

Software Requirements Specification

For

Parcel Transportation Supporting (PTS) System

Version 1.0 approved

Prepared by Group: Team 1 – Capstone 1

Mentor:

Msc. Luong Vo Van

Group Members:

- 1. Linh Do Bao**
- 2. Huong Vo Mai**
- 3. Hanh Tran Duc**
- 4. Han Truong Thi Ngoc**

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Revision History

Table 1: Revision History

Name	Date	Reason For Changes	Version
Linh Do Bao	17/08/2011	Create new template	1.0
Han Truong Ngoc	17/08/2011	Create Use case Diagram and Use case Detail	1.0
Huong Vo Mai	17/08/2011	Use case Detail	1.0
Linh Do Bao & Hanh Tran Duc	18/08/2011	Review	
Han Truong Ngoc and Huong Vo Mai	18/08/2011	Modify and Release	1.1

1. Introduction

1.1 Purpose

The following is an SRS (Software Requirements Specification) that will define the requirements and specifications of the Parcel Transportation Supporting system that is being developed.

The purpose of this document is to fully describe the external behavior of the application. Additionally this document describes the non-functional requirements, design constraints, and other factors necessary to provide a complete, comprehensive description of the software requirements.

1.2 Project Statement

Currently problem of business hasn't provided service which helps to customer track their parcel yet. Customer only knows their parcel come target when receiver received it.

1.3 Intended Audience and Reading Suggestions

Section 1 of this document should be read by everyone. This section gives the reader all the information needed to read the rest of the document as well as a general overview of the problem, the solution and describes how the solution will benefit the company.

Section 2 of this document should be read by everyone. This section gives a detailed textual description the system, describes how the system might tie into already existing systems, lists the functionality's that will exist in the system, depicts the types of users of the system, describes general constraints and indicates the assumptions and dependencies.

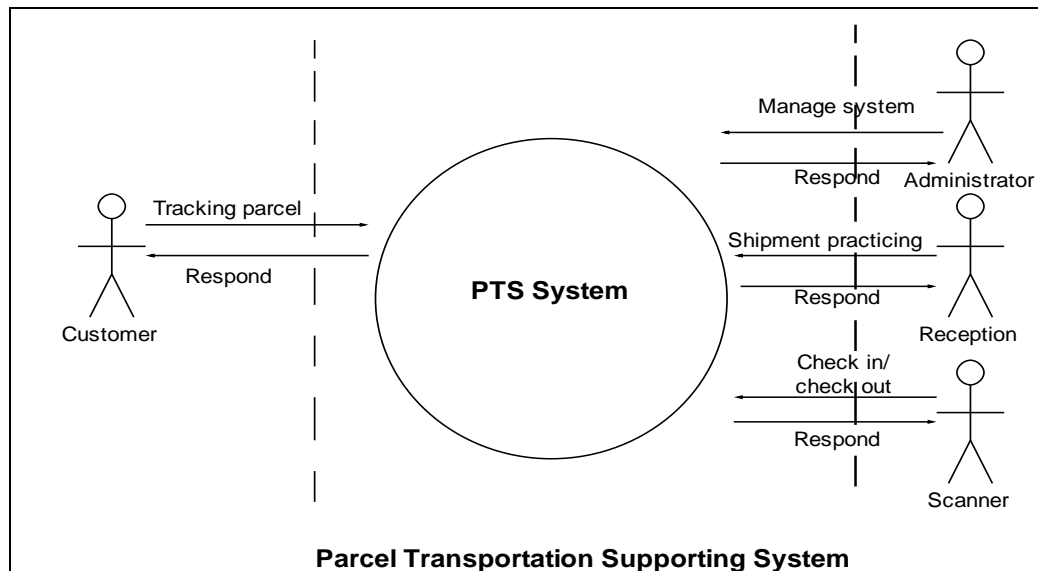
Section 3 of this document should be read by the System Designer's, implementers and maintainers in it's entirety. For those who would like more information on a specific functionality they can consult this section to get more information on it. This section contains a structured and detailed explanation of all functionality's, the external interfaces to the system, performance requirements, design constraints, quality attributes and other requirements.

Table 2: Document readers and their recommended reading

Reader Type	Recommended Reading
User	Section 1 (all), 2 (all)
Manager	Section 1 (all), 2 (all)
Requirement Engineer	Section 1 (all), 2 (all), 3(all)
System Designer	Section 1 (all), 2 (all), 3(all)
Implementer	Section 1 (all), 2 (all), 3(selective)
System Tester	Section 1 (all), 2 (all), 3(all)
System Maintainer	Section 1 (all), 2 (all), 3(selective)

2. Overall Description

2.1 System Context Diagram



2.2 Product Functions

Below is a list of all functions that can be found in the system with a description of the function and its priority. The priorities range from 1 to 3, with 1 being the highest priority and 3 being the lowest.

Table 3: Function's priorities range

Priority	Detail
1	Must have
2	Should have
3	Nice to have

Table 4: Product Functions

ID	Function	Description	Priority
F01	Login	This function is used for reception, scanner and administrator to login to the system	1
F02	Logout	This function is used for reception, scanner and administrator to logout to the system	1
F03	Change password	This function is used for reception, scanner and administrator to change their password	2
F04	Create new shipment	This function is used for reception to create new shipment when the customer want to uses the transport service	1
F05	Modify shipment	This function is used for reception to modify shipment when the customer want to change the information in shipment	2
F06	Track shipment for Reception	This function is used to help reception view the journey of the shipment in detail	1
F07	Cancel shipment	This function is used for reception to cancel the shipment if the customer want (just in the accepted time range)	2
F08	Track shipment for Customer	This function is used to help customer view the journey of the shipment in overview (Just view the shipment ID and the state)	1
F09	Add new account	This function is used for administrator to create new account (reception or scanner)	1
F10	Delete account	This function is used for administrator to delete account (reception or scanner)	1
F11	Modify account	This function is used for administrator to modify account (reception or scanner)	1
F12	View account	This function is used for administrator to list the account or view the account detail	1
F13	View dashboard	This function is used for administrator to view the dashboard that summary the information of system.	2
F14	Add station	This function is used for administrator to create new station	1
F15	Modify station	This function is used for administrator to modify station	1
F16	Delete station	This function is used for administrator to delete station	1
F17	Add route	This function is used for administrator to create new route	1
F18	Modify route	This function is used for administrator to modify route	1
F19	Delete route	This function is used for administrator to delete route	1
F20	Add device	This function is used for administrator to create new device	1
F21	Modify device	This function is used for administrator to modify device	1

F22	Delete device	This function is used for administrator to delete device	1
F23	Sign Role and Station	This function is used for administrator to sign the role and the station that the account must be	1
F24	Check in	This function is used for scanner to scan the check in shipment and submit the list of scanned ID to web	1
F25	Check out	This function is used for scanner to scan the checkout shipment and submit the list of scanned ID to web	1
F26	Create report top 10 reception serve in month	This function is used for administrator	2
F27	Create report top 10 reception serve in year	This function is used for administrator	2
F28	Create report number of shipment in and out each station in month	This function is used for administrator	2
F29	Create report number of shipment in and out each station in year	This function is used for administrator	2
F30	Create report number of staff in each station	This function is used for administrator	2
F31	Create report number of device in each station	This function is used for administrator	2
F32	Create report number of shipment in day	This function is used for reception	2
F33	Create report number of shipment in month	This function is used for reception	2
F34	Create report number of canceled shipment in day	This function is used for reception	2
F35	Create report number of canceled shipment in month	This function is used for reception	2
F36	Create report number of customers in day	This function is used for reception	2
F37	Create report number of customers in month	This function is used for reception	2
F38	Create report number of shipment by service in day	This function is used for reception	2
F39	Create report number of shipment by service	This function is used for reception	2

	in month		
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2.3 Users and Characteristics (Actors)

The following is a list of the actors in the system and their description.

Table 5: System Actors

Actor	Description
Customer	This type of user is the customer of transport company who send the parcel and can track for specific parcel by shipment ID.
Reception	Reception gets the new parcel, input the basic information of this parcel and generate the image code, give to the customer the parcel tracking link via email.
Scanner	The scanner scans the parcel when it check in or check out the station. Each parcel will be confirmed on the server.
System Administrator	System administrator manages all the staff based on managing accounts. Each staff has one account and each account defines the station where this staff works on.

2.4 Operating Environment

a. Web component: The web component is operated on app engine by Google.

Feature	Default Instances	Backend Instances
Deadlines	30-second deadline for HTTP requests, 10-minute deadline for tasks	Requests to back ends can run indefinitely. A backend can choose to handle <code>/_ah/start</code> and execute a program or script for many hours without returning an HTTP response code.
CPU	Flexible, billed by CPU-hour	Configurable from 600MHz–4.8GHz, included in the hourly price of the instance uptime.
Memory	Low memory cap (128MB).	Configurable memory limit, from 128MB to 1GB of memory per instance.
Residence	Instances are evicted from memory based on usage patterns, unless they are marked Always On.	You can configure back ends to use resident instances, which remain in memory, so state is preserved across requests. When back ends are restarted, you usually have 30 seconds to finish before shutdown.
Startup and Shutdown	Instances are created on demand to handle requests and automatically turned down when idle.	Back ends are sent a start request automatically by App Engine in the form of an empty request to <code>/_ah/start</code> . A backend that is stopped with <code>appcfg back ends stop</code> or using <code>Shutdown</code> in the

		Administration Console has 30 seconds to finish handling requests before it is forcibly terminated.
Instance Addressability	Instances are anonymous.	<p>Instances are individually addressable at a URL of this form:</p> <p><code>[instance].[backend].[app].appspot.com</code></p> <p>You can reliably cache state in each instance and retrieve it in subsequent requests.</p>
Scaling	App Engine scales the number of instances automatically in response to processing volume.	<p>You configure the number of instances of each backend in <code>backends.xml</code> or <code>backends.yaml</code>. The number of instances usually corresponds to the size of a dataset being held in memory or the desired throughput for offline work. A dynamic backend is configured with a maximum number of instances; the number of live instances scales with the processing volume. You can adjust the number of instances of a backend very quickly, without stopping instances that are currently running, using the <code>configure</code> command.</p>
Public vs. Private HTTP Requests	Instances can handle private and public requests.	Instances handle private requests by default, but you can configure them to handle public requests.
Concurrent Requests	Instances marked <code><threadsafe></code> can serve a small number of requests in parallel.	Instances can specify how many requests to serve in parallel with <code><max-concurrent-requests></code> .

b. Browser:

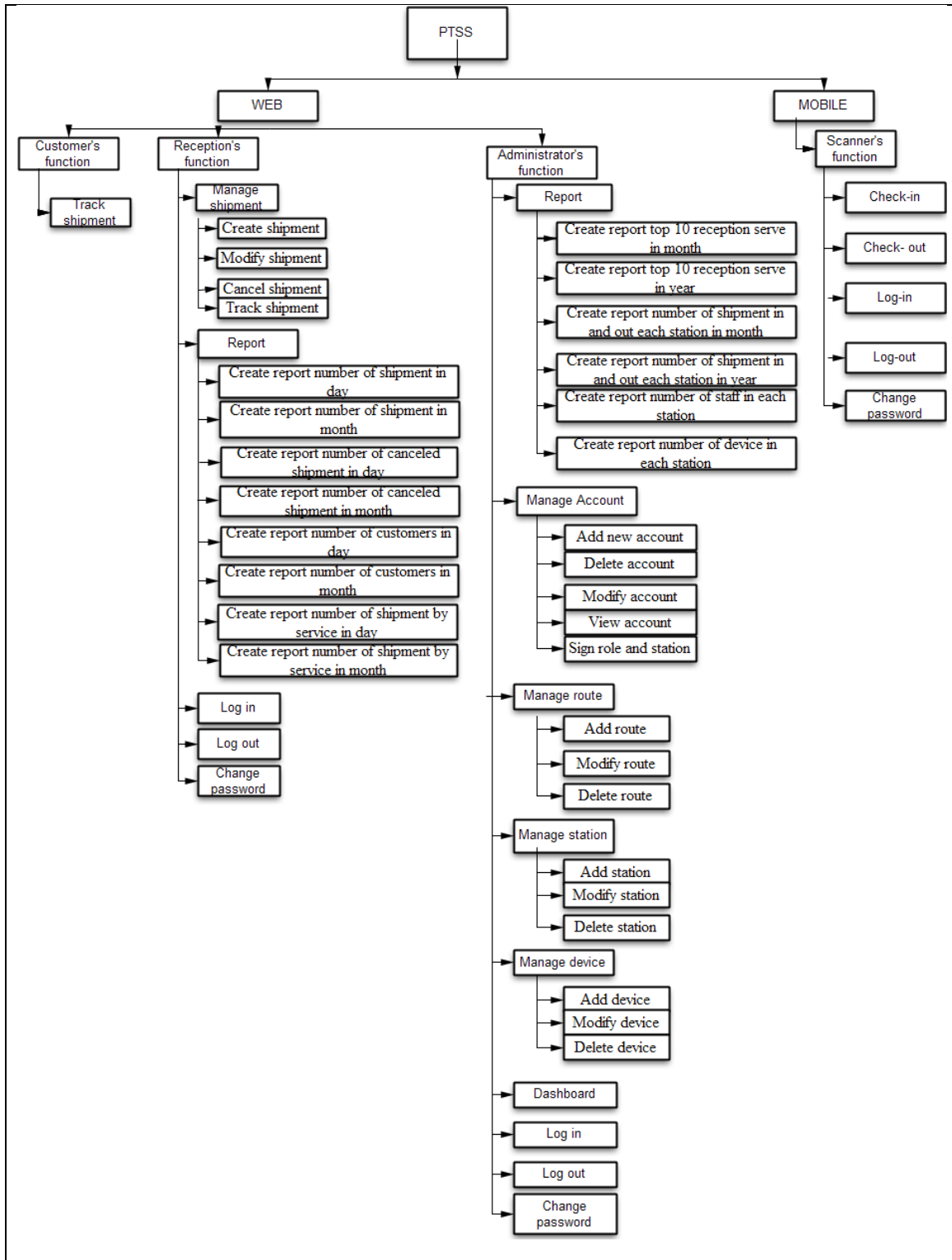
We suggest using Chrome 13, other browser such as Firefox, Internet Explorer are compatible.

c. Mobile component: The software for scanner actor is operated on Android 1.6 or higher.

We decide to use 2 smartphones:

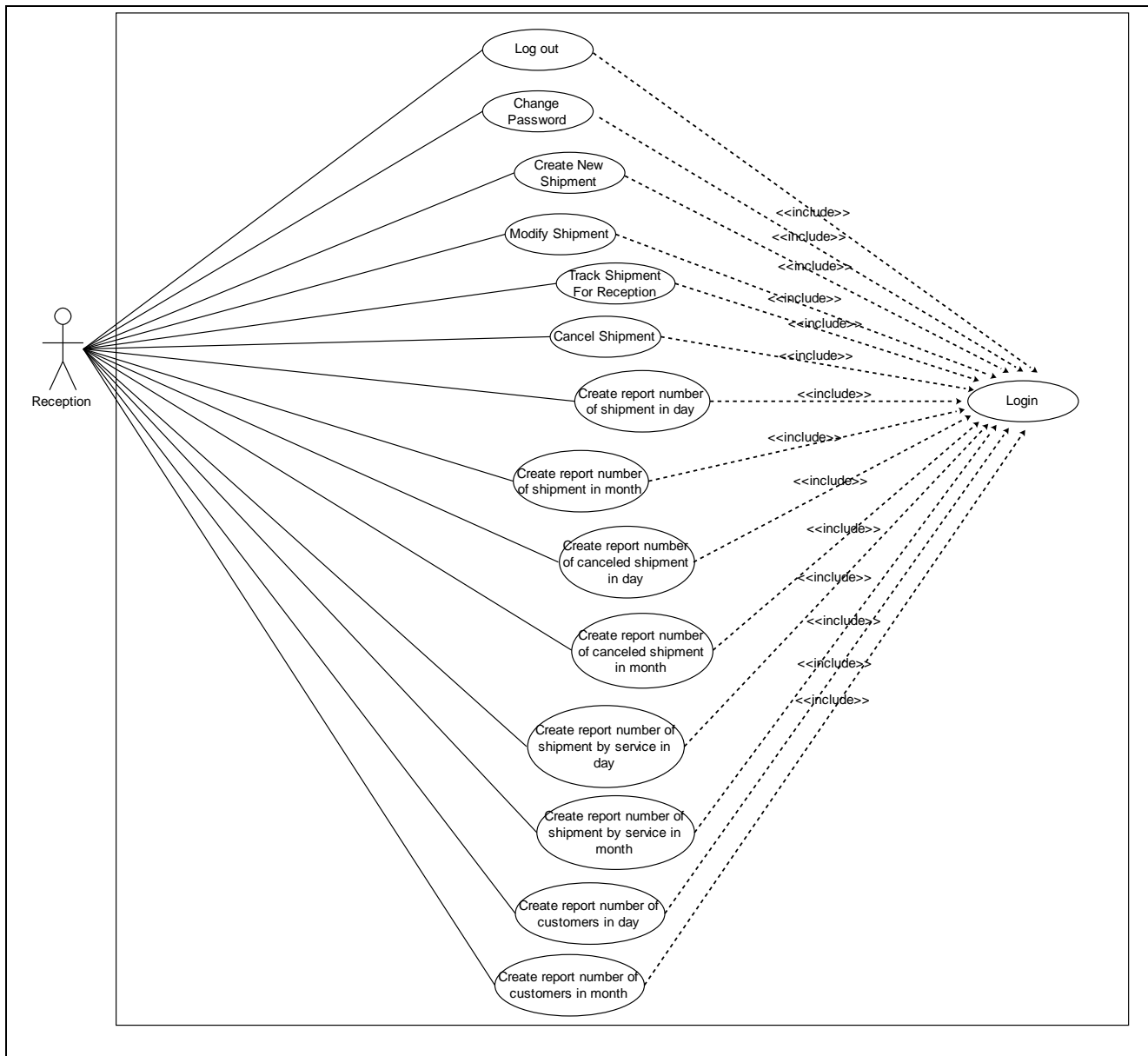
Welcome A88 with Android 2.2.1
Motorola Milestone A853

3. Work breakdown structure

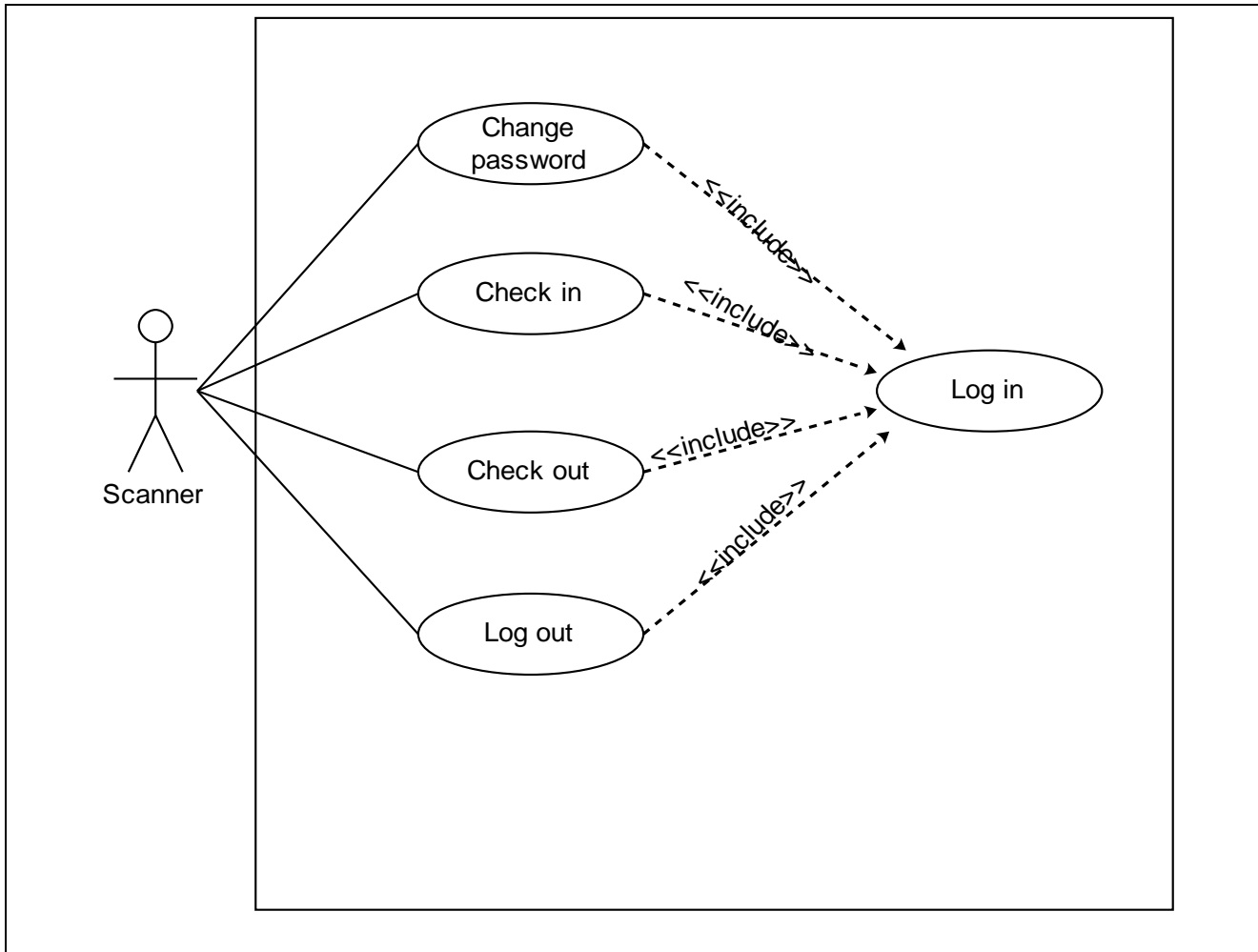


4. Use case diagram:

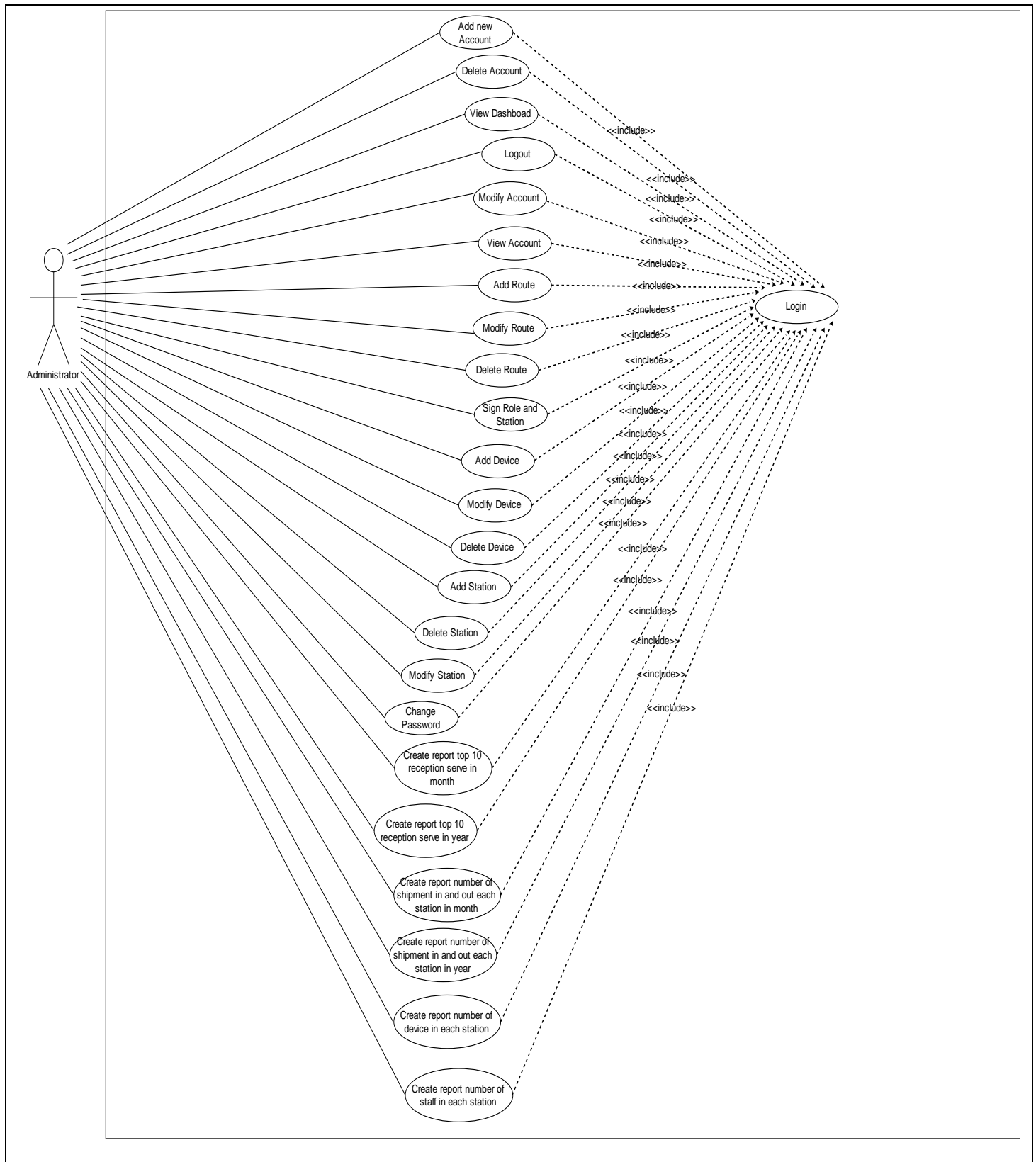
4.1 Use case diagram for Reception:



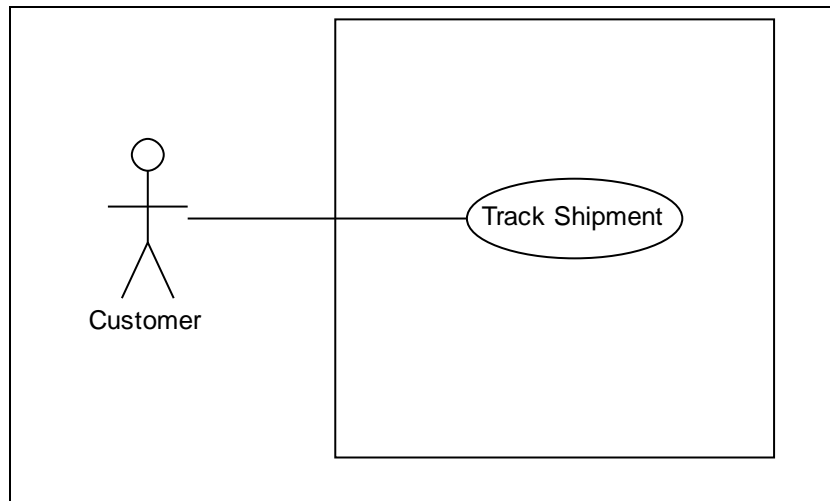
4.2 Use case diagram for Scanner:



4.3 Use case diagram for Administrator:



4.4 Use case diagram for customer:



5. Specific Requirements: Functional Requirements (Use Cases)

5.1 Login

Table 6: Use case Login

<i>ID</i>	UC1	<i>Use-case name</i>	Login
<i>Author</i>	Han Truong Ngoc	<i>Updater</i>	Huong Vo Mai
<i>Create day</i>	8/16/2011	<i>Update day</i>	
Describe	User enter username and password to login		
Actor	Reception, Scanner, Administrator		
Assumption			

Scenario	<ul style="list-style-type: none"> - Step 1: User enters username into “Username” textbox and password into “Password” textbox. - Step 2: User press Enter or click “Submit” button to login. - Step 3: System confirm username and password, if be accessed, go to Step 4, else go to Step 5 - Step 4: Interface application is called - Step 5: Display warning “Username or password is incorrect, Enter again your username or password, please.” Click Ok button to return Step 1.
The Customization	
Non-functional requirement	Performance, Security
Note	

5.2 Logout

Table 7: Use case Logout

<i>ID</i>	UC2	<i>Use-case name</i>	Logout
<i>Author</i>	Han Truong Ngoc	<i>Updater</i>	Huong Vo Mai
<i>Create day</i>	8/16/2011	<i>Update day</i>	
Describe	Login function help user to go out of system.		
Actor	Reception, Scanner, Administrator		
Assumption			
Scenario	<ul style="list-style-type: none"> - Step 1: User click Logout button. - Step 2: System display warning “Are you sure that you want to go out system?” If click Yes, go to Step 3, else go to Step 4 - Step 3: Go out of system. - Step 4: Back again previous form. 		

The Customization	
Non-functional Requirement	Performance
Note	

5.3 Change Password

Table 8: Use case Change Password

<i>ID</i>	UC3	<i>Use-case name</i>	Change password
<i>Author</i>	Han Truong Ngoc	<i>Updater</i>	Huong Vo Mai
<i>Create day</i>	8/16/2011	<i>Update day</i>	
Describe	This function will help user to change their user password if they want to.		
Actor	Reception, Scanner, Administrator		
Assumption			
Scenario	<ul style="list-style-type: none"> - Step 1: After Login, user click Change password button. - Step 2: System will call Change password form. - Step 3: User enters old password and new password. - Step 4: User presses Enter or click Submit button. - Step 5: System checks the old password and validate the new password. If they are passed, go to Step 6, else go to Step 7. - Step 6: System save password which is changed. - Step 7: System will warning: “Old password is not matched” if old password is not true, and warning “New password is invalid” 		
The Customization			
Non-functional Requirement	Performance, Security		
Note			

5.4 Create new shipment

Table 9: Use case Create new shipment

<i>ID</i>	UC4	<i>Use-case name</i>	Create new shipment
<i>Author</i>	Han Truong Ngoc	<i>Updater</i>	Huong Vo Mai
<i>Create day</i>	8/16/2011	<i>Update day</i>	
Describe	User can fill information of customer in shipment form, then print and save it.		
Actor	Reception		
Assumption			
Scenario	<ul style="list-style-type: none"> - Step 1: After login succeeds, User chooses Create new Shipment function. - Step 2: User input Shipper information into “From – Shipper Information” Form. Click “Next” to Step 3 or “Reset” to clear all textbox - Step 3: User input Receiver information into “To – Receiver information” Form. Click “Next” to Step 4 or “Reset” to clear all textbox - Step 4: User input Shipment Detail into “Shipment Detail” Form. Click “Next” to Step 5 or “Reset” to clear all textbox. - Step 5: System will show the fully information of shipment. User click “Save” to save the shipment and print this shipment. 		
The Customization			
Non-functional requirement	Performance		
Note			

5.5 Modify shipment

Table 10: Use case Modify shipment

<i>ID</i>	UC5	<i>Use-case name</i>	Modify shipment
<i>Author</i>	Han Truong Ngoc	<i>Updater</i>	Huong Vo Mai
<i>Create day</i>	8/16/2011	<i>Update day</i>	
Describe	User can modify information of customer in shipment		
Actor	Reception		
Assumption			
Scenario	<ul style="list-style-type: none"> - Step 1: After login succeeds, User chooses Modify Shipment function. - Step 2: User search the shipment to modify by input shipment id into search form. - Step 3: System will show the shipment information and “Modify” button to go to Step 4 if the shipment was found, otherwise, system show an alert “Cannot found shipment” - Step 4: System will show the form to modify shipment information with “Save” and “Cancel” button. - Step 5: User change any information in textbox and click “Save” to save, click “Cancel” to discard. 		
The Customization			
Non-functional requirement	Performance		
Note			

5.6 Track shipment for reception

Table 11: Use case Track shipment for reception

<i>ID</i>	UC6	<i>Use-case name</i>	Track shipment for Reception
<i>Author</i>	Han Truong Ngoc	<i>Updater</i>	Huong Vo Mai
<i>Create day</i>	8/16/2011	<i>Update day</i>	
Describe	User can view information and itinerary of customer		
Actor	Reception		
Assumption			
Scenario	<ul style="list-style-type: none"> - Step 1: After login succeeds, User chooses Track Shipment function. - Step 2: user input shipment Id into search form and click “Submit” - Step 3: system will show the tracking of shipment in detail. 		
The Customization			
Non-functional requirement	Performance		
Note			

5.7 Cancel shipment

Table 12: Use case Cancel shipment

<i>ID</i>	UC7	<i>Use-case name</i>	Cancel shipment
<i>Author</i>	Han Truong Ngoc	<i>Updater</i>	Huong Vo Mai
<i>Create day</i>	8/16/2011	<i>Update day</i>	
Describe	User can modify information of customer in shipment		
Actor	Reception		
Assumption			
Scenario	<ul style="list-style-type: none"> - Step 1: After login succeeds, User chooses Cancel Shipment function. - Step 2: System display list Shipment in day, User can select Shipment which wants to cancel. - Step 3: User click “cancel” to cancel this Shipment - Step 4: System display warning “Are you sure that you want to Shipments”. If click Yes, go to Step 5, else go to Step 6 - Step 5: Shipments which are selected are canceled. - Step 6: Call again list Shipment. 		
The Customization			
Non-functional requirement	Performance		
Note			

5.8 Track shipment for Customer

Table 13: Use case Track shipment for customer

<i>ID</i>	UC8	<i>Use-case name</i>	Track shipment for Customer
<i>Author</i>	Han Truong Ngoc	<i>Updater</i>	Huong Vo Mai
<i>Create day</i>	8/16/2011	<i>Update day</i>	
Describe	User use this function to track their parcel		
Actor	Customer		
Assumption			
Scenario	<ul style="list-style-type: none"> - Step 1: By link of system, use go to system - Step 2: Main interface is called - Step 3: User enter Code of parcel which is supported in their shipment into search form - Step 4: User press Enter or click “Submit” button - Step 5: System will display their itinerary parcel. 		
The Customization			
Non-function requirement	Performance		
Note			

5.9 Add new account

Table 14: Use case Add new account

ID	UC9	<i>Use-case Name</i>	Add new account
<i>Author</i>	Huong Vo Mai	<i>Updater</i>	Han Truong Ngoc
<i>Create day</i>	8/16/2011	<i>Update day</i>	
Description	Administrator can add new an account.		
Actor	Administrator		
Assumption			
Scenario	<ul style="list-style-type: none"> - Step 1: After login succeeds, User chooses Manage Account function. - Step 2: In Manage account user interface, user clicks on “Add new account” - Step 3: “Add new account” form is showed and user can input new information for new account - Step 4: Click “Submit” button for save new account, or click “Reset” to clear all form. 		
The customization			
Non-functional requirement			
Note			

5.10 Delete account

Table 15: Use case Delete account

<i>ID</i>	UC10	<i>Use-case Name</i>	Delete Account
<i>Author</i>	Huong Vo Mai	<i>Updater</i>	Han Truong Ngoc
<i>Create day</i>	8/16/2011	<i>Update day</i>	
Description	Administrator can delete account of receptions or scanners.		
Actor	Administrator		
Assumption			
Scenario	<ul style="list-style-type: none"> - Step 1: In Manage Account user interface, user click on any account in account list to view account detail - Step 2: In account detail form, there is a “Delete” button. Click “Delete” button to delete this account - Step 3: System will show warning “Do you sure to delete this account ?”, click “Yes” to Step 4, “No” to Step 5 - Step 4: System will alert “ The account has been deleted” - Step 5: Back to account detail user interface 		
The customized			
Non-functional requirement	Performance		
Note			

5.11 Modify account

Table 16: Use case Modify account

<i>ID</i>	UC11	<i>Use- case Name</i>	Modify Account
<i>Author</i>	Huong Vo Mai	<i>Updater</i>	Han Truong Ngoc
<i>Create day</i>	8/16/2011	<i>Update day</i>	
Description	Administrator can modify account of receptions or scanners. Its information will be change.		
Actor	Administrator		
Assumption			
Scenario	<ul style="list-style-type: none"> - Step 1: In Manage Account user interface, user click on any account in account list to view account detail - Step 2: In account detail form, there is a “Modify” button. Click “Modify” button to modify this account - Step 3: System will show form for modify account information in textboxes with “Save’ and “Cancel” button. With this form, user can modify account information. - Step 4. Click “Save” to save and back to account detail form or click “Cancel” to back to account detail form. 		
The customized			
Non-functional requirement	Performance		
Note			

5.12 View account

Table 17: Use case View account

<i>ID</i>	UC12	<i>Use-case name</i>	View account
<i>Author</i>	Han Truong Ngoc	<i>Updater</i>	Huong Vo Mai
<i>Create day</i>	8/16/2011	<i>Update day</i>	
Describe	User use this function to view account in list and can be search		
Actor	Administrator		
Assumption			
Scenario	<ul style="list-style-type: none"> - Step 1: User click Manage account button at the left side. - Step 2: System displays list of accounts in many pages - Step 3: User can selects any account to view detail. 		
The Customization			
Non-functional Requirement	Performance		
Note			

5.13 View dashboard

Table 18: Use case View dashboard

<i>ID</i>	UC13	<i>Use-case Name</i>	View dashboard
<i>Author</i>	Huong Vo Mai	<i>Updater</i>	Han Truong Ngoc
<i>Create day</i>	8/16/2011	<i>Update day</i>	
Description	Administrator can view the information in the dashboard.		
Actor	Administrator		
Assumption			
Scenario	<ul style="list-style-type: none"> - Step 1: After login into system successfully, user click on “Dashboard” button on the left side - Step 2: In dashboard form view, there are - Step 3: User can click “Print” button to print this dashboard as a report. 		
The customization	User is the administrator		
Non-functional requirement	Performance		
Note			

5.14 Add station

Table 19: Use case Add station

ID	UC14	<i>Use-case Name</i>	Add station
<i>Author</i>	Huong Vo Mai	<i>Updater</i>	Han Truong Ngoc
<i>Create day</i>	8/16/2011	<i>Update day</i>	
Description	Administrator can add new station.		
Actor	Administrator		
Assumption			
Scenario	<ul style="list-style-type: none"> - Step 1: User click “Manage station” button at the left side. - Step 2: In station form view, click on “Add station” button - Step 3: System will show “Add station” form, and user can input station name, road, district, city, office phone into textboxes. - Step 4: click “Submit” for add new station or “Reset” to clear all textboxes or “Cancel” to cancel the adding. 		
The customization	User is the administrator		
Non-functional requirement	Performance		
Note			

5.15 Modify station

Table 20: Use case Modify station

ID	UC15	<i>Use-case Name</i>	Modify station
<i>Author</i>	Huong Vo Mai	<i>Updater</i>	Han Truong Ngoc
<i>Create day</i>	8/16/2011	<i>Update day</i>	
Description	Administrator can modify station.		
Actor	Administrator		
Assumption			
Scenario	<ul style="list-style-type: none"> - Step 1: User click “Manage station” button at the left side. - Step 2: In station form view, click on any station in station list - Step 3: System will show “Station detail” form, and user click on “Modify” button. - Step 4: System will show “Modify station” form for modify. User click “Save” for save station or “Cancel” to cancel the modifying. 		
The customization	User is the administrator		
Non-functional requirement	Performance		
Note			

5.16 Delete station

Table 21: Use case Delete station

<i>ID</i>	UC16	<i>Use-case Name</i>	Delete station
<i>Author</i>	Huong Vo Mai	<i>Updater</i>	Han Truong Ngoc
<i>Create day</i>	8/16/2011	<i>Update day</i>	
Description	Administrator can delete station.		
Actor	Administrator		
Assumption			
Scenario	<ul style="list-style-type: none"> - Step 1: User click “Manage station” button at the left side. - Step 2: In station form view, click on any station in station list - Step 3: System will show “Station detail” form, and user click on “Delete” button. - Step 4: System will alert “Are you sure to delete this station?”. User click “Yes” delete and go to Step 5 or “Cancel” to cancel the deleting and back to Station detail form. - Step 5: System alert “Delete successfully!” and click “Ok” button to come back station form view. 		
The customization			
Non-functional requirement	Performance		
Note			

5.17 Add route

Table 22: Use case Add route

<i>ID</i>	UC17	<i>Use-case Name</i>	Add route
<i>Author</i>	Huong Vo Mai	<i>Updater</i>	Han Truong Ngoc
<i>Create day</i>	8/16/2011	<i>Update day</i>	
Description	Administrator can add new route.		
Actor	Administrator		
Assumption			
Scenario	<ul style="list-style-type: none"> - Step 1: User click “Manage route” button at the left side. - Step 2: In station form view, click on “Add route” button - Step 3: System will show “Add route” form, and user can input route name, select stations. - Step 4: click “Submit” for add new route or “Reset” to clear all textboxes or “Cancel” to cancel the adding. 		
The customization			
Non-functional requirement	Performance		
Note			

5.18 Modify route

Table 23: Use case Modify route

<i>ID</i>	UC18	<i>Use-case Name</i>	Modify route
<i>Author</i>	Huong Vo Mai	<i>Updater</i>	Han Truong Ngoc
<i>Create day</i>	8/16/2011	<i>Update day</i>	
Description	Administrator can modify route.		
Actor	Administrator		
Assumption			
Scenario	<ul style="list-style-type: none"> - Step 1: User click “Manage route” button at the left side. - Step 2: In route form view, click on any route in route list - Step 3: System will show “Route detail” form, and user click on “Modify” button. - Step 4: System will show “Modify route” form for modify. User click “Save” for save station or “Cancel” to cancel the modifying. 		
The customization			
Non-functional requirement	Performance		
Note			

5.19 Delete route

Table 24: Use case Delete route

<i>ID</i>	UC19	<i>Use-case Name</i>	Delete route
<i>Author</i>	Huong Vo Mai	<i>Updater</i>	Han Truong Ngoc
<i>Create day</i>	8/16/2011	<i>Update day</i>	
Description	Administrator can delete route.		
Actor	Administrator		
Assumption			
Scenario	<ul style="list-style-type: none"> - Step 1: User click “Manage route” button at the left side. - Step 2: In route form view, click on any route in route list - Step 3: System will show “Route detail” form, and user click on “Delete” button. - Step 4: System will alert “Are you sure to delete this route?”. User click “Yes” delete and go to Step 5 or “Cancel” to cancel the deleting and back to Route detail form. - Step 5: System alert “Delete successfully!” and click “Ok” button to come back route form view. 		
The customization			
Non-functional requirement	Performance		
Note			

5.20 Add device

Table 25: Use case Add device

<i>ID</i>	UC20	<i>Use-case Name</i>	Add device
<i>Author</i>	Huong Vo Mai	<i>Updater</i>	Han Truong Ngoc
<i>Create day</i>	8/16/2011	<i>Update day</i>	
Description	Administrator can add new device.		
Actor	Administrator		
Assumption			
Scenario	<ul style="list-style-type: none"> - Step 1: User click “Manage device” button at the left side. - Step 2: In station form view, click on “Add device” button - Step 3: System will show “Add device” form, and user can input device name, IMEI number, IMSE number. - Step 4: click “Submit” for add new device or “Reset” to clear all textboxes or “Cancel” to cancel the adding. 		
The customization			
Non-functional requirement	Performance		
Note			

5.21 Modify device

Table 26: Use case Modify device

ID	UC21	<i>Use-case Name</i>	Modify device
<i>Author</i>	Huong Vo Mai	<i>Updater</i>	Han Truong Ngoc
<i>Create day</i>	8/16/2011	<i>Update day</i>	
Description	Administrator can modify device.		
Actor	Administrator		
Assumption			
Scenario	<ul style="list-style-type: none"> - Step 1: User click “Manage device” button at the left side. - Step 2: In device form view, click on any device in device list - Step 3: System will show “Device detail” form and user click on “Modify” button. - Step 4: System will show “Modify device” form for modify. User click “Save” for save device or “Cancel” to cancel the modifying. 		
The customization			
Non-functional requirement	Performance		
Note			

5.22 Delete device

Table 27: Use case Delete device

<i>ID</i>	UC22	<i>Use-case Name</i>	Delete device
<i>Author</i>	Huong Vo Mai	<i>Updater</i>	Han Truong Ngoc
<i>Create day</i>	8/16/2011	<i>Update day</i>	
Description	Administrator can delete device.		
Actor	Administrator		
Assumption			
Scenario	<ul style="list-style-type: none"> - Step 1: User click “Manage device” button at the left side. - Step 2: In device form view, click on any device in device list - Step 3: System will show “Device detail” form, and user click on “Delete” button. - Step 4: System will alert “Are you sure to delete this device?”. User click “Yes” delete and go to Step 5 or “Cancel” to cancel the deleting and back to Device detail form. - Step 5: System alert “Delete successfully!” and click “Ok” button to come back device form view. 		
The customization			
Non-functional requirement	Performance		
Note			

5.23 Sign role and station

Table 28: Use case Sign role and station

ID	UC23	<i>Use-case Name</i>	Sign role and station
<i>Author</i>	Huong Vo Mai	<i>Updater</i>	Han Truong Ngoc
<i>Create day</i>	8/16/2011	<i>Update day</i>	
Description	Administrator can Sign role and station for each account.		
Actor	Administrator		
Assumption			
Scenario	<ul style="list-style-type: none"> - Step 1: User click “Manage account” button at the left side. - Step 2: In account form view, click on any account in account list - Step 3: System will show “Account detail” form, and user click on “Modify” button. - Step 4: System will show “Modify account” form. User can uses combo boxes to select the role and station for this account. - Step 5: Click “Save” button. 		
The customization			
Non-functional requirement	Performance		
Note			

5.24 Check in

Table 29: Use case Check in

<i>ID</i>	UC24	<i>Use -case Name</i>	Check in
<i>Author</i>	Huong Vo Mai	<i>Updater</i>	Han Truong Ngoc
<i>Create day</i>	8/16/2011	<i>Update day</i>	
Description	After log in system, the scanner can use check in function to scan the bar and check information of parcels when they come to station		
Actor	Scanner		
Assumption			
Scenario	<ul style="list-style-type: none"> - Step 1: Scanner chooses check in button. - Step 2: Scanner scans the Bar-code or QR-code on the parcel. - Step 3: Press “Submit” to submit the scanned list to system 		
The customization			
Non-functional requirement	Mobility, performance		
Note			

5.25 Check out

Table 30: Use case Check out

<i>ID</i>	UC25	<i>Use-case Name</i>	Check out
<i>Author</i>	Huong Mai Vo	<i>Updater</i>	Han Truong Ngoc
<i>Create day</i>	8/16/2011	<i>Update day</i>	
Description	After log in system, the scanner can use check out function to scan the bar and check information of parcels when they come out the station.		
Actor	Scanner		
Assumption			
Scenario	<ul style="list-style-type: none"> - Step 1: Scanner chooses check out button. - Step 2: Scanner scans the Bar-code or QR-code on the parcel. - Step 3: Press “Submit” to submit the scanned list to system 		
The customization			
Non-functional requirement	Mobility, performance		
Note			

5.26 Create report top 10 reception serve in month

Table 31: Use case Create report top 10 reception serve in month

ID	UC26	<i>Use-case Name</i>	Create report top 10 reception serve in month
<i>Author</i>	Huong Mai Vo	<i>Updater</i>	Han Truong Ngoc
<i>Create day</i>	8/16/2011	<i>Update day</i>	
Description	With this function, administrator can report top 10 reception serve in month		
Actor	Administrator		
Assumption			
Scenario	<p>Step 1: Click Report button</p> <p>Step 2: System display “Report top 10 reception serve in month” label and the textbox to input month and year (Default is current month)</p> <p>Step 3: User input date into textbox or leave it default</p> <p>Step 4: Click on “Report top 10 reception serve in month” label</p> <p>Step 5: System will show the report with “Print” button</p>		
The customization			
Non-functional requirement	Performance		
Note			

5.27 Create report top 10 reception serve in year

Table 32: Use case Create report top 10 reception serve in year

ID	UC27	<i>Use-case Name</i>	Create report top 10 reception serve in year
<i>Author</i>	Huong Mai Vo	<i>Updater</i>	Han Truong Ngoc
<i>Create day</i>	8/16/2011	<i>Update day</i>	
Description	With this function, administrator can report top 10 reception serve in year		
Actor	Administrator		
Assumption			
Scenario	<ul style="list-style-type: none"> - Step 1: Click Report button - Step 2: System display “Report top 10 reception serve in year” label and the textbox to input year (Default is current year) - Step 3: User input year into textbox or leave it default - Step 4: Click on “Report top 10 reception serve in year” label - Step 5: System will show the report with “Print” button 		
The customization			
Non-functional requirement	Performance		
Note			

5.28 Create report number of shipment in and out each station in month

Table 33: Use case Create report top 10 reception serve in year

<i>ID</i>	UC28	<i>Use-case Name</i>	Create report number of shipment in and out each station in month
<i>Author</i>	Huong Mai Vo	<i>Updater</i>	Han Truong Ngoc
<i>Create day</i>	8/16/2011	<i>Update day</i>	
Description	With this function, administrator can report number of shipment in and out each station in month		
Actor	Administrator		
Assumption			
Scenario	<ul style="list-style-type: none"> - Step 1: Click Report button - Step 2: System display “Report number of shipment in and out each station in month” label and the textbox to input date (Default is current date) - Step 3: User input date into textbox or leave it default - Step 4: Click on “Report number of shipment in and out each station in month” label - Step 5: System will show the report with “Print” button 		
The customization			
Non-functional requirement	Performance		
Note			

5.29 Create report number of shipment in and out each station in month

Table 34: Use case Create report top 10 reception serve in year

<i>ID</i>	UC29	<i>Use-case Name</i>	Create report number of shipment in and out each station in year
<i>Author</i>	Huong Mai Vo	<i>Updater</i>	Han Truong Ngoc
<i>Create day</i>	8/16/2011	<i>Update day</i>	
Description	With this function, administrator can report number of shipment in and out each station in year		
Actor	Administrator		
Assumption			
Scenario	<ul style="list-style-type: none"> - Step 1: Click Report button - Step 2: System display “Report number of shipment in and out each station in year” label and the textbox to input year (Default is current year) - Step 3: User input year into textbox or leave it default - Step 4: Click on “Report number of shipment in and out each station in year” label - Step 5: System will show the report with “Print” button 		
The customization			
Non-functional requirement	Performance		
Note			

5.30 Create report number of staff in each station

Table 35: Use case Create report number of staff in each station

<i>ID</i>	UC30	<i>Use-case Name</i>	Create report number of staff in each station
<i>Author</i>	Huong Mai Vo	<i>Updater</i>	Han Truong Ngoc
<i>Create day</i>	8/16/2011	<i>Update day</i>	
Description	With this function, administrator can report number of staff in each station		
Actor	Administrator		
Assumption			
Scenario	<ul style="list-style-type: none"> - Step 1: Click Report button - Step 2: System display “Report number of staff in each station” label - Step 3: Click on “Report number of staff in each station” label - Step 5: System will show the report with “Print” button 		
The customization			
Non-functional requirement	Performance		
Note			

5.31 Create report number of device in each station

Table 36: Use case Create report number of device in each station

<i>ID</i>	UC31	<i>Use-case Name</i>	Create report number of device in each station
<i>Author</i>	Huong Mai Vo	<i>Updater</i>	Han Truong Ngoc
<i>Create day</i>	8/16/2011	<i>Update day</i>	
Description	With this function, administrator can report number of device in each station		
Actor	Administrator		
Assumption			
Scenario	<ul style="list-style-type: none"> - Step 1: Click Report button - Step 2: System display “Report number of device in each station” label - Step 3: Click on “Report number of device in each station” label - Step 5: System will show the report with “Print” button 		
The customization			
Non-functional requirement	Performance		
Note			

5.32 Create report number of shipment in day

Table 37: Use case Create report number of shipment in day

<i>ID</i>	UC32	<i>Use-case Name</i>	Create report number of shipment in day
<i>Author</i>	Huong Mai Vo	<i>Updater</i>	Han Truong Ngoc
<i>Create day</i>	8/16/2011	<i>Update day</i>	
Description	With this function, reception can report number of shipment in day		
Actor	Reception		
Assumption			
Scenario	<ul style="list-style-type: none"> - Step 1: Click Report button - Step 2: System display “Report number of shipment in day” label and the textbox to input date (Default is current date) - Step 3: User input date into textbox or leave it default - Step 4: Click on “Report number of shipment in day” label - Step 5: System will show the report with “Print” button 		
The customization			
Non-functional requirement	Performance		
Note			

5.33 Create report number of shipment in month

Table 38: Use case Create report number of shipment in month

<i>ID</i>	UC33	<i>Use-case Name</i>	Create report number of shipment in month
<i>Author</i>	Huong Mai Vo	<i>Updater</i>	Han Truong Ngoc
<i>Create day</i>	8/16/2011	<i>Update day</i>	
Description	With this function, reception can report number of shipment in month		
Actor	Reception		
Assumption			
Scenario	<ul style="list-style-type: none"> - Step 1: Click Report button - Step 2: System display “Report number of shipment in month” label and the textbox to input date (Default is current date) - Step 3: User input date into textbox or leave it default - Step 4: Click on “Report number of shipment in month” label - Step 5: System will show the report with “Print” button 		
The customization			
Non-functional requirement	Performance		
Note			

5.34 Create report number of canceled shipment in day

Table 39: Use case Create report number of canceled shipment in day

<i>ID</i>	UC34	<i>Use-case Name</i>	Create report number of canceled shipment in day
<i>Author</i>	Huong Mai Vo	<i>Updater</i>	Han Truong Ngoc
<i>Create day</i>	8/16/2011	<i>Update day</i>	
Description	With this function, reception can report number of canceled shipment in day		
Actor	Reception		
Assumption			
Scenario	<ul style="list-style-type: none"> - Step 1: Click Report button - Step 2: System display “Report number of canceled shipment in day” label and the textbox to input date (Default is current date) - Step 3: User input date into textbox or leave it default - Step 4: Click on “Report number of canceled shipment in day” label - Step 5: System will show the report with “Print” button 		
The customization			
Non-functional requirement	Performance		
Note			

5.35 Create report number of canceled shipment in month

Table 40: Use case Create report number of canceled shipment in month

<i>ID</i>	UC35	<i>Use-case Name</i>	Create report number of canceled shipment in month
<i>Author</i>	Huong Mai Vo	<i>Updater</i>	Han Truong Ngoc
<i>Create day</i>	8/16/2011	<i>Update day</i>	
Description	With this function, reception can report number of canceled shipment in month		
Actor	Reception		
Assumption			
Scenario	<ul style="list-style-type: none"> - Step 1: Click Report button - Step 2: System display “Report number of canceled shipment in month” label and the textbox to input date (Default is current date) - Step 3: User input date into textbox or leave it default - Step 4: Click on “Report number of canceled shipment in month” label - Step 5: System will show the report with “Print” button 		
The customization			
Non-functional requirement	Performance		
Note			

5.36 Create report number of customers in day

Table 41: Use case Create report number of customers in day

<i>ID</i>	UC36	<i>Use-case Name</i>	Create report number of customers in day
<i>Author</i>	Huong Mai Vo	<i>Updater</i>	Han Truong Ngoc
<i>Create day</i>	8/16/2011	<i>Update day</i>	
Description	With this function, reception can report number of customers in day		
Actor	Reception		
Assumption			
Scenario	<ul style="list-style-type: none"> - Step 1: Click Report button - Step 2: System display “Report number of customers in day” label and the textbox to input date (Default is current date) - Step 3: User input date into textbox or leave it default - Step 4: Click on “Report number of customers in day” label - Step 5: System will show the report with “Print” button 		
The customization			
Non-functional requirement	Performance		
Note			

5.37 Create report number of customers in month

Table 42: Use case Create report number of customers in month

<i>ID</i>	UC37	<i>Use-case Name</i>	Create report number of customers in month
<i>Author</i>	Huong Mai Vo	<i>Updater</i>	Han Truong Ngoc
<i>Create day</i>	8/16/2011	<i>Update day</i>	
Description	With this function, reception can report number of customers in month		
Actor	Reception		
Assumption			
Scenario	<ul style="list-style-type: none"> - Step 1: Click Report button - Step 2: System display “Report number of customers in month” label and the textbox to input date (Default is current date) - Step 3: User input date into textbox or leave it default - Step 4: Click on “Report number of customers in month” label - Step 5: System will show the report with “Print” button 		
The customization			
Non-functional requirement	Performance		
Note			

5.38 Create report number of shipment by service in day

Table 43: Use case Create report number of shipment by service in day

<i>ID</i>	UC38	<i>Use-case Name</i>	Create report number of shipment by service in day
<i>Author</i>	Huong Mai Vo	<i>Updater</i>	Han Truong Ngoc
<i>Create day</i>	8/16/2011	<i>Update day</i>	
Description	With this function, reception can report number of shipment by service in day		
Actor	Reception		
Assumption			
Scenario	<ul style="list-style-type: none"> - Step 1: Click Report button - Step 2: System display “Report number of shipment by service in day” label and the textbox to input date (Default is current date) - Step 3: User input date into textbox or leave it default - Step 4: Click on “Report number of shipment by service in day” label - Step 5: System will show the report with “Print” button 		
The customization			
Non-functional requirement	Performance		
Note			

5.39 Create report number of shipment by service in month

Table 44: Use case Create report number of shipment by service in month

<i>ID</i>	UC39	<i>Use-case Name</i>	Create report number of shipment by service in month
<i>Author</i>	Huong Mai Vo	<i>Updater</i>	Han Truong Ngoc
<i>Create day</i>	8/16/2011	<i>Update day</i>	
Description	With this function, reception can report number of shipment by service in month		
Actor	Reception		
Assumption			
Scenario	<ul style="list-style-type: none"> - Step 1: Click Report button - Step 2: System display “Report number of shipment by service in month” label and the textbox to input date (Default is current date) - Step 3: User input date into textbox or leave it default - Step 4: Click on “Report number of shipment by service in month” label - Step 5: System will show the report with “Print” button 		
The customization			
Non-functional requirement	Performance		
Note			

6. Nonfunctional Requirements

6.1 Performance Requirements

Performance requirements are necessary for system design and development.

Response times (in case of interactive work) or processing times (in case of batch jobs or scheduled activities) define how fast requests would be processed. Acceptable response times should be defined in each particular case. A time of 30 minutes can be excellent for a big batch job, but absolutely unacceptable for getting a web page in a customer portal. Although it is often difficult to draw the line here, this is rather a common sense decision.

We've decided response times: 5 seconds

6.2 Usability Requirements

Understandability

- Interface elements (e.g. menus) should be easy to understand
- For a walk up and purchase or use system, the purpose of the system should be easily understandable

Learnability

- The user documentation and help should be complete
- The help should be context sensitive and explain how to achieve common tasks
- The system should be easy to learn

Operability

- The interface actions and elements should be consistent
- Error messages should explain how to recover from the error
- Undo should be available for most actions
- Actions which cannot be undone should ask for confirmation
- The system be customizable to meet specific user needs

6.3 Security Requirements

With the web application, users need to use their information such as username, password to login to the system. This information must be kept in save.

Appendix A: Glossary

Table 45: Definitions

Table 46: Acronyms

SRD	Software Requirements Document
SRS	Software Requirements Specifications
HTML	Hypertext Markup Language
GUI	Graphical User Interface
DB	Database
ID	Identification
K14 team 1	Linh Do Bao, Huong Vo Mai, Han Truong Ngoc, Hanh Tran Duc

Table 47: Abbreviations

s/he	he/she

APPROVAL

<i>Prepared by</i>	<i>Signature</i>	<i>Date</i>
K14 TEAM1	_____	<u>08/13/ 2011</u>
<i>Approved by</i>	<i>Signature</i>	<i>Date</i>
Luong Vo Van Msc, Mentor Duy Tan University	_____	<u>08 / 13/ 2011</u>
Hung Pham Van Vice director of DHL Duy Tan University	_____	<u>08 / 13/ 2011</u>