

UNIVERSIDAD SAN CARLOS DE GUATEMALA

CENTRO UNIVERSITARIO DE OCCIDENTE

DIVISIÓN CIENCIAS DE LA INGENIERÍA

INGENIERÍA CIENCIAS Y SISTEMAS



LABORATORIO ANÁLISIS Y DISEÑO DE SISTEMAS 2

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TEMA: “Análisis del dominio e Historias de Usuario, Sistema de Paquetería - InterPackage Guatemala”

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Sistema de Paquetería - InterPackage Guatemala

Descripción General:

La empresa de desarrollo de software “Code ‘n Bugs” se especializa en desarrollos de software a la medida. Uno de sus clientes actuales es una empresa de envío de paquetes a ciudades de diferentes países por lo que se definen diferentes rutas por las cuales deben pasar los paquetes y cada ruta tiene ciertos puntos de control para que el cliente pueda consultar la locación de su paquete.

Debido a que actualmente no se tiene un sistema que permita llevar el registro de esos paquetes, no es posible detectar, entre otras cosas, la cantidad de tiempo y dinero que la empresa gasta en el manejo de los paquetes por lo que el cálculo de la ganancia es impreciso.

Hay que tomar en cuenta que cada punto de control tiene un espacio limitado para almacenar paquetes por lo que se controla por medio de una cola el ingreso de los paquetes a cada punto de control.

Análisis de dominio

Ambiente operacional:

- Servidor Backend y Frontend - Ejecución en la nube.
- Servidor de Base de Datos Relacional en la nube.

Despliegue:

- Aplicación Web Responsive.

Sistemas de hardware:

- Red Local
- Servidor
- Salida a Internet
- Soporte de Electricidad
- Equipos de Computo

Sistemas de software:

- **Sistema Operativo:** Windows 10, 11 y Linux/Manjaro 21.2.2

- **Navegador:** Google Chrome, Chromium y Opera GX.
- **Bases de datos:** PostgreSQL 12.2 / MySQL 8.0.28
- **Servidor:**
 - Desarrollo - Node JS y Payara
 - Despliegue - Heroku
- **Lenguaje de programación:** Java EE 9 y TypeScript
- **Framework:** Angular 12 y Spring
- **IDE:** Visual Studio Code y Netbeans 12.6
- **Control de Versiones:** Git
- **ORM:** Hibernate o javax-persistence
- **Librerías:** Bootstrap 5.0.2, Mockup, Mockito y Unit Test

Interfaces Hombre-Máquina:

- Cualquier dispositivo con acceso a un navegador.

Conexiones Externas:

- Servidor SMTP de Gmail
- Heroku
- GitHub

Funciones Operacionales:

Funcionales

- CRUD de clientes.
- CRUD de rutas.
- CRUD de usuarios.
- CRUD de puntos de control.
- CRUD de locación
- Ingreso y entrega de paquetes
- Ingreso y modificación de tarifa de operación global.

- Ingreso y modificación de precio por libra.
- Ingreso y modificación de precio de priorización.
- Ingreso y modificación de cuota de destino.
- Ingreso y modificación de partidas y destinos.
- Registro del tiempo de un paquete en un punto de control.
- Registro de retiro de paquete.
- Generación de facturas.
- Asignación de operarios a puntos de control.
- Priorización de paquetes.
- Consulta de localización de paquetes.
- Reporte de rutas.
- Reporte de ganancias.
- Reporte de rutas populares.
- Reporte de clientes.
- Manejo de permiso de roles.
- Exportación de reportes.

No funcional

- Manejo de cola de bodega.
- Ingreso automático de paquetes.
- Manejo de permisos.
- Encriptación de contraseñas.
- Notificaciones vía e-mail.

Glosario

Angular: Es un framework para aplicaciones web desarrollado en TypeScript, de código abierto, mantenido por Google, que se utiliza para crear y mantener aplicaciones web de una sola página. Su objetivo es aumentar las aplicaciones basadas en navegador con capacidad de Modelo Vista Controlador (MVC), en un esfuerzo para hacer que el desarrollo y las pruebas sean más fáciles.

La biblioteca lee el HTML que contiene atributos de las etiquetas personalizadas adicionales, entonces obedece a las directivas de los atributos personalizados, y une las piezas de entrada o salida de la página a un modelo representado por las variables estándar de JavaScript.

Angular se basa en clases tipo "Componentes", cuyas propiedades son las usadas para hacer el binding de los datos. En dichas clases tenemos propiedades (variables) y métodos (funciones a llamar).

Angular es la evolución de AngularJS aunque incompatible con su predecesor.

API: es un conjunto de subrutinas, funciones y procedimientos que ofrece cierta biblioteca para ser utilizada por otro software como una capa de abstracción.

Backend: El backend es la parte del desarrollo web que se encarga de que toda la lógica de una página web funcione. Se trata del conjunto de acciones que pasan en una web pero que no vemos como, por ejemplo, la comunicación con el servidor.

Monolito: En ingeniería de software, una aplicación monolítica hace referencia a una aplicación software en la que la capa de interfaz de usuario, lógica de negocios y la capa de acceso a datos están combinadas en un mismo programa y sobre una misma plataforma.

Una aplicación monolítica es autónoma, e independiente de otras aplicaciones. La filosofía de diseño es que la aplicación es responsable no sólo de una única tarea, si no que es capaz de realizar todos los pasos o tareas necesarias para completar una determinada función CRUD: En informática, CRUD es el acrónimo de "Crear, Leer, Actualizar y Borrar" (del original en inglés: Create, Read, Update and Delete), que se usa para referirse a las funciones básicas en bases de datos o la capa de persistencia en un software.

Despliegue: El Despliegue de software son todas las actividades que hacen que un sistema de software esté disponible para su uso.

El proceso de implementación general consiste en varias actividades interrelacionadas con posibles transiciones entre ellas. Estas actividades pueden ocurrir en el lado del desarrollador de software o en el lado del consumidor o en ambos. Debido a que cada sistema de software es único, los procesos o procedimientos precisos dentro de cada actividad difícilmente pueden definirse. Por lo tanto, la "implementación" debe interpretarse como un proceso general que debe personalizarse de acuerdo con los requisitos o características específicas.

Framework: Un Framework es una estructura previa que se puede aprovechar para desarrollar un proyecto.

El Framework es una especie de plantilla, un esquema conceptual, que simplifica la elaboración de una tarea, ya que solo es necesario complementarlo de acuerdo a lo que se quiere realizar.

A pesar de que su uso más común es en la informática, este concepto es también utilizado en el marketing.

En ambas áreas facilita mucho el trabajo, ya sea del desarrollo de un software o de una estrategia de mercadotecnia.

Frontend: El frontend es la parte del desarrollo web que se dedica a la parte frontal de un sitio web, en pocas palabras del diseño de un sitio web, desde la estructura del sitio hasta los estilos como colores, fondos, tamaños hasta llegar a las animaciones y efectos.

Es esa parte de la página con la que interactúan los usuarios de la misma, es todo el código que se ejecuta en el navegador de un usuario, al que se le denomina una aplicación cliente, es decir, todo lo que el visitante ve y experimenta de forma directa.

Un front-end, es la persona que se dedica básicamente al diseño web, pero esto no significa que no toque código, tanto el front-end como el back-end están en contacto con código todo el tiempo.

IDE: Un entorno de desarrollo integrado (IDE) es un sistema de software para el diseño de aplicaciones que combina herramientas comunes para desarrolladores en una sola interfaz de usuario gráfica (GUI).

Java EE: Oracle Platform, Enterprise Edition o Java EE, es una plataforma de programación para desarrollar y ejecutar software de aplicaciones en el lenguaje de programación Java. Permite utilizar arquitecturas de N capas distribuidas y se apoya ampliamente en componentes de software modulares ejecutándose sobre un servidor de aplicaciones. La plataforma Java EE está definida por una especificación. Similar a otras especificaciones del Java Community Process (JCP), Java EE es también considerado informalmente como un estándar debido a que los proveedores deben de cumplir ciertos requisitos de conformidad para declarar que sus productos son conformes a Java EE; estandarizado por JCP.

Microservicios: Los microservicios son un enfoque arquitectónico y organizativo para el desarrollo de software donde el software está compuesto por pequeños servicios independientes que se comunican a través de API bien definidas. Los propietarios de estos servicios son equipos pequeños independientes.

Las arquitecturas de microservicios hacen que las aplicaciones sean más fáciles de escalar y más rápidas de desarrollar. Esto permite la innovación y acelera el tiempo de comercialización de las nuevas características.

Mockup: Un mockup, traducido del inglés como bosquejo, es un fotomontaje a través del cual los diseñadores gráficos pueden presentar sus propuestas a los clientes.

Los mockups cuentan con muchos usos. No sólo sirven para presentar las propuestas del diseño de logos. Se utilizan también con mucha frecuencia en el diseño web y el diseño de apps. Por ejemplo, podemos encontrar mockups para lucir diseños de camisetas o incluso calcetines en tiendas online o e-commerce que aún no han llegado a fabricar este producto.

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ORM: Es un modelo de programación que permite mapear las estructuras de una base de datos relacional (SQL Server, Oracle, MySQL, etc.), en adelante RDBMS (Relational

Database Management System), sobre una estructura lógica de entidades con el objeto de simplificar y acelerar el desarrollo de nuestras aplicaciones.

Las estructuras de la base de datos relacional quedan vinculadas con las entidades lógicas o base de datos virtual definida en el ORM, de tal modo que las acciones CRUD (Create, Read, Update, Delete) a ejecutar sobre la base de datos física se realizan de forma indirecta por medio del ORM.

PostgreSQL: Es un sistema de gestión de bases de datos relacional orientado a objetos y de código abierto, publicado bajo la licencia PostgreSQL, similar a la BSD o la MIT.

Como muchos otros proyectos de código abierto, el desarrollo de PostgreSQL no es manejado por una empresa o persona, sino que es dirigido por una comunidad de desarrolladores que trabajan de forma desinteresada, altruista, libre o apoyados por organizaciones comerciales. Dicha comunidad es denominada el PGDG (PostgreSQL Global Development Group).

PostgreSQL no tiene un gestor de errores (bugs), haciendo muy difícil conocer el estado de corrección de los mismos.

Responsive: Una Web Responsive es aquella que es capaz de adaptarse a cualquier dispositivo donde se visualice. Las estadísticas muestran el creciente tráfico web que se genera desde dispositivos móviles, pero además Google penaliza ya en su buscador a aquellas webs que no son responsables. Si tu sitio web está obsoleto, es el momento de ponerte en manos de nuestro equipo para diseñar una web responsive con las mejores garantías.

Servidor SMTP de Gmail: Con el servidor SMTP de Gmail, se puede enviar correos electrónicos desde tu cuenta de Gmail utilizando otros clientes de correo electrónico, como Outlook o Thunderbird. Pero lo más importante es que también se puede usar el servidor SMTP de Gmail para enviar correos electrónicos desde tu sitio de WordPress.

Spring: Spring es un framework para el desarrollo de aplicaciones y contenedor de inversión de control, de código abierto para la plataforma Java. Su finalidad es estandarizar, agilizar, manejar y resolver los problemas que puedan ir surgiendo en el trayecto de la programación.

Spring, ofrece como elemento clave el soporte de infraestructura a nivel de aplicación, brindando un completo modelo tanto para la configuración como para la programación de

aplicaciones empresariales desarrolladas bajo Java, sin discriminación en cuanto al despliegue de la plataforma.

Historias de Usuario

General

1. Iniciar sesión
2. Cerrar sesión
3. Resetear contraseña

Administrador

4. Registrar Empleado
5. Modificar Empleado
6. Desactivar Empleado
7. Crear ruta(nombre, destino, puntos de control)
8. Modificar ruta
9. Eliminar ruta
10. Desactivar ruta
11. Activar ruta
12. Crear punto de control(nombre, tarifa de operación, usuario encargado)
13. Modificar punto de control
14. Eliminar punto de control
15. Crear destino(cuota, información)
16. Editar destino
17. Eliminar destino
18. Modificar capacidad de cola de un punto de control
19. Establecer tarifa de operación global
20. Modificar tarifa de operación global
21. Modificar tarifa de operación de punto de control
22. Establecer precio por libra
23. Modificar precio por libra
24. Establecer tarifa de priorización
25. Modificar tarifa de priorización
26. Actualizar asignación de operador en punto de control

- 27. Ver reporte de rutas indicando la cantidad de paquetes que están actualmente en ruta e indicando la cantidad de paquetes que ya han salido de la ruta
- 28. Ver reporte de ganancias en un intervalo de tiempo
- 29. Ver reporte de clientes
- 30. Ver reporte de las 3 rutas más populares en un intervalo de tiempo
- 31. Exportar reporte
- 32. Ver la imagen de una ruta seleccionada

Operador

- 33. Procesar paquete(registrar horas)

Recepcionista

- 34. Registrar cliente(nombre, nit, ciudad)
- 35. Modificar cliente
- 36. Ingresar paquete(peso, cuota de destino)
- 37. Eliminar paquete
- 38. Entregar paquete
- 39. Buscar cliente por NIT
- 40. Ver listado de paquetes en destino sin retirar
- 41. Consultar localización de paquete(punto de control, tiempo en ruta)

1. Historias de Usuario Generales

User Story No.1		
Title	Priority	Estimate
Log In	Must	3
User Story		
As an administrator, receptionist or operator I want to be able to login So that I can access the system.		
Acceptance Criteria		
Scenario A user logs in to the system Given that i am on the login page When i enter a username and password correctly And click login Then i will be redirected to the home page		
Scenario A user tries to logs in to the system and he did not complete the fields Given that i am on the login page When i don't enter a username Or i don't enter a password And click login Then i will be indicated that the required field is empty		
Scenario A user logs in to the system with wrong information Given that i am on the login page When i enter an invalid username or password And click login Then i will be indicated that the user information is incorrect		
Scenario A user tries to logs in to the system but he doesn't have an account Given that i am on the login page When i am not registered And click sign up Then i will be indicated to contact an administrator		

User Story No.2		
Title	Priority	Estimate
Log Out	Must	1
User Story		
<p>As an administrator, receptionist or operator I want to be able to logout so that I can close my session and leave the system.</p>		
Acceptance Criteria		
<p>Scenario User logouts of the system Given that i am logged in And that i am logged in When i click the logout button Then i will be redirected to the login page</p>		

User Story No.3		
Title	Priority	Estimate
Reset Password	Should	8
User Story		
<p>As an administrator, receptionist or operator, I want to be able to reset my password when I forget it so that I can access the system again.</p>		
Acceptance Criteria		
<p>Scenario Employee forgets him/his password Given that i am logged in And that i am the login page When i click the button to recover password Then i receive an email with the recovery information for account</p>		

2. Historias de Usuario Administrador

User Story No.4		
Title	Priority	Estimate
Register Employee	Must	5
User Story		
As an administrator I want to register employees So that they can log in to the system.		
Acceptance Criteria		
Scenario Admin creates a new user entering the employee's information. Given I'm logged in And I'm on the register page When I enter a username that's not repeated, a valid password, a role and personal information And click submit button Then the user is registered on the system.		
Scenario Admin creates a new user with an existing username. Given I am logged in And I am on the register page When I enter an existing username And click submit button Then i will be indicated that the username is taken		
Scenario Admin enters the form to create a new user and clicks cancel Given that i am logged in And that i am on the register page When i enter the employee's information And click cancel Then i will be redirected to the home page		

User Story No.5		
Title	Priority	Estimate
Update Employee	Should	5
User Story		
<p>As an administrator I want to update employee's information So that the system can stay up to date with the user's data</p>		
Acceptance Criteria		
<p>Scenario Admin updates a user's information Given that i am logged in And that i am select a user from the active employees list And click update When i enter change the user's information And click submit Then i will be indicated that the user's information is updated</p>		
<p>Scenario Admin updates a user's information with a repeated username Given that i am logged in And that i am select a user from the active employees list And click update When i enter a repeated username And click submit Then i will be indicated that the username is taken</p>		
<p>Scenario Admin updates a user's information with invalid fields Given that i am logged in And that i am select a user from the active employees list And click update When i enter invalid fields And click submit Then i will be redirected to the the fields are invalid</p>		
<p>Scenario Admin updates a user's information but clicks cancel Given that i am logged in And that i am select a user from the active employees list And click update When i enter change the user's information And click cancel Then i will be redirected to the active employees list page</p>		

User Story No.6		
Title	Priority	Estimate
Deactivate Employee	Must	3
User Story		
As an administrator I want to deactivate users So that they can't log in to the system anymore		
Acceptance Criteria		
Scenario Admin deletes an existing user selecting the employee's username. Given that i am logged in And that i am on the active employees list page When i select an active user And click delete Then the user will be eliminated		
Scenario Admin deletes an existing user but clicks cancel Given that i am logged in And that i am on the active employees list page When i select an active user And click cancel Then i will be redirected to the active employees list page		

User Story No.7		
Title	Priority	Estimate
Create Route	Must	8
User Story		
As an administrator I want to create a route So that I can have different routes to send packages.		
Acceptance Criteria		
Scenario Admin create a new route into the system Given that I am logged in And that I am on the routes list page When I enter a valid route And click submit button Then the route is registered on the system		
Scenario Admin enters the form to create a new route and clicks cancel Given that i am logged in And that i am on the routes list pages When i enter a valid route		

And click cancel
Then i will be redirected to the home page

User Story No.8		
Title	Priority	Estimate
Update Route	Should	8
User Story		
As an administrator I want to update a route So that I can have up to date information about it.		
Acceptance Criteria		
Scenario Admin update a route information Given that I am logged in And I am on the routes list page When I select a route and click the button edit route And edit the route information And click update Then the route has been updated		
Scenario Administrator updates a route information but clicks cancel Given that i am logged in And that i am on route edit page When click cancel Then i will be redirected to the routes list pages		
Scenario Administrator updates a route information without filling in fields Given that i am logged in And that i am on the route edit page When i leave the queue capacity field empty Then i will be notified that the fields are empty		

User Story No.9		
Title	Priority	Estimate
Delete Route	Should	3
User Story		
As an administrator I want to delete a route So that I can remove the route of the system.		

Acceptance Criteria
Scenario Admin deletes an existing router selecting the route id. Given that I am logged in And that I am on the routes list page When I select a route And click delete Then the route will be eliminated
Scenario Admin deletes an existing route but clicks cancel Given that I am logged in And that I am on the active routes list page When I select a route And click cancel Then i will be redirected to the router list page

User Story No.10		
Title	Priority	Estimate
Activate Route	Must	3
User Story		
As an administrator I want to activate a route So that I can restore service on it.		
Acceptance Criteria		
Scenario Admin activate an existing route select the route id Given that I am logged in And that I am on the routes list page When I select the route And click the button activate route Then the route will be activated		

User Story No.11		
Title	Priority	Estimate
Deactivate Route	Must	3
User Story		
As an administrator I want to deactivate a route So that I can maintain or fix any problem with the route.		

Acceptance Criteria
Scenario Admin deactivate an existing route select the route id Given that I am logged in And that I am on the routes list page When I select the route And click the button deactivate route Then the route will be deactivated
Scenario Administrator deactivate an existing route but clicks cancel Given that i am logged in And that i am on route edit page When click cancel Then i will be redirected to the routes list pages

User Story No.12		
Title	Priority	Estimate
Create Checkpoint	Must	8
User Story		
As an administrator I want to create a checkpoint So that I can trace packages sent on different routes.		
Acceptance Criteria		
Scenario Admin create a new checkpoint into the system Given that I am logged in And that I am on the checkpoint list of a route page When I enter a valid checkpoint And click submit button Then the checkpoint is registered on the system		
Scenario Admin enters the form to create a new checkpoint and clicks cancel Given that i am logged in And that i am on the checkpoint list of a route page When i enter a valid checkpoint And click cancel Then i will be redirected to the home page		

User Story No.13		
Title	Priority	Estimate
Update Checkpoint	Must	8
User Story		
As an administrator I want to update a checkpoint So that I can have up to date information about it.		
Acceptance Criteria		
Scenario Admin update a checkpoint information Given that I am logged in And I am on the checkpoint list of a route page When I select a checkpoint and click the button edit And edit the checkpoint information And click update Then the checkpoint has been updated		
Scenario Administrator updates a checkpoint information but clicks cancel Given that i am logged in And that i am on the checkpoint edit page When click cancel Then i will be redirected to the checkpoint list pages		
Scenario Administrator updates a checkpoint information without filling in fields Given that i am logged in And that i am on the checkpoint edit page When i leave the queue capacity field empty Then i will be notified that the fields are empty		

User Story No.14		
Title	Priority	Estimate
Delete Checkpoint	Could	3
User Story		
As an administrator I want to delete a checkpoint So that I can remove it from the system.		
Acceptance Criteria		
Scenario Admin deletes an existing checkpoint selecting into the checkpoint list of a route. Given that I am logged in And that I am on the checkpoint list of a route page When I select the checkpoint		

And click delete Then the checkpoint will be eliminated
Scenario Administrator deletes a checkpoint but clicks cancel Given that i am logged in And that i am on the checkpoint edit page When click cancel Then i will be redirected to the checkpoint list pages

User Story No.15		
Title	Priority	Estimate
Create Destination	Must	3
User Story		
As an administrator I want to create a destination So that I can have more places to send packages.		
Acceptance Criteria		
Scenario Admin create a new destination into the system Given that I am logged in And that I am on the destination list page When I enter a valid destination And click submit button Then the destination is registered on the system		
Scenario Admin enters the form to create a new destination and clicks cancel Given that i am logged in And that i am on the destination list page When i enter a valid destination And click cancel Then i will be redirected to the home page		
Scenario Admin creates a destination without filling in fields Given that i am logged in And that i am on the destination list page When i leave required empty fields Then i will be notified that the fields are empty		

User Story No.16		
Title	Priority	Estimate
Update Destination	Must	3
User Story		
As an administrator I want to update a destination So that I can have up to date information about it.		
Acceptance Criteria		
Scenario Admin update a destination information Given that I am logged in And I am on the destination list page When I select a destination and click the button edit And edit the destination information And click update Then the destination has been updated		
Scenario Admin enters the form to edit destination and clicks cancel Given that i am logged in And that i am on the destination list page When i enter a valid destination And click cancel Then i will be redirected to the home page		
Scenario Admin edit a destination without filling in fields Given that i am logged in And that i am on the destination list page When i leave required empty fields Then i will be notified that the fields are empty		

User Story No.17		
Title	Priority	Estimate
Delete Destination	Could	3
User Story		
As an administrator I want to delete a destination So that I can remove it from the system.		
Acceptance Criteria		

Scenario Admin deletes an existing checkpoint selecting into the checkpoint list of a route.
Given that I am logged in
And that I am on the checkpoint list of a route page
When I select the checkpoint
And click delete
Then the checkpoint will be eliminated

User Story No.18		
Title	Priority	Estimate
Update Queue Capacity	Must	3
User Story		
<p>As an administrator I want to update queue capacity of checkpoint So that I can have a limit of packages in the queue of the checkpoint.</p>		
Acceptance Criteria		
<p>Scenario Administrator updates queue capacity at a checkpoint Given that i am logged in And that i am on the information page of a checkpoint When i correctly enter the queue capacity And click update Then i will be notified that the queue capacity has been successfully updated</p>		
<p>Scenario Administrator updates queue capacity at a checkpoint but has packets queued Given that i am logged in And that i am on the information page of a checkpoint When the checkpoint has packets queued Then i will be notified that the checkpoint cannot be modified</p>		
<p>Scenario Administrator updates queue capacity at a checkpoint but clicks cancel Given that i am logged in And that i am on information the page of a checkpoint When click cancel Then i will be redirected to the list of checkpoints</p>		
<p>Scenario Administrator updates queue capacity at a checkpoint without filling in fields Given that i am logged in And that i am on the information page of a checkpoint When i leave the queue capacity field empty Then i will be notified that the queue capacity field is empty</p>		
<p>Scenario Administrator updates queue capacity at a checkpoint with invalid information Given that i am logged in And that i am on the information page of a checkpoint When i enter an invalid queue capacity Then i will be notified that the queue capacity field is invalid</p>		

User Story No.19		
Title	Priority	Estimate
Set global operation fee	Must	1
User Story		
<p>As an administrator I want to set a global operation fee So that I can have a standard fee on each checkpoint.</p>		
Acceptance Criteria		
<p>Scenario Administrator sets a global operation fee Given that I am logged in And that I am on the page of operations fee When I enter the global operation fee And click submit Then I will be notified that the global operation fee was place correctly</p>		
<p>Scenario Administrator sets a global operation fee but clicks cancel Given that I am logged in And that I am on the page of operations fee When click cancel Then i will be redirected to the home page</p>		
<p>Scenario Administrator sets a global operation fee without completing the fields Given that I am logged in And that I am on the page of operations fee When i leave the global operation fee field empty Then i will be notified that the global operation fee is empty</p>		
<p>Scenario Administrator sets a global operation fee with invalid information Given that I am logged in And that I am on the page of operations fee When i enter an invalid global operation fee Then i will be notified that the global operation fee is invalid</p>		

User Story No.20		
Title	Priority	Estimate
Update global operation fee	Must	3
User Story		
As an administrator I want to be able to update the global operation fee So that I can modify the global operation fee anytime if costs are growing.		
Acceptance Criteria		
Scenario Administrator updates a global operation fee Given that I am logged in And that I am on the page of operations fee When I enter the global operation fee And click update Then I will be notified that the global operation fee has been successfully updated		
Scenario Administrator updates a global operation fee but clicks cancel Given that I am logged in And that I am on the page of operations fee When click cancel Then I will be redirected to the home page		
Scenario Administrator updates a global operation fee without completing the fields Given that I am logged in And that I am on the page of operations fee When I leave the global operation fee field empty Then I will be notified that the global operation fee is empty		
Scenario Administrator updates a global operation fee with invalid information Given that I am logged in And that I am on the page of operations fee When I enter an invalid global operation fee Then I will be notified that the global operation fee is invalid		

User Story No.21		
Title	Priority	Estimate
Set checkpoint operation fee	Must	3
User Story		
As an administrator I want to set a checkpoint operation fee So that I can adapt to the costs of a specific region.		
Acceptance Criteria		

Scenario Administrator sets a checkpoint operation fee Given that I am logged in And that I am on the on information page of a checkpoint When I enter the operation fee And click submit Then I will be notified that the operation fee was place correctly
Scenario Administrator sets a checkpoint operation fee but has packets queued Given that i am logged in And that I am on the on information page of a checkpoint When the checkpoint has packets queued Then i will be notified that the checkpoint cannot be modified
Scenario Administrator sets a checkpoint operation fee but clicks cancel Given that I am logged in And that I am on the on information page of a checkpoint When click cancel Then i will be redirected to the list of checkpoints
Scenario Administrator sets a checkpoint operation fee without completing the fields Given that I am logged in And that I am on the on information page of a checkpoint When i leave the operation fee field empty Then i will be notified that the operation fee is empty
Scenario Administrator sets a checkpoint operation fee with invalid information Given that I am logged in And that I am on the on information page of a checkpoint When i enter an invalid operation fee Then i will be notified that the operation fee is invalid

User Story No.22		
Title	Priority	Estimate
Set Price Per Pound	Must	3
User Story As an administrator I want to set the price per pound So that I can charge the customer based on the weight of their package.		
Acceptance Criteria Scenario Administrator sets a price per pound Given that I am logged in And that I am on the page of operations fee When I enter the price per pound And click submit Then I will be notified that the price per pound was place correctly		

Scenario Administrator sets a price per pound but clicks cancel Given that I am logged in And that I am on the page of operations fee When click cancel Then i will be redirected to the home page
Scenario Administrator sets a price per pound without completing the fields Given that I am logged in And that I am on the page of operations fee When i leave the price per pound field empty Then i will be notified that the price per pound is empty
Scenario Administrator sets a price per pound with invalid information Given that I am logged in And that I am on the page of operations fee When i enter an invalid price per pound Then i will be notified that the price per pound is invalid

User Story No.23		
Title	Priority	Estimate
Update Price Per Pound	Must	3
User Story		
As an administrator I want to be able to update price per pound So that I can modify it anytime if costs are growing.		
Acceptance Criteria		
Scenario Administrator updates a price per pound Given that I am logged in And that I am on the page of operations fee When I enter the price per pound And click update Then I will be notified that the price per pound has been successfully updated		
Scenario Administrator updates a price per pound but clicks cancel Given that I am logged in And that I am on the page of operations fee When click cancel Then i will be redirected to the home page		
Scenario Administrator updates a price per pound without completing the fields Given that I am logged in And that I am on the page of operations fee When i leave the price per pound field empty Then i will be notified that the price per pound is empty		

Scenario Administrator updates a price per pound with invalid information
Given that I am logged in
And that I am on the page of operations fee
When i enter an invalid price per pound
Then i will be notified that the price per pound is invalid

User Story No.24		
Title	Priority	Estimate
Set Prioritization Fee	Must	3
User Story		
As an administrator I want to set a prioritization fee So that I can offer to customer prioritization of their packages.		
Acceptance Criteria		
Scenario Administrator sets a prioritization fee Given that I am logged in And that I am on the page of operations fee When I enter the prioritization fee And click submit Then I will be notified that the prioritization fee was place correctly		
Scenario Administrator sets a prioritization fee but clicks cancel Given that I am logged in And that I am on the page of operations fee When click cancel Then i will be redirected to the home page		
Scenario Administrator sets a prioritization fee whiteout completing the fields Given that I am logged in And that I am on the page of operations fee When i leave the prioritization fee field empty Then i will be notified that the prioritization fee is empty		
Scenario Administrator sets a prioritization fee with invalid information Given that I am logged in And that I am on the page of operations fee When i enter an invalid prioritization fee Then i will be notified that the prioritization fee is invalid		

User Story No.25		
Title	Priority	Estimate
Update Prioritization Fee	Must	3
User Story		
As an administrator I want to be able to update prioritization fee So that I can modify it anytime if costs are growing.		
Acceptance Criteria		
Scenario Administrator updates a prioritization fee Given that I am logged in And that I am on the page of operations fee When I enter the prioritization fee And click update Then I will be notified that the prioritization fee has been successfully updated		
Scenario Administrator updates a prioritization fee but clicks cancel Given that I am logged in And that I am on the page of operations fee When click cancel Then i will be redirected to the home page		
Scenario Administrator updates a prioritization fee without completing the fields Given that I am logged in And that I am on the page of operations fee When i leave the prioritization fee field empty Then i will be notified that the prioritization fee is empty		
Scenario Administrator updates a prioritization fee with invalid information Given that I am logged in And that I am on the page of operations fee When i enter an invalid prioritization fee Then i will be notified that the prioritization fee is invalid		

User Story No.26		
Title	Priority	Estimate
Update assignment of an Operator to a Checkpoint	Must	5
User Story		
As an administrator I want to be able to update the assignment of an operator to a checkpoint So that I can change operators anytime.		

Acceptance Criteria
Scenario Administrator updates the assignment of an operator to a checkpoint Given that I am logged in And that I am selecting a checkpoint from the list of checkpoints When I selected a new operator And click update Then I will be notified that the operator has been successfully updated
Scenario Administrator updates the assignment of an operator to a checkpoint but has packets queued Given that i am logged in And that I am selecting a checkpoint from the list of checkpoints When the checkpoint has packets queued Then i will be notified that the checkpoint cannot be modified
Scenario Administrator updates the assignment of an operator to a checkpoint but click cancel Given that I am logged in And that I am selecting a checkpoint from the list of checkpoints When click cancel Then i will be redirected to the list of checkpoints

User Story No.27		
Title	Priority	Estimate
Report 1	Must	5
User Story		
<p>As an administrator</p> <p>I want to view a route report indicating the number of packages that are currently in route and indicating the number of packages that have already left the route.</p> <p>So that I can have information about routes and the amount of packages.</p>		
Acceptance Criteria		
Scenario Admin sees the report of a route where it indicates the number of current packages and packages that have already been removed Given that I am logged in And I am on the route list When I select a route from the list Then I will be able to see the report of the selected route with the number of current packages and packages already removed		

User Story No.28		
Title	Priority	Estimate
Report 2	Must	5
User Story		
<p>As an administrator I want to view an earnings report in a time interval. So that I can make financial decisions.</p>		
Acceptance Criteria		
<p>Scenario Admin view earnings report in a time interval Given that I am logged in And I select the earnings report When i enter a start date and an end date And click submit Then: I will be able to see the earnings report in the entered interval</p>		
<p>Scenario Admin view earnings report in a time interval with a start date Given that I am logged in And I select the earnings report When i enter a start date And click submit Then I will be able to see earnings report from start date to the present day</p>		
<p>Scenario Admin view earnings report in a time interval with an end date Given that I am logged in And I select the earnings report When i enter an end date And click submit Then I will be able to see earnings report from the first date of existing data to the end date</p>		
<p>Scenario Admin view earnings report in a time interval without entering dates Given that I am logged in And I select the earnings report When I click submit Then I will be able to see earnings report from the first date of existing to the present day</p>		

User Story No.29		
Title	Priority	Estimate
Report 3	Must	5
User Story		

<p>As an administrator</p> <p>I want to view a customer's report.</p> <p>So that I can know how often customers send packages.</p>
Acceptance Criteria
<p>Scenario Administrator views customers report</p> <p>Given admin is logged in on system</p> <p>And requests a customers report</p> <p>When admin clicks on Customers Report button</p> <p>Then the system shows the requested report.</p>
<p>Scenario Administrator search information by customer on customers report</p> <p>Given admin is logged in on system</p> <p>And is currently viewing customers report</p> <p>When admin enters a customer</p> <p>And clicks on search button</p> <p>Then the system shows a report with only found information about entered customers.</p>

User Story No.30		
Title	Priority	Estimate
Report 4	Must	5
User Story		
<p>As an administrator</p> <p>I want to view a report of 3 most popular routes in a time interval.</p> <p>So that I can know which routes are more used.</p>		
Acceptance Criteria		
<p>Scenario Administrator views report in a time interval</p> <p>Given admin is logged in on system</p> <p>And requests a 3 most popular routes report</p> <p>When enters a start date and an end date</p> <p>And clicks report button</p> <p>Then the system shows the requested report on the indicated date interval.</p>		
<p>Scenario Administrator views report in a time interval with only a start date</p> <p>Given admin is logged in on system</p> <p>And requests a 3 most popular routes report</p> <p>When enters only a start date</p> <p>And clicks report button</p> <p>Then the system shows the requested report since the indicated date until now.</p>		
<p>Scenario Administrator views report in a time interval with only an end date</p> <p>Given admin is logged in on system</p> <p>And requests a 3 most popular routes report</p> <p>When enters only an end date</p>		

<p>And clicks report button</p> <p>Then the system shows the requested report since start of time until the indicated date.</p>
<p>Scenario Administrator views earnings report in a time interval without entering dates</p> <p>Given admin is logged in on system</p> <p>And requests a 3 most popular routes report</p> <p>When enters only an end date</p> <p>And clicks report button</p> <p>Then the system shows the requested report since start of time until now.</p>

User Story No.31		
Title	Priority	Estimate
Export Report	Must	8
User Story		
<p>As an administrator</p> <p>I want to export a report.</p> <p>So that I can save it to my computer.</p>		
Acceptance Criteria		
<p>Scenario Administrator exports a report</p> <p>Given Administrator is logged in on system</p> <p>And is currently on any report</p> <p>When clicks on Export button</p> <p>Then the system allows the administrator to save the report.</p>		

User Story No.32		
Title	Priority	Estimate
View Route Image	Could	13
User Story		
<p>As an administrator</p> <p>I want to view the image of a selected route.</p> <p>So that I can view a graphical description of it.</p>		
Acceptance Criteria		
<p>Scenario Administrator views route image</p> <p>Given Administrator is logged in on system</p> <p>And is currently on any route</p> <p>When clicks on Image button</p>		

Then the system shows an image of the route.

3. Historias de Usuario Operador

User Story No.33		
Title	Priority	Estimate
Process package	Must	3
User Story		
As an operator I want to process a package So that I can register the time taken of the package at a checkpoint.		
Acceptance Criteria		
Scenario All data entered by operator is correct Given Operator is logged in on system And selects a package to process When operator enters all required data And clicks Process button Then the package is processed by the system and continues with its route.		
Scenario Some data entered by operator is incorrect Given Operator is logged in on system And selects a package to process When operator enters all required data but some data has an invalid format or is incorrect And clicks Process button Then the system shows a warning indicating all errors generated.		

4. Historias de Usuario Recepcionista

User Story No.34		
Title	Priority	Estimate
Register Customer	Must	5
User Story		
As a receptionist , I want to register a new client so that I can use his information in a transaction		
Acceptance Criteria		
Scenario Receptionist registers a new client Given that i am logged in And that i am on the new client form When i enter the client's information correctly		

And click register Then i will be notified that the client was registered correctly
Scenario Receptionist registers a new client but clicks cancel Given that i am logged in And that i am on the new client form When click cancel Then i will be redirected to the home page
Scenario Receptionist registers a client that is already registered Given that i am logged in And that i am on the new client form When i enter an already registered NIT And click register Then i will be notified that the client has already been registered
Scenario Receptionist registers a new client without filling in required fields Given that i am logged in And that i am on the new client form When i leave empty required fields And click register Then i will be notified that the required field is empty
Scenario Receptionist registers a new client with invalid information Given that i am logged in And that i am on the new client form When i enter invalid information And click register Then i will be notified that the information is invalid

User Story No.35		
Title	Priority	Estimate
Update Customer	Should	5
User Story As a receptionist I want to be able to update a customer So that I can modify his/her information anytime.		
Acceptance Criteria Scenario Receptionist updates a client Given receptionist is logged in on system And is currently on update client form When enters client's information correctly And clicks update button Then the system updates customer information and shows a message indicating a successful update done.		

Scenario Receptionist tries to update a client and provide an already registered NIT Given receptionist is logged in on system And is currently on update client form When enters client's information And provided NIT is owned by other customer And clicks update button Then the system shows a message indicating the error.
Scenario Receptionist tries to update a client without filling all required fields Given receptionist is logged in on system And is currently on update client form When enters client's information And doesn't fill all required fields And clicks update button Then the system shows a message indicating the error.
Scenario Receptionist tries to update a client with invalid information Given receptionist is logged in on system And is currently on update client form When enters client's information And provides invalid data And clicks update button Then the system shows a message indicating the error.

User Story No.36		
Title	Priority	Estimate
Enter a Package	Must	5
User Story		
As a receptionist I want to enter a package So that I can register the package on the system and put it in the queue.		
Acceptance Criteria		
Scenario All data provided is correct Given Receptionist is logged in on system And is currently on enter package form When enters package data And all data is correct Then the system enters the package, sends it to the queue and proceeds with facturacion.		
Scenario Some data provided is incorrect Given Receptionist is logged in on system And is currently on enter package form When enters package data And some data is incorrect Then the system shows a message indicating the error.		

Scenario Some required fields are not filled.
Given Receptionist is logged in on system
And is currently on enter package form
When enters package data
And some required fields does not have any data
Then the system shows a message indicating the error.

User Story No.37		
Title	Priority	Estimate
Delete Package	Won't	5
User Story		
<p>As a receptionist I want to delete a package So that I can remove it from the system if something went wrong entering the package or some other strange situation.</p>		
Acceptance Criteria		
<p>Scenario Receptionist delete a package Given Receptionist is logged in on system And search a package When package have been entered now and is still on queue and not assigned to a route When clicks on delete button Then the system removes the package from the queue and removes all data about it.</p>		

User Story No.38		
Title	Priority	Estimate
Deliver Package	Must	5
User Story		
<p>As a receptionist I want to be able to mark as delivered a package So that I can give it to customers.</p>		
Acceptance Criteria		
<p>Scenario Receptionits mark as delivered a package Given Receptionist is logged in on system And searches a package that is on destination When clicks button Deliver</p>		

Then the package is marked as delivered on the system and the receptionist can deliver it to the customer.
Scenario Receptionists tries to mark as delivered a package that is not on destination. Given Receptionist is logged in on system And searches a package And the package is not on destination When clicks button Deliver Then the system shows a message indicating the error.

User Story No.39		
Title	Priority	Estimate
Search client information by NIT	Must	3
User Story		
As a receptionist I want to search for a client's information by NIT so that I can use his/her information on a transaction.		
Acceptance Criteria		
Scenario Receptionist searches a customer's data Given that i am logged in And that i am on the sales page When i search for a customer by their NIT And i select it correctly And click submit Then the customer information will be associated with the current transaction		
Scenario Receptionist searches a new customer's data then register him Given that i am logged in And that i am on the sales page When i search for a customer by their NIT And not registered Then i create the new client And the customer information will be associated with the current transaction		
Scenario Receptionist searches a customer's data but clicks cancel Given that i am logged in And that i am on the sales page When i search for a customer by their NIT And i select it correctly And click cancel Then i can enter another NIT to associate with another client		

User Story No.40		
Title	Priority	Estimate
View List of Packages	Must	3
User Story		
<p>As a receptionist</p> <p>I want to view a list of packages on destination</p> <p>So that I can know which packages haven't been picked up.</p>		
Acceptance Criteria		
<p>Scenario Receptionist log in</p> <p>Given Receptionist tries to log in on system</p> <p>And clicks button Log In</p> <p>When enters to home page</p> <p>Then the system automatically shows a list of all packages on the destination.</p>		
<p>Scenario Receptionist go to home page</p> <p>Given Receptionist is logged in on system</p> <p>When clicks button Home</p> <p>Then the system automatically shows a list of all packages on the destination.</p>		

User Story No.41		
Title	Priority	Estimate
Trace a Package	Must	3
User Story		
<p>As a receptionist</p> <p>I want to trace a package</p> <p>So that I can give the customer information about where her/his package is anytime.</p>		
Acceptance Criteria		
<p>Scenario Trace of not delivered package</p> <p>Given Receptionist is logged in on system</p> <p>And tries to trace a package</p> <p>When enters package id</p>		

And clicks Trace button

Then the system shows information and current location of the package.

Scenario Trace of delivered package

Given Receptionist is logged in on system

And tries to trace a package

When enters package id

And clicks Trace button

And package has been delivered before

Then the system shows a message indicating the package is no longer on the system.