## TEC DE COSTA RICA – ESCUELA DE COMPUTACIÓN IC-7840 PROYECTO

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# ERS 1 ESPECIFICACIÓN 1 REQUERIMIENTOS SISTEMA

| Grupo: |               |  |
|--------|---------------|--|
|        | Calificación: |  |

| ASPECTO DEL DOCUMENTO   | PONDERAC | NOTA |
|---|----------|------|
| 1-Introducción  | 25       |      |
| 1.1-Propósito del documento ERS 1 iteración   | 1        |      |
| 1.2-Descripción del problema (Plantilla Bittner adjunta)  | 4        |      |
| 1.3-Lista de problemas detectados<br>1.4-Lista de fortalezas detectadas                                   | 1<br>1   |      |
| 1.5-Objetivos del sistema   | <b>-</b> |      |
| 1.5.1-Objetivo general  | 2        |      |
| 1.5.2-Objetivos específicos 1 iterac (Como Casos Uso)   |          |      |
| 1.5.2.1-Objetivo específico   | 3<br>3   |      |
| 1.5.2.2-Criterio de éxito (Uno por cada obj esp) 1.6-Perspectiva del producto por desarrollar 1 iteración | 2        |      |
| (Plantilla Bittner adjunta)   | _        |      |
| 1.7-Reglas del negocio  | 3        |      |
| 1.8-Suposiciones y dependencias   | 1        |      |
| 1.9-Alcances del sistema<br>1.10-Limitaciones o restricciones   | 1<br>1   |      |
| 1.11-StakeHolders y sus necesidades   | 1        |      |
| 1.12-Visión general de la estructura documento ERS 1  | 1        |      |
| iterac  |          |      |
| 2-Requerimientos funcionales  | 45       |      |
| 2.1-Contexto del sistema  |          |      |
| 2.1.1-Diagrama de contexto (Plantilla Wieger adjunta)   | 3        |      |
| 2.1.2-Modelo dominio del sistema  | 5<br>2   |      |
| 2.1.3-Descripción modelo dominio (Para cada concepto indicar intención y extensión)                       | <u>∠</u> |      |
| 2.1.4-Diagrama de casos de uso 1 iterac   | 5        |      |

| ASPECTO  | PONDERAC                        | NOTA |
|--|---------------------------------|------|
| 2.2-Descripción detallada cada CU 1 iterac (ordenados forma descend. por prioridad). 2.2.1-Caso de uso 1: 2.2.1.1-Texto del CU (formato Wiegers adjunta) 2.2.1.2-Pantalla (s) y/o reporte (s) del CU 2.2.1.3-Diagrama de actividades del CU 2.2.1.4-Diagrama de estados del CU 2.2.1.5-Diagrama secuencia del sistema (DSS) 2.2.1.6-Contratos de operaciones 2.2.1.7-Casos de prueba del CU (Datos entrada y resultados) 2.2.2- Caso de uso 2n | 5<br>5<br>5<br>3<br>3<br>4      |      |
| 3-Requerimientos no funcionales  | 15                              |      |
| 3.1-Producto 3.1.1-Eficiencia (desempeño, espacio) 3.1.2-Interfaz local del usuario (descripción, muestra de una pantalla y formato de reportes) 3.1.3-Interfaz Web del usuario (descripción y muestra de una pantalla) 3.1.4-Seguridad 3.2-Organizacionales 3.2.1-Documentación 3.2.2-Entregas 3.2.3-Implementación 3.3-Externos 3.3.1-Interoperabilidad 3.3.2-Legales  | 1<br>4<br>3<br>2<br>1<br>1<br>1 |      |
| Apéndices  | 15                              |      |
| 1-Plan del proyecto en sólo 1 pág (Gantt en Project)<br>(Desgloce semanal y no diario)   | 3                               |      |
| 2-Glosario de términos y abreviaturas (orden alfabético)<br>3-Lista de riesgos (orden descendente de prioridad) Incluir  | 2<br>2                          |      |
| nombre, descrip, prioridad, responsable, etc 4-Descripción de la empresa (departamento) (nombre, dirección, descripción general, organigrama (indicar depto del sistema), persona contacto, email, teléfono) 5-Especificación de estándares Programación (Ejemplos de Interfaz nivel local y Web, Base de datos, nombres de atributos, clases, etc.)   | 3<br>5                          |      |
| OBLIGATORIO (sólo si es impreso)   |                                 |      |
| <ul> <li>✓ Hoja de recibido del usuario</li> <li>✓ Hoja evaluación (este enunciado)</li> <li>✓ Tabla de contenidos (índice)</li> <li>✓ Presentación (empaste)</li> </ul>   | -30<br>-10<br>-5<br>-5          |      |

#### **ANEXOS**

### 1- PLANTILLA PARA DESCRIPCIÓN CU (Formato Wiegers)

| Use Case ID<br>Created By<br>Date Created | UC-1<br>Tim<br>12/4/02  | Use Case Name<br>Last Updated By<br>Date Last Updated | Request a Chemical<br>Janice<br>12/27/02                  |  |
|---|---|---|---|--|
| Actors                                    | Requester   |   |   |  |
| Description                               | The Requester specifies the desired chemical to request by entering its name or chemical ID number or by importing its structure from a chemical drawing tool. The system satisfies the request either by offering the Requester a new or used container of the chemical from the chemical stockroom or by letting the Requester create a request to order from an outside vendor.  |   |   |  |
| Preconditions                             | User's identity has been authenticated. User is authorized to request chemicals. Chemical inventory database is online.   |   |   |  |
| Postconditions                            |   | 0 - 2   |   |  |
| Normal Course                             | <ol> <li>Request a Chemical from the Chemical Stockroom</li> <li>Requester specifies the desired chemical.</li> <li>System verifies that the chemical is valid.</li> <li>System lists containers of the desired chemical that are in the chemical stockroom</li> <li>Requester has the option to View Container History for any container.</li> <li>Requester selects a specific container or asks to place a vendor order (alternative course 1.1).</li> <li>Requester enters other information to complete the request.</li> <li>System stores request and e-mails it to chemical stockroom.</li> </ol>   |   |   |  |
| Alternative<br>Courses                    | <ul> <li>L.1 Request a Chemical from a Vendor (branch after step 5)</li> <li>L. Requester searches vendor catalogs for a chemical.</li> <li>2. System displays a list of vendors with available container sizes, grades, and prices.</li> <li>3. Requester selects a vendor, container size, grade, and number of containers.</li> <li>4. Requester enters other information to complete the request.</li> <li>5. System stores request and e-mails it to Buyer.</li> </ul>   |   |   |  |
| Exceptions                                | <ol> <li>1.0.E.1 Chemical is not valid (at step 2)</li> <li>1. System displays message: "That chemical does not exist."</li> <li>2. System asks Requester whether he wishes to request another chemical or to exist.</li> <li>3a. Requester asks to request another chemical.</li> <li>4a. System starts Normal Course over.</li> <li>3b. Requester asks to exit.</li> <li>4b. System terminates use case.</li> <li>1.0.E.2 Chemical is not commercially available (at step 5)</li> <li>1. System displays message: "No vendors for that chemical."</li> <li>2. System asks Requester whether he wishes to request another chemical or to exist.</li> <li>3a. Requester asks to request another chemical.</li> <li>4a. System starts Normal Course over.</li> <li>3b. Requester asks to exit.</li> <li>4b. System terminates use case.</li> </ol> |   |   |  |
| Includes                                  | UC-22 View Container History  |   |   |  |
| Priority                                  | High  |   |   |  |
| Frequency of Use                          | Approximately five times per week by each chemist, 100 times per week by each member of chemical stockroom staff.   |   |   |  |
| Business Rules                            | BR-28 Only staff who are authorized by their laboratory managers may request chemica  |   |   |  |
| Special<br>Requirements                   |   | ust be able to import a che of the supported chemical | mical structure in the standard encoded drawing packages. |  |
| Assumptions                               | 1. Imported chen  | Imported chemical structures are assumed to be valid. |   |  |
| Notes and<br>Issues                       | <ol> <li>Tim will find out whether management approval is needed to request a chemical<br/>on the Level 1 hazard list. Due date 1/4/03.</li> </ol>  |   |   |  |

#### 2- PLANTILLA PARA DESCRIPCIÓN PROBLEMA (Bittner)

Table 3-2. Problem Statement Template

| The problem of              | [describe the problem]                            |  |
|-----------------------------|---|--|
| Affects                     | [the stakeholders affected by the problem]        |  |
| The impact of which is      | [what is the impact of the problem?]              |  |
| A successful solution would | [list some key benefits of a successful solution] |  |

Table 3-3. The Problem Statement for a Customer Support System

| The problem of         | untimely and improper resolution of customer service issues  |
|------------------------|--|
| Affects                | our customers, customer support representatives, and service technicians,  |
| The impact of which is | customer dissatisfaction, perceived lack of quality, unhappy employees, and loss of revenue.   |
|                        | provide real-time access to a troubleshooting database by support representatives and facilitate dispatch of service technicians, in a time-ly manner, only to those locations that genuinely need their assistance. |

## 3- PLANTILLA PARA DESCRIPCIÓN PRODUCTO POR DESARROLLAR (Wiegers)

#### 2.1 Vision Statement

Write a concise vision statement that summarizes the long-term purpose and intent of the new product. The vision statement should reflect a balanced view that will satisfy the needs of diverse stakeholders. It can be somewhat idealistic but should be grounded in the realities of existing or anticipated markets, enterprise architectures, corporate strategic directions, and resource limitations. The following keyword template works well for a product vision statement (Moore 1991):

- For [target customer]
- Who statement of the need or opportunity]
- The [product name]
- Is [a product category]
- That [key benefit, compelling reason to buy or use]
- Unlike [primary competitive alternative, current system, or current business process],
- Our product [statement of primary differentiation and advantages of new product].

Here's a sample vision statement for the Chemical Tracking System project at Contoso Pharmaceuticals that was introduced in <a href="Chapter 2">Chapter 2</a>, with the keywords shown in boldface:

For scientists who need to request containers of chemicals, the Chemical Tracking System is an information system that will provide a single point of access to the chemical stockroom and to vendors. The system will store the location of every chemical container within the company, the quantity of material remaining in it, and the complete history of each container's locations and usage. This system will save the company 25 percent on chemical costs in the first year of use by allowing the company to fully exploit chemicals that are already available within the company, dispose of fewer partially used or expired containers, and use a single standard chemical purchasing process. Unlike the current manual ordering processes, our product will generate all reports required to comply with federal and state government regulations that require the reporting of chemical usage, storage, and disposal.