

**Cruz-Rabe Maternity &**

**General HospitalPharmaceutical Management System**

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1. **Overview**

Now in our society, technology is the most important advancement, necessity in bringing out progress we move along in this latest technology to impress our client such that to be implemented and give them opportunity to come up with a computer. Some of their branches are

The main goal of the project is to provide a good quality of a system that will help mainly the Pharmacist at the hospital to automate the paper work that will help them to provide a good quality and quick service to each patient.

* 1. **Scope**

The (CRPMS-PMS) Cruz-Rabe Maternity & General Hospital Pharmaceutical Management System will be managed by the head of pharmacy. The main functionality of the system is to automate the easy access of the medicine information e.g. its location and its inventory information. This system is only accessible within the organization.

The objectives of this system are the following:

* To provide an easy to understand interface for the user.
* To provide a fast and reliable transaction between the pharmacist and the patient.
* Easy access of the inventory of the medicine.
* Easy to search of the location of the medicine.
* It can only be accessed within the organization.
* User Friendly graphical user interface.

1. **References**

WIKI SITE: [**http://projects2.apc.edu.ph/wiki/index.php/CSPROJ2\_MI121\_Group\_4:\_Team\_Leader:\_Barbasa%2C\_Mark\_Ervin\_T.\_BSIT-MI121**](http://projects2.apc.edu.ph/wiki/index.php/CSPROJ2_MI121_Group_4:_Team_Leader:_Barbasa%2C_Mark_Ervin_T._BSIT-MI121)

**3 Definition and Acronyms**

**3.1 Definition:**

* **Use Case Diagram -** a software and system engineering term that describes how a user uses a system to accomplish a particular goal. A use case acts as a software modeling technique that defines the features to be implemented and the resolution of any errors that may be encountered.
* **Test Case** - is a set of conditions under which a tester will determine whether an application, software system or one of its features is working as it was originally established for it to do.
* **Entity Relational Diagram** - is a data model for describing the data or information aspects of a business domain or its process requirements, in an abstract way that lends itself to ultimately being implemented in a database such as a relational database. The main components of ER models are entities (things) and the relationships that can exist among them.
* **Work Breakdown Structure** – is a deliverable-oriented decomposition of a project into smaller components. A work breakdown structure element may be a product, data, service, or any combination thereof, A WBS also provides the necessary framework for detailed cost estimating and control along with providing guidance for schedule development and control.
* **Local Web Server -** is an information technology that processes requests via HTTP, the basic network protocol used to distribute information on the World Wide Web. The term can refer either to the entire computer system, an appliance, or specifically to the software that accepts and supervises the HTTP requests.

**3.2 Acronyms:**

**The following alphabetical contraction within the text appears of this standard:**

* CRPMS-PMS - Cruz-Rabe Maternity & General Hospital Pharmaceutical Management System
* UC – Use Case
* TC – Test Case
* WBS – Work Breakdown Structure
* ERD – Entity Relational Diagram
* LS – Local Server

**4 Software Quality Assurance Plan**

**4.1 Purpose**

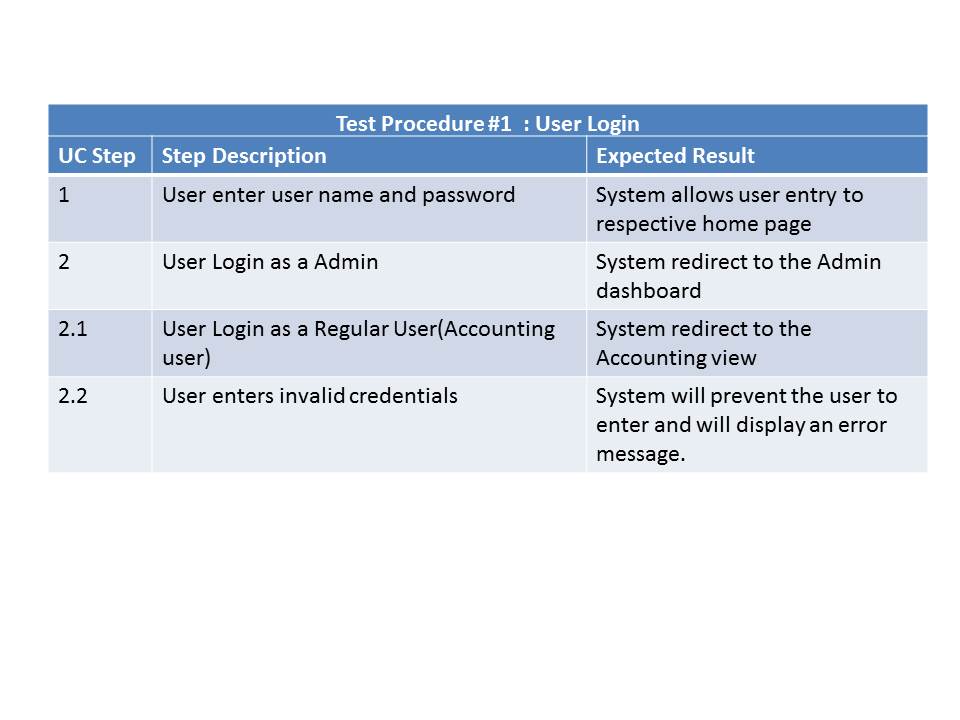
* The project aims to create an automated system of the CRPMS.
* The main purpose of the Project is to meet the all requirements of the Client.

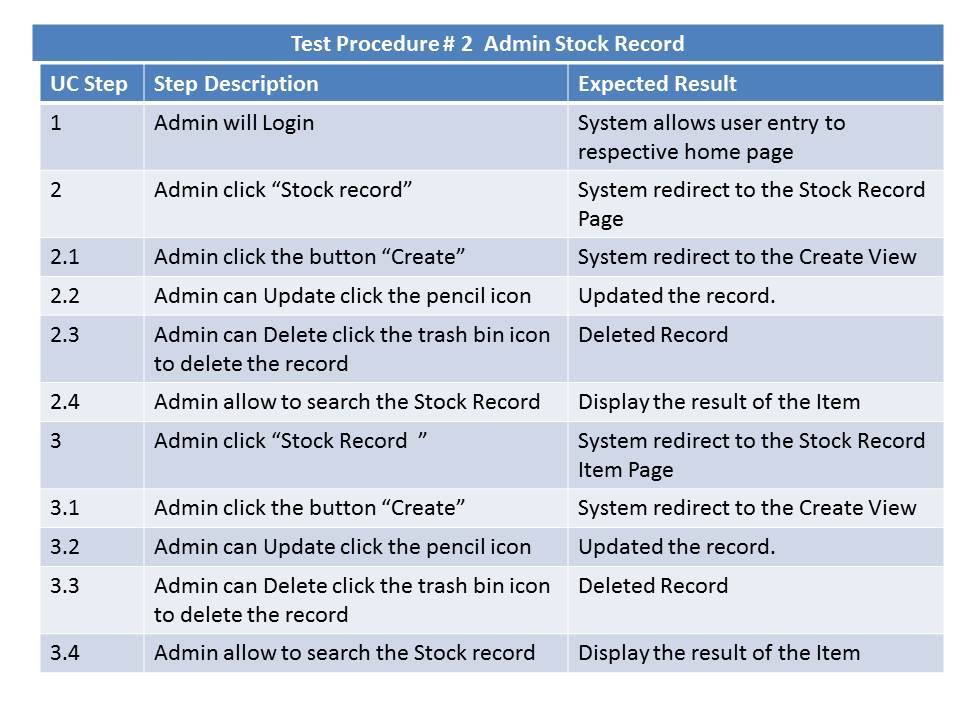
**4.2 Management**

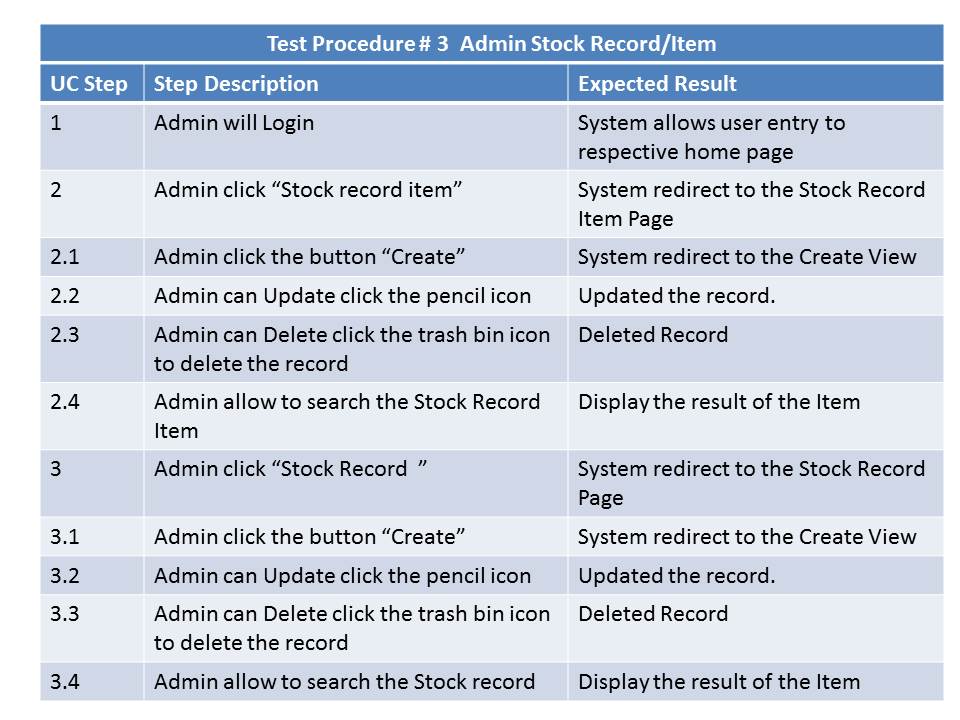
|  |  |  |
| --- | --- | --- |
| Members Names | Task | Responsibilities |
| Mark Kevin Navarro | * Team Leader | * Oversees all testing   staff and activities for all assigned applications   * Ensures all testing   standards are being met   * Serves as an escalation   point for issues involving testing   * Serves as a resource   and communication point for decisions about test schedule changes   * Provides weekly status   report that includes testing metrics   * Develop and document quality standard and process for all management process * Manage software quality assurance activities for the project |
| Flordeliza Calanno | * Quality Assurance Analyst | * Follows testing standards * Conduct the quality assurance, testing and gather findings |
| Cristine Ronario | * Quality Assurance Analyst | * Follows testing standards * Conduct the quality assurance, testing and gather findings |

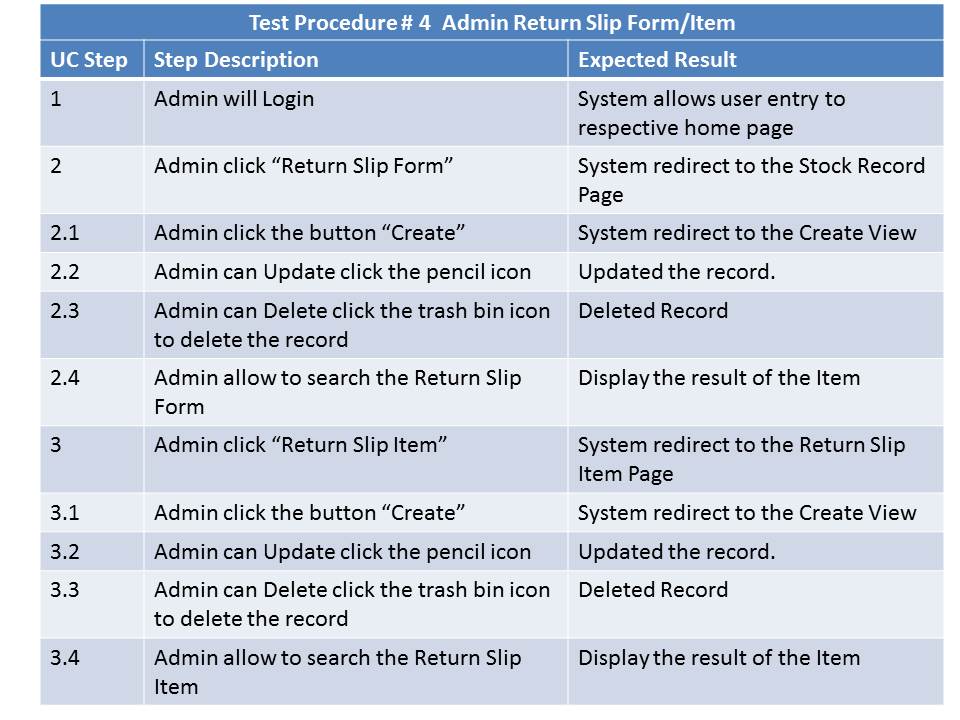
**4.3 Documentation**

Testing procedures









**4.4 Standards, practices, conventions, and metrics**

During this project many different documents will be made. This is done during the random checks held by the SQA team. Every document has to be approved by:

* + Quality Assurance Analyst (Tester)
  + The leader of the responsible team
  + A member of the SQA team

**4.5 Reviews and audits**

Audit Reviews are possible to be scheduled or unscheduled. In Scheduled Reviews, SQA team should generate and maintain Audit Schedule. In every done tasks for each phase of the development, audit will occur and all the results of it will be discussed by the person whom is responsible for the tasks. For unscheduled Audit, this will be perform randomly or unannounced to make sure that the standards are being followed based on what things have been discussed for Scheduled Audits. And just like in the scheduled audit the persone who is responsible for the taskst is the one who will discussed for that deliverable of the task.

**4.6 Test**

This section shall

a) Describe the practices and procedures to be followed for reporting, tracking, and resolving problems

Identified in both software items and the software development and maintenance process;

b) State the specific organizational responsibilities concerned with their implementation

**Test Items:**

* User Management Module
* Stocks Record Module
* Stocks Record Item Module
* About Medicine Module
* Stock Issue Form Module
* Stock Issue Item Module
* Return Slip Form Module
* Return Item Module

**Feature that to be tested:**

* **User Management Module** 
  + User Interface
  + Functionality
  + Security
  + User Accessibility
* **Stocks Record Module (admin side)**
  + User Interface
  + Functionality
  + CRUD Function
* **Stocks Record Item Module**

**(admin side)**

* + User Interface
  + Functionality
  + CRUD Function
* **About Medicine Module (admin side)**
  + User Interface
  + Functionality
  + CRUD Function
* **Stock Issue Form (admin side)**
  + User Interface
  + Functionality
  + CRUD Function
* **Stock Issue Item Module (admin side)**
  + User Interface
  + Functionality
  + CRUD Function
* **Return Slip Form Module**

**(admin side and user side)**

* + User Interface
  + Functionality
  + CRUD Function
* **Return Item Module**

**(admin side and user side)**

* + User Interface
  + Functionality CRUD Function

**4.7 Problem reporting and corrective action**

When a problem in an approved Configuration Item is detected, it has to be solved. There are several kinds of problems:

**Document problems:**

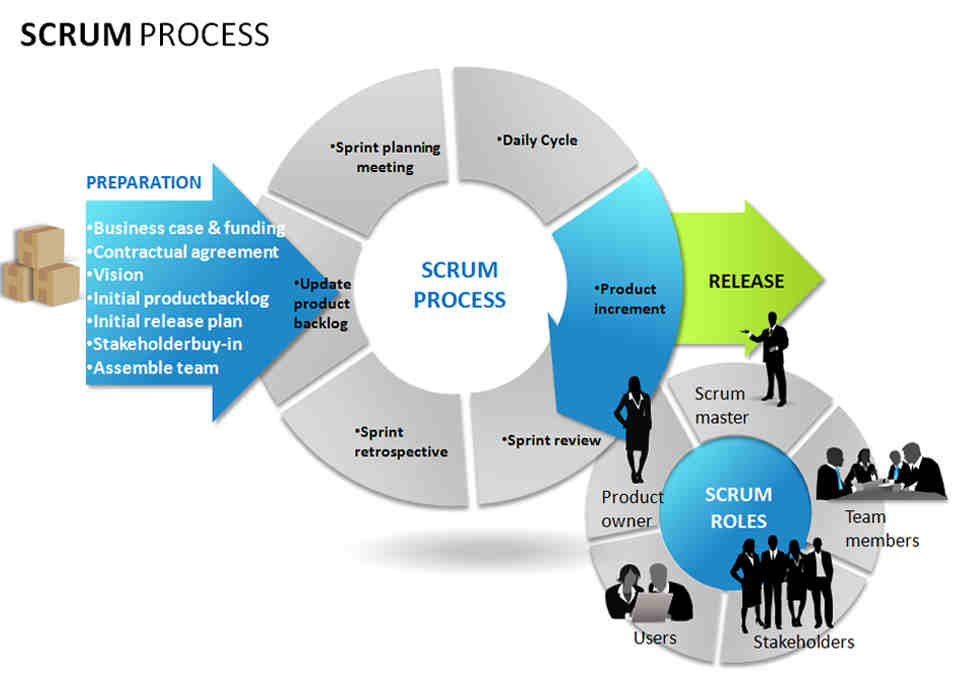
* Noncompliance with other project documents.
* Incompleteness.
* Errors.

**Code problems:**

* Wrong functionality.
* Noncompliance with coding or commentary standards.
* Database Conflicts

**4.8 Tools, techniques, and methodologies**

* **Scrum Methodology** - is part of the agile movement. Agile is a response to the failure of the dominant software development project management paradigms (including waterfall) and borrows many principles from lean manufacturing. In 2001, 17 pioneers of similar methods met at the Snowbird Ski Resort in Utah and wrote the Agile Manifesto, a declaration of four values and twelve principles. These values and principles stand in stark contrast to the traditional Project Manager’s Body of Knowledge (PMBOK). The Agile Manifesto placed a new emphasis on communication and collaboration, functioning software, team self-organization, and the flexibility to adapt to emerging business realities.



**Software Tools and Techniques:`**

**Programming Languages**

- PHP

- HTML5

- MySQL

**• Specific Software**

- Yii Framework

- Phpmyadmin

**• Web Server Application**

- Apache

- MySQL

**• Operating System**

- Windows 7 and Windows 8

**• Other Software/Applications**

- XAMPP

- Notepad++

- Sublime

- Browser (Mozilla Firefox, Google Chrome)

* **Hardware Environment**

- Desktop Computers/Laptop

**4.9 Code control**

The methods and facilities that used to maintain, store, secure and document and controlled version of the CRMGH-PMS during all phases of the software life cycle are the following: **Git**, **Github**, **Code.Google.**

**The following should be available:**

* For all the authorized users, documentation of the project should be accessible and it should be restricted so that unauthorized users can’t access this said documents.
* Documents with different kinds of version that are for authorized users are also accessible and some files shouldn’t be locked in the first place.

**4.10 Media control**

The methods that will be used in media control are the following:

a. Desktop Computers/Laptops should be encrypted during all phases of the software life cycle so that unauthorized access of the devices will only be limited to the developers/quality assurance people.

b. Authorized users shouldn’t share their passwords to other so that unauthorized access of the devices will be prevented.

**4.11 Supplier control**

The external software components we use are the following

* Microsoft Project – Work Breakdown Structure
* Microsoft Visio – Diagrams
* MySQL Workbench – Entity Relational Diagram
* Yii Framework – Development of the System
* Microsoft Word – Documents
* phpmyadmin – Database Repository
* Xampp – Local web server

**4.12 Records collection, maintenance, and retention:**

This section identifies the SQA documentation that would be retained or for archival purposes.

|  |  |  |
| --- | --- | --- |
| Categories | Records/Document Types | Retention Time |
| Project Data | QA Project Plan | For Archival after 1 year |
| Test Plan / Test Cases | For Archival after 1 year |
| Sample collection/measurement records | For Archival after 1 year |
| Sample Handling & Custody Records | For Archival after 1 year |
| Raw Data | Project data (sample, QC and calibration) including data entry forms | For Archival after 1 year |
| Data Reporting | System Monitoring Reports  (DFDs, for work flow) | For Archival after 1 year |
| Progress reports | For Archival after 1 year |
| Project data/summary reports | For Archival after 1 year |
| Inspection Report | For Archival after 1 year |
| Data Management | Data management plans/flowcharts | For Archival after 1 year |
| Data algorithms | For Archival after 1 year |
| Entity Relational Diagrams (ERD) | For Archival after 1 year |
| Quality Assurance | Control charts | For Archival after 1 year |
| Data quality assessments | For Archival after 1 year |
| QA reports/corrective action reports | For Archival after 1 year |
| Response | For Archival after 1 year |
| Performance Evaluation Samples | For Archival after 1 year |
|  |  |

**4.14 Risk management**

Throughout the project phase, all possible risks and problems that have been encountered should be addressed during the team meeting. All risks/problems that are been encountered should be described clearly and discussed thoroughly and a set of things that have been done before and after the risks should be documented in proper format. And also possible risks that have been discussed should be listed together with it's possible solution.