< Sistema de Gestión de la Empresa de Transporte y Turismo Hualgayoc >

System-Wide Requirements Specification

# Introdución

# System-Wide Functional Requirements

* Todo usuario del sistema debe estar registrado y autenticado.
* El área de administración puede obtener la información actualizada de lo que requiera

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| Registrar, buscar y eliminar servicio realizado |
| Registrar, buscar y eliminar repuestos de mantenimiento. |
| Registrar, buscar y eliminar personal. |
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* El almacenero tendrá un control detallado de todos los productos, así como las entradas y salidas de estos. También se contara con los reportes requeridos para cada área.

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| Registro y Búsqueda por código, descripción, stock bajo de producto. |
| Realizar el registro de productos que entraran al almacén. |
| Registrar cada salida de los productos de almacén. |
| Reducir y aumentar stock |
| Materiales que no salen de almacén como medio año. |
| Listar todos los productos que se encuentran en almacén. |
| Realizar informe de ingreso y salida de productos. |
| Realizar búsqueda de bajo stock para realizar reporte. |
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# System Qualities

## Usability

* La interfaz de usuario debe ser orientada a ventanas, y al manejo del programa a través del teclado y del ratón.
* La interfaz del sistema es intuitiva, de fácil uso y entrenamiento.
* Muestra mensajes de error.
* No podrá cerrarse una aplicación hasta no concluir con las demás.
* Se aplicaran algunos puntos de los siguientes estándares, para el desarrollo del sistema:
* Los estándares utilizados ISO 14915 para la Ergonomía de software para interfaz multimedia
* ISO 11064: Diseño ergonómico para centros de control.
* IEC TR 61997: Guías de interfaz de usuario en equipos multimedia de uso general.

## Reliability

* Existirá una persona indicada de brindar soporte, en el caso de que sea requerido.
* El sistema tendrá un tiempo de evaluación del sistema de seis meses, en el cual el usuario reportara de algún error, falló en el mismo.
* Se realizaran un BackUp cada cierto periodo para asegurar la información.

## Performance

* El tiempo de respuesta a consultas, actualizaciones, altas, modificaciones y bajas ha de

ser inferior a 10 Segundo's.

* El sistema puede atender a 5 clientes dentro de un periodo de tiempo comprendido entre las 9:00 am y 11 am
* La carga máxima en otros periodos será de 1500
* El inicio del sistema será de 5 minutos como máximo
* El tiempo que el sistema tarda en apagarse es de 3 minutos como máximo

## Supportability

El sistema está implementado en un estilo arquitectónico de cuatro capas, el cual nos permite:

* Abstracción ya que los cambios se realizan a alto nivel y se puede incrementar o reducir el nivel de abstracción que se usa en cada capa del modelo.
* Aislamiento ya que se pueden realizar actualizaciones en el interior de las capas sin que esto afecte al resto del sistema.
* Rendimiento ya que distribuyendo las capas en distintos niveles físicos se puede mejorar la escalabilidad, la tolerancia a fallos y el rendimiento.
* Testeabilidad ya que cada capa tiene una interfaz bien definida sobre la que realizar las pruebas y la habilidad de cambiar entre diferentes implementaciones de una capa.
* Independencia ya que elimina la necesidad de considerar el hardware y el despliegue así como las dependencias con interfaces externas.

# System Interfaces

[Interface Requirements are part of the + in the FURPS+ classification of supporting requirements. Define the interfaces that must be supported by the application. It should contain adequate specificity, protocols, ports and logical addresses, and so forth, so that the software can be developed and verified against the interface requirements.]

## User Interfaces

[Describe the user interfaces that are to be implemented by the software. The intention of this section is to state requirements relating to the interface. Interface design may overlap the requirements gathering process.]

### Look & Feel

[Provide a description of the spirit of the interface. Your client may have given you particular demands such as style, colors to be used, and degree of interaction and so on. This section captures the requirements for the interface rather than the design for the interface.]

### Layout and Navigation Requirements

[Capture requirements on major screen areas and how they should be grouped together.]

### Consistency

[Consistency in the user interface enables users to predict what will happen. This section states requirements on the use of mechanisms to be employed in the user interface. This applies both within the system and with other systems and can be applied at different levels: navigation controls, screen areas sizes and shapes, placements for entering / presenting data, terminology.]

### User Personalization & Customization Requirements

[Requirements on content that should automatically displayed to users or available based on user attributes. Sometimes users allowed to customize the content displayed or to personalize displayed content.]

## Interfaces to External Systems or Devices

[Are there any external systems with which this system must interface? Are there any constraints on the nature of the interface between this system and any external system, such as the format of data passed between these systems, and any particular protocol used? Consider both provided and required interfaces.]

### Software Interfaces

[This section describes software interfaces to other components of the software system. These may be purchased components, components reused from another application or components being developed for subsystems outside of the scope of this SRS, but with which this software application must interact.]

### Hardware Interfaces

[This section defines any hardware interfaces that are to be supported by the software, including logical structure, physical addresses, expected behavior, and so on.]

### Communications Interfaces

[Describe any communications interfaces to other systems or devices such as local area networks, remote serial devices, and so on.]

# Business Rules

[Business rules are statements that define or constrain some aspect of the business. Business rules are often represented as production rules when they are meant to be directly executed by an IT System: a production rule is an independent statement of programming logic that specifies the execution of one or more actions in the case that its conditions are satisfied. Production Rules define the operation semantic for the system in a technologic independent way. They constrain the behavior expressed in system use cases.

Organize this document on rule classes, a high level grouping of candidate or actual rules about one **business concept** with a specific kind of **logic processing**, example: Driver Risk Assessment Rules or Customer Validation Rules.]

## <Rule class name>

### <Rule name and ID>

[The description defines the rule. It can be made in natural language typically following a decision table or a pattern like: if [condition-list] then [action-list], example:

If there are at least 3 items of the same type in the customer shopping cart and each item’s value is greater than $30 then give to the customer a voucher whose value is 10% of the cheapest item.]

# System Constraints

[Constraints are part of the + in the FURPS+ classification of supporting requirements. Describe any design; implementation or deployment constraints on the system being built that have been mandated and must be adhered to. Examples include software implementation languages, prescribed use of developmental tools, third-party components or class libraries, platform support, resource limits and requirements on the shape, size or weight of the resulting hardware housing the system.]

# System Compliance

## Licensing Requirements

[Define any licensing enforcement requirements or other usage restriction requirements that are to be exhibited by the software.]

## Legal, Copyright, and Other Notices

[This section describes any necessary legal disclaimers, warranties, copyright notices, patent notice, wordmark, trademark, or logo compliance issues for the software.]

## Applicable Standards

[This section describes by reference any applicable standards and the specific sections of any such standards that apply to the system being described. For example, this could include legal, quality and regulatory standards, industry standards for usability, interoperability, internationalization, operating system compliance, and so forth.]

# System Documentation

[Describes the requirements, for on-line user documentation, help systems, help about notices, and so on. Set expectations for the documentation and to identify who will be responsible for creating it.]