**1 Abstract**

* 1. Background

With the internationalization of society, people's expenditure on travel accounts for a large part of their total expenditure. So travel Insurance seems increasingly necessary.

We accepted the Commission of the travel insurance company to understand their needs, and finally completed the development of the policy purchase system.

1.2 About our system

Our software is a cloud-based insurance service system that is developed according to the actual requirements of the Hibernia-Sino Travel Insurance Company. It includes client-side and employee-side. Users can both operate from web pages and mobile devices, and employees of the company can use the same site to manage users’ operations.

Users can upload their own information through our system application form, and communicate with the employee of the company.

Through this system, the company can formulate the form policy and form type introduction. The form information uploaded by users is revised and reviewed. And timely feedback to the user's consultation. It is worth mentioning that our system has strong extensibility and flexibility. Because employee can dynamically modify the text and information of the main page of the system at any time in the employee interface, at the same time, it is also conducive to the supplement of more functions and the testing and perfection of the system in the later period.

1.3 About us

There are six people in our group. We have formulated a series of intra-group systems, rationally planned the time, and held regular meetings once a week, even if we adjust the progress of work. We adopted the Vue framework, and the back end used the mainstream technology of spring boot to develop the system for two months. Our overall development process is on Git.

1.4 Document writing purpose

The purpose of this document is to make a summary and review of the development work and learning in the past few months by describing in detail the technology used in the development of the system, the functions completed, the assignment of developers' work, the advantages and disadvantages of the system and the space for progress. In order to achieve the purpose of further learning.

**2 Introduction**

2.1 Task overview:

2.1.1 Objective

This is an insurance company's product introduction and online trading software. Our system should meet the basic needs of employees when purchasing insurance products. For example, user registration, employee user login, user selection of products, delivery form, employee approval form and other basic functions.

2.1.2 Assumptions and Constraints

* We assume that each user has their own mailbox, so we use the mailbox to verify the user registration.
* We assume that the baggage insurance required for the product is divided into five categories: Baggage Insurance, Baggage Insurance Plus, OnTime Insurance, Safety Insurance and Child Insurance.
* We assume that each user may apply for multiple forms, and they can view the real-time progress of those forms at the same time.
* We assume that each purchased user may purchase for a form when they purchase it and may also purchase it for others.

2.2 Completed basic functions and extended functions:

Completed basic functions:

* Visitors can browse the interface, query form types and policy policies
* User login and employee login
* User registration
* Users and employees can see the insurance product introduction and related policies of the homepage.
* User submits insurance application form
* Users can check the progress of the form they submitted even
* Users and employees can modify personal information, such as uploading avatars, filling in phone mailboxes, and more.
* Employees can see detailed personal information of all registered users and details of the forms they apply for
* Employees can annotate and review the application form
* Employees can develop their own policy policies, and only those policy applications that have agreed to the policy will be granted approval.
* This system supports bilingual

Completed advance function:

* Users can send information to employees
* Employees can receive inquiries from users and even respond.
* Employees can dynamically modify the image and text information of the system homepage through the employee
* This system has its own domain name: http://123.207.144.103/
* The database of this system is uploaded to the cloud, which can accommodate more user information and update the information in time.
* User password encryption

2.3 unresolved issues

User's qq login attempt has not been implemented

Cloud database needs to be optimized

If you give us more time, I believe that these functions will be perfected.

2.4 Application technology and operating environment

Server Appliance

The main frequency of CPU is more than 1GHz, the memory is more than 1 GB , and the free space of hard disk is more than 1GB.

Software Dependency

* Database Server: MySQL 5.5.57
* Application Server: Tomcat 8.5.12
* Web Server: Nginx 1.15.10
* PHP Version: PHP-5.4
* Key-value Database : Redis 5.0.3

2.5 test plan

2.5.1 Understanding Users, Usability Testing:

Through discussion and online search for information, our team fully understands the users' needs, and then it is information security and quick trial. So we streamlined the main interface information. Put the most valuable information in the most obvious position. It simplifies the necessary information at the time of registration and hopes to bring in more registrations.

2.5.2 Functional Test:

User interface testing：Each team member clicks on the interface multiple times to check if the response is normal.

Code review: We check the open interface (API) to see if it always returns the same result and check if the code provides the protection it deserves.

2.6 Division of labor

Responsible for front-end development: Zhao Wenqi, Dong Yuehui and Zhen Ziyang

Responsible for back-end development: Zhang Jinming, Zhang Tianhui, Zhang Lei.

A more detailed division of labor will be described in detail below.