

The updatable items as described below.

1. Selected Question
2. Answer
   * All items are compulsory demanded, but updating is optional.

#### Create and manage user account

* The admin can create a new user account.
* The admin can change the permissions for a user account.
* The admin can delete a user account.

#### Add and remove insurance companies

* The admin can add a new insurance company.
* The admin can remove an insurance company.
* The admin can change the information about an insurance company.

#### **Manage system setting**

* The admin can change the system's appearance.
* The admin can configure the system's security settings.
* The admin can manage the system's logs.

#### 2.3.8 View reports

* The admin can view reports on the system's performance.
* The admin can filter the reports by date, metric, or other criteria.

#### 2.5 Use Case Diagram

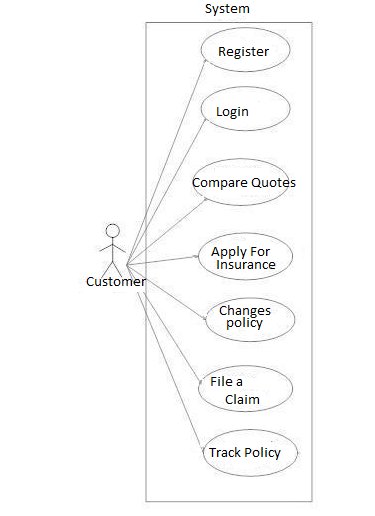
**Admin:**

****

*Fig. Use case diagram for admin*

1. In Admin use case diagram Admin is the Actor.
2. Admin can handle following use cases:
3. Login
4. Report Generation
5. Controls account

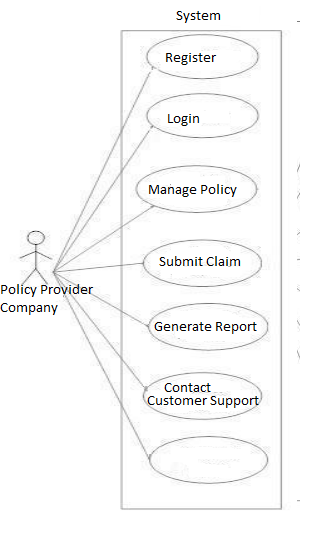
**Customer:**



*Fig. Use case diagram for Customer.*

1. In Customer use case diagram Customer is the Actor.
2. Customer can handle following use cases:
3. Register
4. Login
5. Compare Quotes
6. Apply for Insurance
7. Track Policy Status
8. Make Changes to Policy
9. File a Claim
10. View Policy Documents
11. Contact Customer Support

**Policy Provider Company:**



*Fig. Use case diagram for Policy Provider Company.*

1. In Policy Provider Company use case diagram Policy Provider Company is the Actor**.**
2. Policy Provider Company can handle following use cases:
3. Register
4. Login
5. Manage Policies
6. Submit Claims
7. Generate Reports
8. Contact Customer Support