

CRUZ-RABE PHARMACY SYSTEM

Cruz-Rabe Maternity and General Hospital

Developer: Bueno | Rosales

MCSPROJ2 @ Asia Pacific College 2016 – 2017

Project Professor:

- Mr. Manuel Sebastian Sanchez MSYADD1 &MCSPROJ2 Class Professor

Project Consultant:

- Dr. Manuel Calimlim Jr. SOCIT Professor
- Mr. Alfredo Calimbo SOCIT Professor

Project Adviser:

- Mr. Jayvee Cabardo Director, Education Technology

Project Team:

- Carl Dominique Bueno Project Manager/Developer
- Glen Roy Rosales Project Analyst/Documenter

Client Information:

Company/Organization Name:	Cruz-Rabe Maternity and General Hospital
Project Name:	Cruz-Rabe Pharmacy System
Primary Contact Person:	Carmelita Buenaflor
Position:	Chief Pharmacists

Health Facility Detailed Information:

ACCREDITATION NO:	H92007290
PMCC NO:	313634
INSTITUTION NAME:	Cruz-Rabe Maternity and General Hospital
ROAD NAME:	37 Gen. Luna Street
BARANGAY:	Tuktukan
MUNICIPALITY:	Taguig City
PROVINCE:	Metro Manila (SOUTH)
REGION:	NCR (SOUTH)
CATEGORY:	Level 2
CLASSIFICATION:	Private

I. Introduction

Project Context

In order to ensure patient's safety, cost effective processes and well managed admission on managing medical services, through preventing clinical errors and use resources efficiently. Therefore, business process should have a sufficient tool which is an automation of "Pharmacy System." Transactions that are processed in different factors including; IN and OUT patient order entry, dispensing orders, pharmacy inventory and purchasing management will stand-alone by providing innovative way of service. The client Cruz-Rabe Maternity General Hospital uses the latest technology enabling complete control to improve medical management and to bring satisfaction to their clients in terms of professional service.

Success Factors

We can assume that the system will be feasible if we meet the following requirements:

- If the system seems to be helpful when hospital transactions (pharmacy requests) are now processed in just a few moments.
- If the results produced are accurate and reliable for the patients.
- If the pharmacy records can be tracked down easily from its database.
- If less resources are utilized but service would improve.

We can assume that the system will be successful for a long term if we meet the following requirements:

- If the system is useful to patients and hospital staffs in terms of service, performance and satisfaction.
- If it will generate enough revenue to support the maintenance of the system.

Business Risk

RI-1: Might take in critics since the pharmacy department will be adapting changes towards its business transactions.

RI-2: It will require equipment and services in order to produce the system. This means, the organization need to invest in this project as there is a possibility to make changes in certain aspects such as its maintenance and security.

Purpose and Description

A pharmacy within a hospital case, wherein there will only be IN and OUT patients for pharmacy request entry.

The system will have the following:

- Order Prescription
- Patient History Records
- Stock Inventory for Medicine and Supplies Directory
- Department Directory
- Doctor Directory

Purpose and Success Factors

P1: Make the processing of prescriptions faster and reliable.

P2: Lessen the loss of data of the existing and upcoming pharmacy records.

P3: Increase efficiency of work in input of information and processing of requests by the pharmacists upon implementation.

S1: The pharmacists are able to maximize productivity with the use of the Pharmacy Request System (PRS).

S2: Receive a positive feedback from the client regarding the increase average amount of work done by the Pharmacy Department.

Objectives

General Objectives

- Paperless Transactions System (PTS)
- Automation of Pharmacy Request System
- Convenient way of discharging patients.

Specific Objectives

- Eliminate mistakes caused by manual steps and workarounds
- Pharmacy transactions will be generated electronically for accessibility
- Pharmacy system will be more reliable and convenient
- Less tedious on data mining and documentation
- Save and track relevant information in real time.

II. Review of Related Literature/Systems



Omnicell is recognized as a leading provider of comprehensive, technologically advanced automation that enables health care facilities to acquire, manage, dispense, and deliver medications and supplies more effectively. Omnicell automation is used from the point of entry into the hospital through the central pharmacy, nursing units, operating room, procedural areas, and patient bedsides – as well as in long-term care sites. For over 20 years the mission of Omnicell has focused on improving the medication and supply distribution process.

More than 4,000 acute care customers worldwide have used Omnicell's medication automation, supply chain, and analytics solutions to improve efficiency, reduce errors, and lower costs. Omnicell non-acute care solutions, including the MTS brand, enable approximately 7,000 institutional and retail pharmacies worldwide to optimize productivity and control costs. Moreover, the innovative medication adherence packaging solutions can reduce costly hospital readmissions.

At Omnicell, delivering our technology is just the beginning. We are also committed to delivering the best customer experience. To ensure our customers gain the most utility from their Omnicell systems, we offer a suite of analytics software, a comprehensive training and education program, and first-rate customer support. Omnicell has been recognized with KLAS award every year since 2006.

Key product lines:

- Central pharmacy automation
- Medication management systems
- Supply management systems
- Business analytics
- Medication adherence packaging



PioneerRx Pharmacy System is a windows-based ground-breaking pharmacy software. Cutting edge features include the Apple iPad Signature Capture, Email/Text Customer Notification, Hard Copy Imaging Workflow and more.

Developed with the experience of over 30 years of pharmacy software development and support, PioneerRx was built from scratch to provide the pharmacy community with a solution that can grow as the industry changes for the next 40 years. These features are designed to provide speed, simplicity, consistency and flexibility. However, our ultimate goal of development is to help pharmacies make more money.

Many features and benefits of PioneerRx that can help improve your pharmacy:

- Mobile Delivery offers an easy, secure and fun way for drivers to complete transactions, take payments, and store patient signatures while on a delivery.
- Advanced Searching throughout PioneerRx advanced search grids offer user-friendly options for pulling data such as custom layouts, fixed rows and columns, sorting, filtering and exporting.
- Apple iPad Electronic Signature Capture. Prepare for audits and impress your customers with the latest technology by capturing signatures on your Apple iPad or iPad Mini at the Drive Thru.
- Prescriber Add/Edit from NPI/DEA Database. PioneerRx supports seamlessly adding prescribers or updating their information from the National Provider Registry and DEA database. Never wait for hours to get a DEA number again.
- Integrated Pre/Post Edit. Pre and post edits are included in your PioneerRx software. Discover opportunities for increased payment due to errors such as Package Size, DAW, Obsolete NDC, and more.
- RxNotify. Send email, text and IVR messages when prescriptions are ready. Provide your customers with great service and keep your will call bins empty by using RxNotify.
- Modern Windows System. PioneerRx was built from scratch to take advantage of the capability and strengths of a modern Windows environment, including dashboard screens and Microsoft's ribbon bar navigation.

III. Technical Background

Major Features:

- F1:** Convenient way of purchasing Medicine and Supplies within the pharmacy.
- F2:** Can easily do inventory check for tracking down changes on stocks.
- F3:** Discharging patients with electronic records.
- F4:** Checks the validation and availability of the requests.
- F5:** Secures the authorization of the pharmacists and authorized personnel to do the process.
- F6:** Sends the information throughout the other departments electronically.

IV. Methodology, Results and Discussion

- Requirements Analysis
- Requirements Documentation
- Design of Software, Systems, Product, and/or Processes
- Development and Testing, where applicable
- Description of the Prototype, where applicable
- Implementation Plan (Infrastructure/Deployment) where needed
- Implementation Results, where applicable
- Include discussion on conceptual design / system architecture/ block diagrams and algorithms

IV. Conclusions and Recommendations

V. Appendices

Event Table

EVENT	TRIGGER	SOURCE	USE CASE	RESPONSE	DESTINATION
GIVES PRESCRIPTION	To give prescription	Doctor	Give prescription	Gives prescription	Nurse, Patient
PROCESSING PRESCRIPTION	To check the prescription for validity	Patient	Present prescription	Presenting prescription	Pharmacist
INVENTORY CHECKING	To check availability of order	Pharmacist	Verify if the prescription is available	Checking of prescribed order	Pharmacy (Inventory) System
CONFIRMATION OF ORDER	To confirm order for request	Pharmacy System	Process the prescription request	Confirms order and prints out request slip	Pharmacist, Pharmacy System
BILL PAYMENT	To pay the corresponding amount of order request	Patient	Clearance for dispensing order	Clearance for dispensing order	Billing and Cashier
CONFIRMATION OF PAYMENT AND PURCHASE	To validate receipt for releasing	Billing and Cashier/ Patient	Presenting receipt for dispensing of order	Issues receipt and presenting to pharmacist for order release	Billing and Cashier/ Patient

Use Case – Full Definition

Use Case Name:	Will present prescription
Scenario:	Prescription Processing
Triggering Event:	To have proof of Prescribed Order
Brief Description:	Patient will present the prescription to the Pharmacist
Actors:	Patient
Related Use Cases:	
Stakeholders:	Pharmacist
Preconditions:	Patient will get the prescription from the Doctor
Post Conditions:	Pharmacist will check the prescription
Flow of Activities:	<div style="display: flex; justify-content: space-between;"> Actor System </div> <ol style="list-style-type: none"> 1. Patient will give the prescription 1.1

Use Case Name:	To present receipt to get order
Scenario:	Confirmation of payment
Triggering Event:	Showing of receipt to the pharmacist
Brief Description:	Patient will give the receipt to the pharmacist as a proof he/she paid
Actors:	Patient
Related Use Cases:	To release a receipt to the patient
Stakeholders:	Patient, Pharmacist
Preconditions:	Patient will pay his/her bills
Post Conditions:	Accounting will issue a receipt to the patient
Flow of Activities:	<div style="display: flex; justify-content: space-between;"> Actor System </div> <ol style="list-style-type: none"> 1. Patient will show receipt 2. Pharmacist will check the receipt

Use Case Name:	To release a receipt to the patient
Scenario:	Confirmation of payment
Triggering Event:	Issuing receipt as proof of payment
Brief Description:	Accounting will issue a receipt to the patient
Actors:	Accounting
Related Use Cases:	For order to be release
Stakeholders:	Patient, Pharmacist
Preconditions:	Patient will pay his/her bills
Post Conditions:	Accounting will issue a receipt to the patient
Flow of Activities:	<div style="display: flex; justify-content: space-between;"> Actor System </div> <ol style="list-style-type: none"> 1. Patient will be told to pay his bills 2. Accounting will issue a receipt

Use Case Name:	For order to be release
Scenario:	Bill payment
Triggering Event:	To pay bills of order
Brief Description:	Patient will pay his/her order
Actors:	Patient
Related Use Cases:	To print out confirmation
Stakeholders:	Pharmacist
Preconditions:	Pharmacist will tell the patient to pay his/her order
Post Conditions:	Patient will pay his/her order
Flow of Activities:	<div style="display: flex; justify-content: space-between;"> Actor System </div> <ol style="list-style-type: none"> 1. Patient will be told to pay bills

Use Case Name:	To print out confirmation				
Scenario:	Confirmation of Order				
Triggering Event:	To confirm the order and prints a quotation				
Brief Description:	Pharmacist will confirm the order and prints a quotation				
Actors:	Pharmacist				
Related Use Cases:	To tell the pharmacist				
Stakeholders:	Patient, Pharmacist				
Preconditions:	Patient will give the prescribed order				
Post Conditions:	Pharmacist will print order confirmation				
Flow of Activities:	<table> <tr> <th>Actor</th><th>System</th></tr> <tr> <td>1. Pharmacist will confirm Order of the patient</td><td>1.1. System will print order information</td></tr> </table>	Actor	System	1. Pharmacist will confirm Order of the patient	1.1. System will print order information
Actor	System				
1. Pharmacist will confirm Order of the patient	1.1. System will print order information				

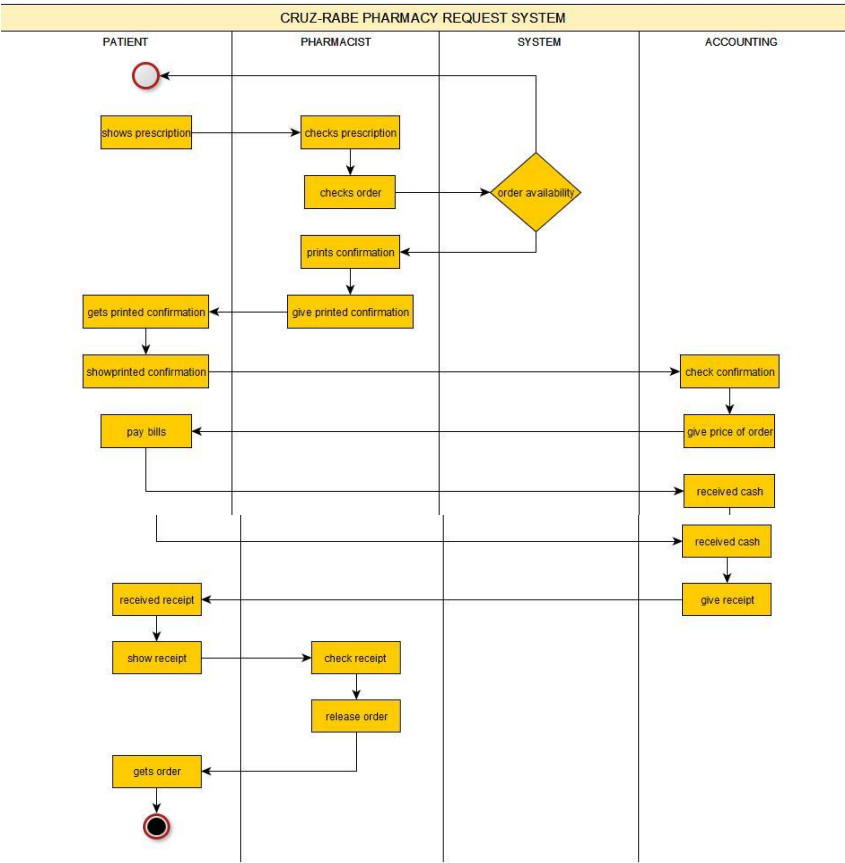
Use Case Name:	To tell the pharmacist				
Scenario:	Confirmation of Order availability				
Triggering Event:	To tell if prescribed order is available				
Brief Description:	System will confirm order prescribed				
Actors:	System				
Related Use Cases:	To find if order is available				
Stakeholders:	Patient, Pharmacist				
Preconditions:	Pharmacist will check the prescribed order				
Post Conditions:	System will check if prescribed order is available				
Flow of Activities:	<table> <tr> <th>Actor</th><th>System</th></tr> <tr> <td>1. System will check the prescription given the by Patient</td><td>1.1. System will check order availability</td></tr> </table>	Actor	System	1. System will check the prescription given the by Patient	1.1. System will check order availability
Actor	System				
1. System will check the prescription given the by Patient	1.1. System will check order availability				

Use Case Name:	To find if order is available				
Scenario:	Inventory Checking				
Triggering Event:	Checking of order availability				
Brief Description:	Pharmacist will check the prescription given by the patient				
Actors:	Pharmacist				
Related Use Cases:	Will present prescription				
Stakeholders:	Patient				
Preconditions:	Patient will give the prescription to the pharmacist				
Post Conditions:	Pharmacist will check the prescription				
Flow of Activities:	<table> <tr> <th>Actor</th><th>System</th></tr> <tr> <td>1. Pharmacist will check the prescription given the Patient</td><td>1.1. System will check order availability</td></tr> </table>	Actor	System	1. Pharmacist will check the prescription given the Patient	1.1. System will check order availability
Actor	System				
1. Pharmacist will check the prescription given the Patient	1.1. System will check order availability				

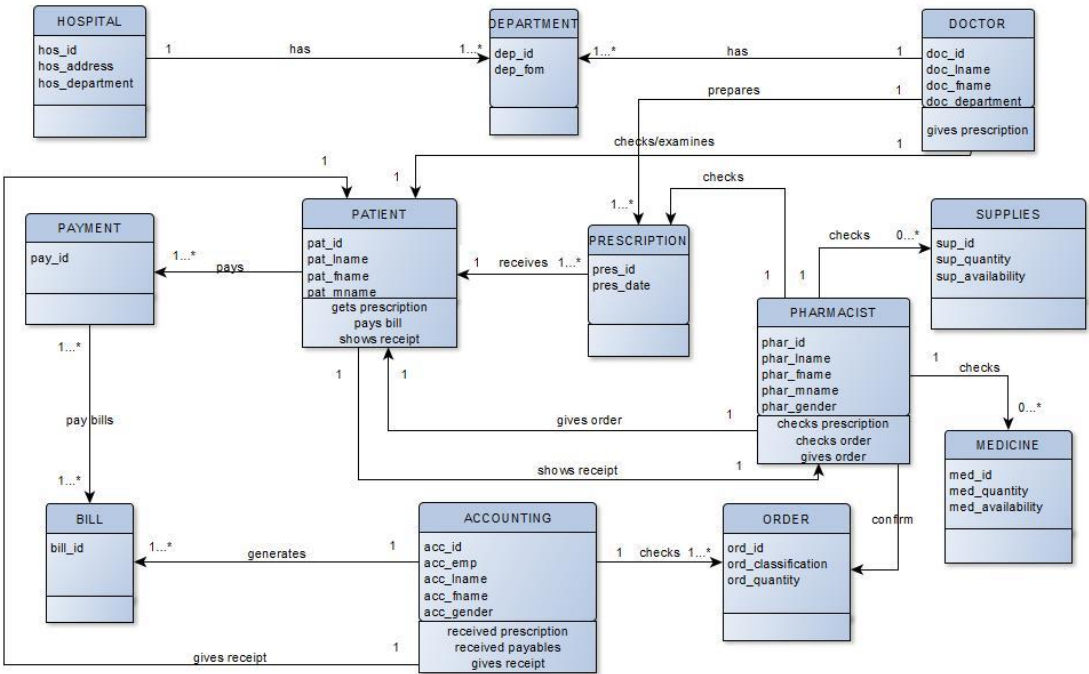
Use Case Name:	For patient to receive the order								
Scenario:	Releasing of order								
Triggering Event:	Release of order to the patient								
Brief Description:	Pharmacist will give the order to the patient								
Actors:	Pharmacist								
Related Use Cases:	To present receipt to get order								
Stakeholders:	Pharmacist								
Preconditions:	Pharmacist will check the receipt								
Post Conditions:	Pharmacist will release the order of the patient								
Flow of Activities:	<table> <tr> <th>Actor</th><th>System</th></tr> <tr> <td>1. Pharmacist will check the receipt</td><td></td></tr> <tr> <td>2. Pharmacist release the order of the patient</td><td></td></tr> <tr> <td>3. Patient will receive his/her order</td><td></td></tr> </table>	Actor	System	1. Pharmacist will check the receipt		2. Pharmacist release the order of the patient		3. Patient will receive his/her order	
Actor	System								
1. Pharmacist will check the receipt									
2. Pharmacist release the order of the patient									
3. Patient will receive his/her order									

UML Diagram

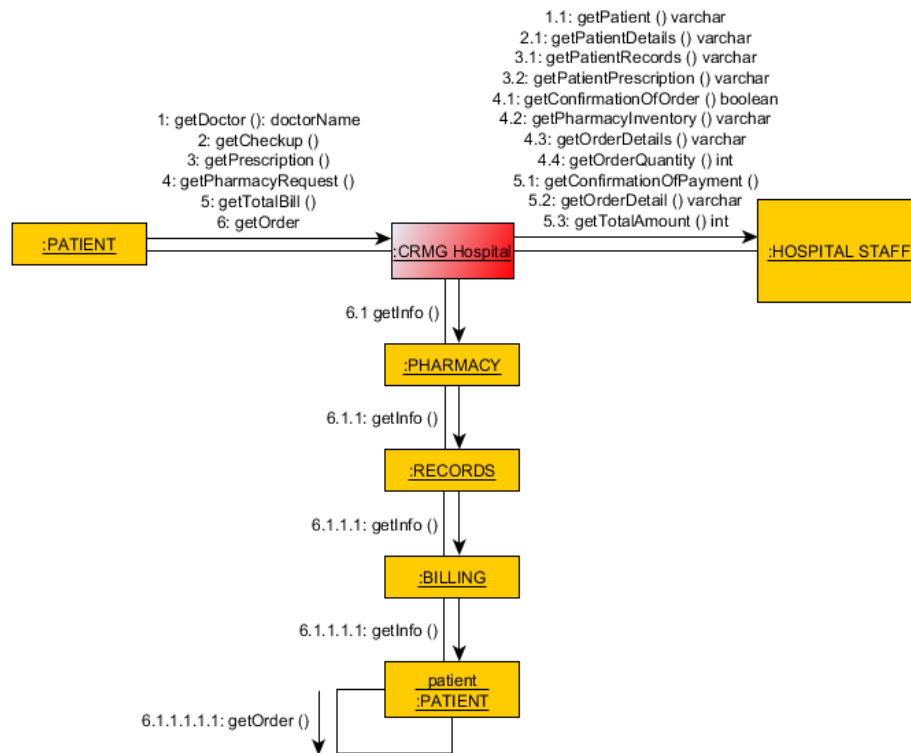
Activity Diagram



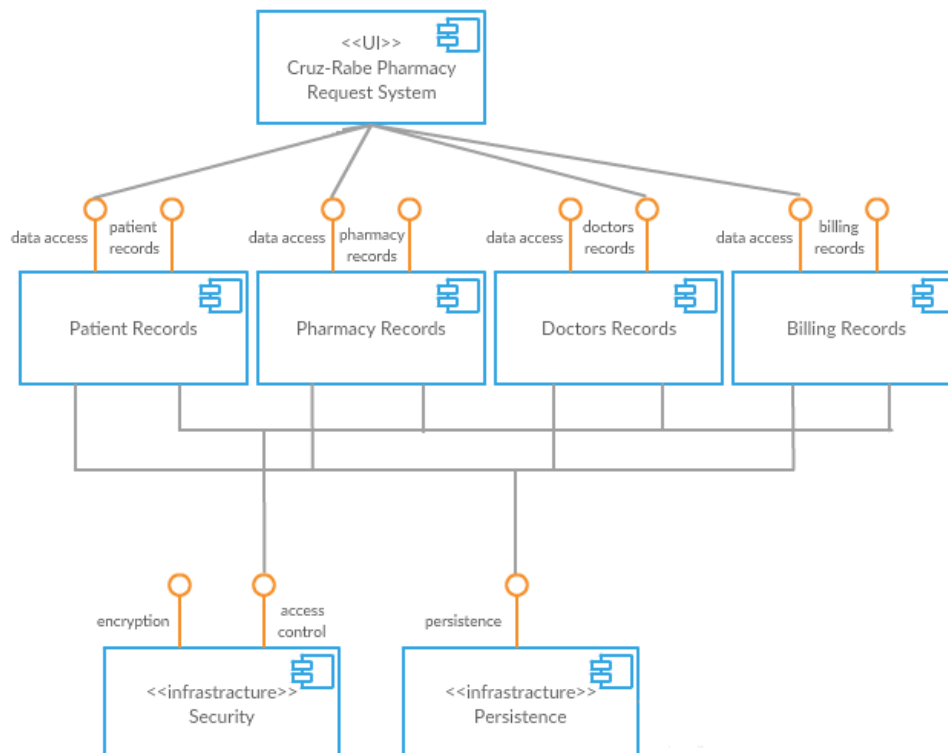
Class Diagram



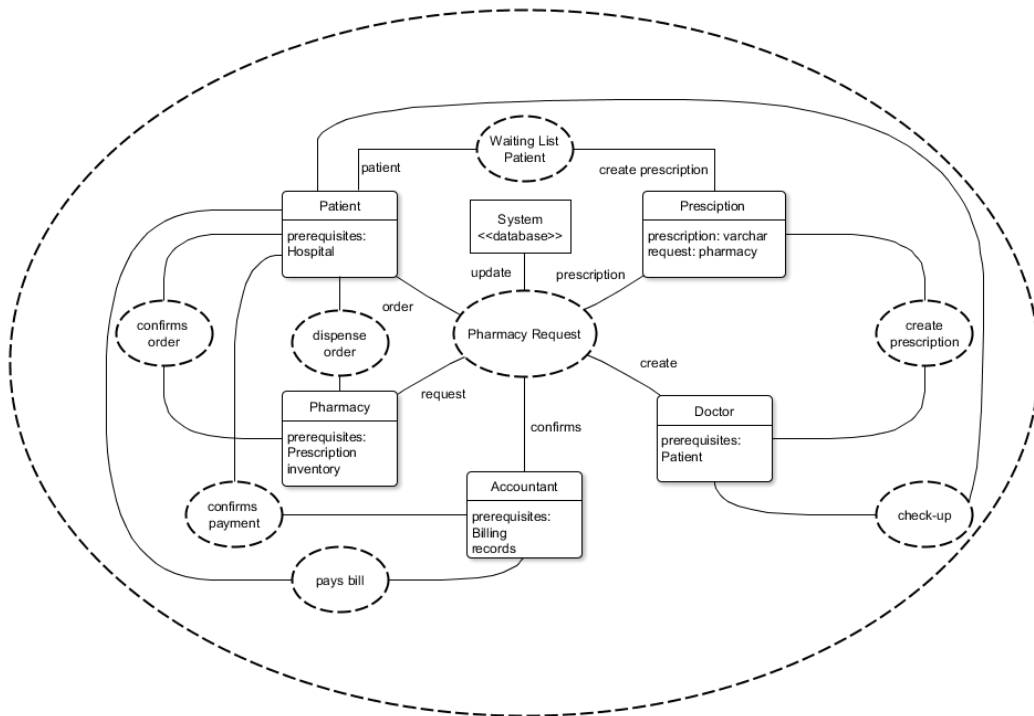
Communication Diagram



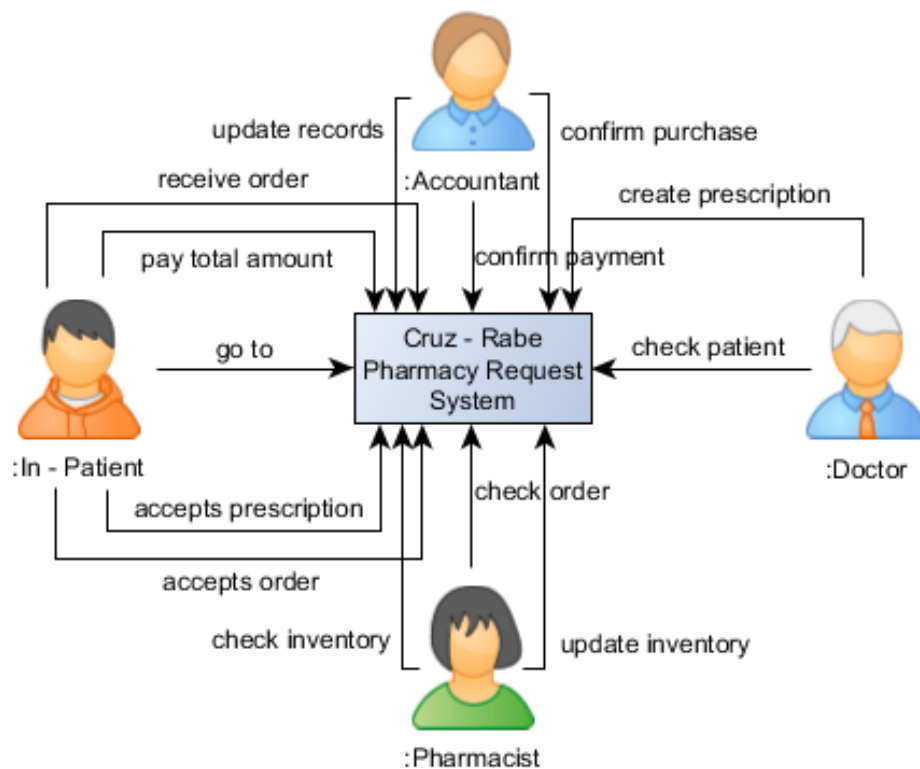
Component Diagram

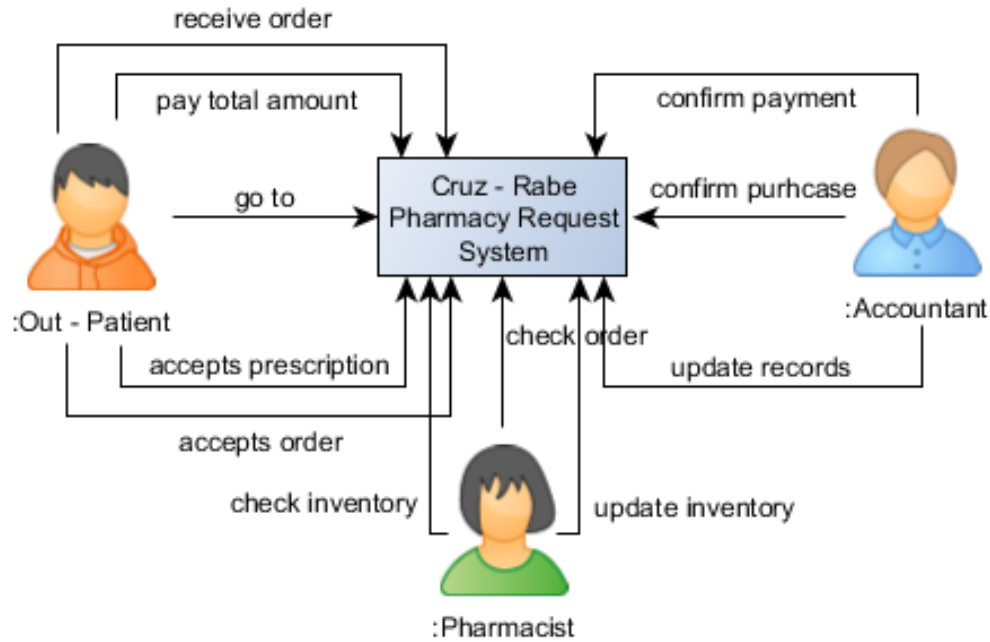


Composite Structure Flow Diagram

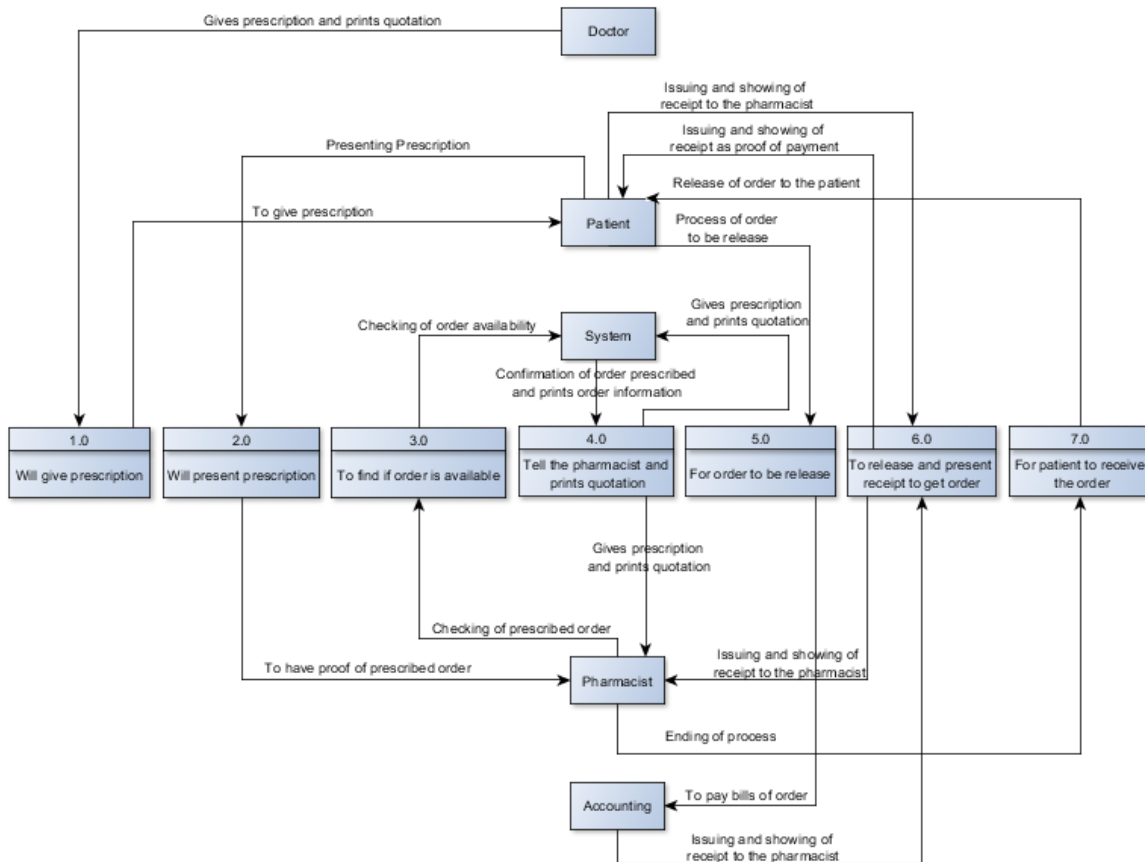


Context Flow Diagram

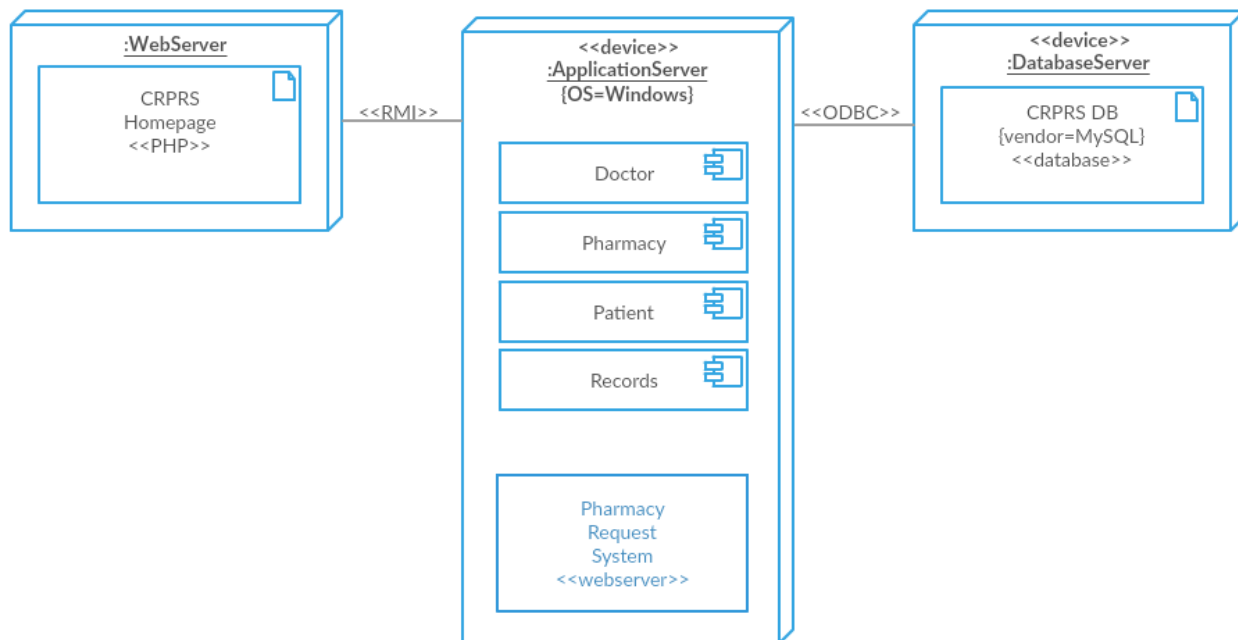




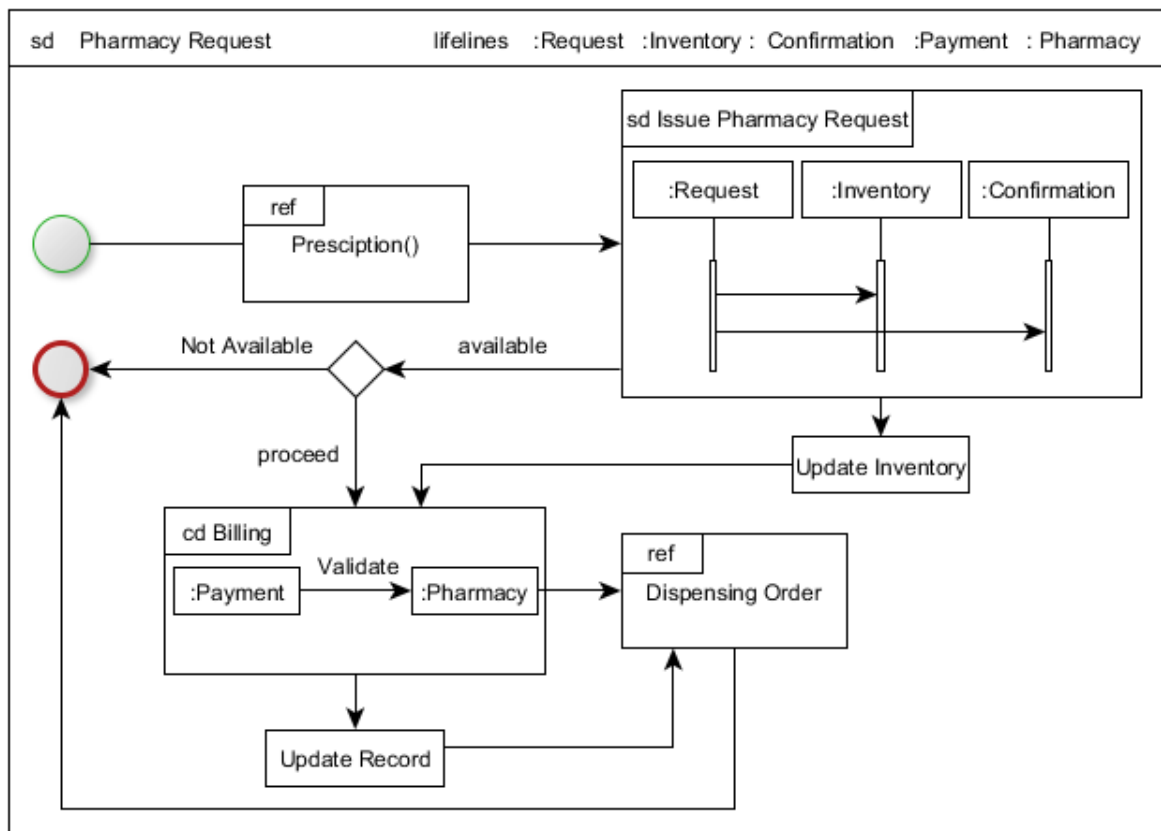
Data Flow Diagram



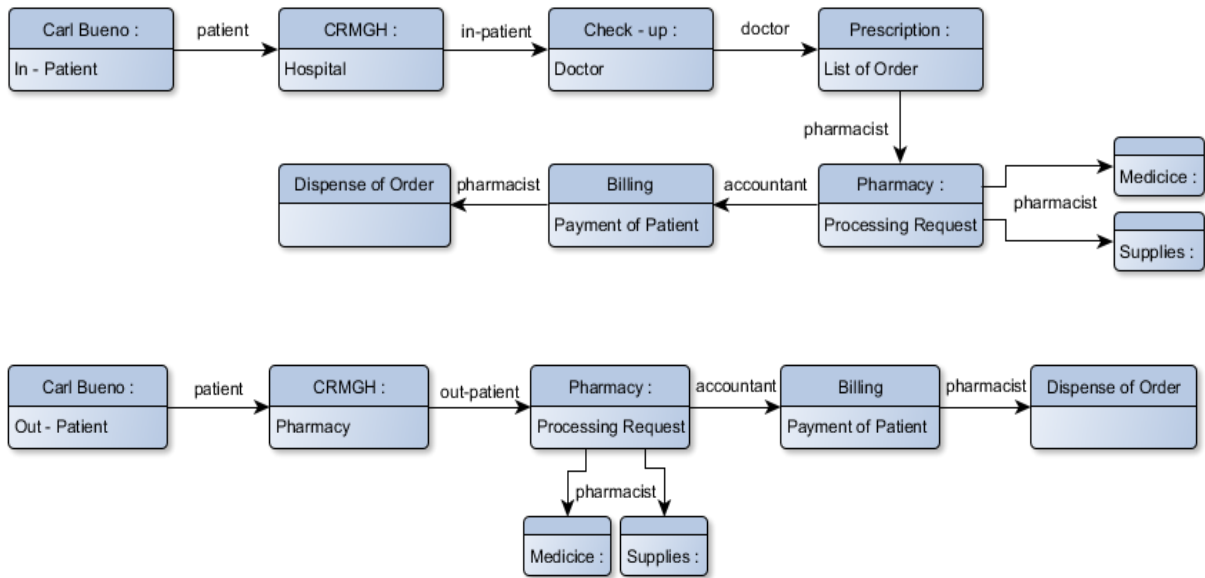
Deployment Diagram



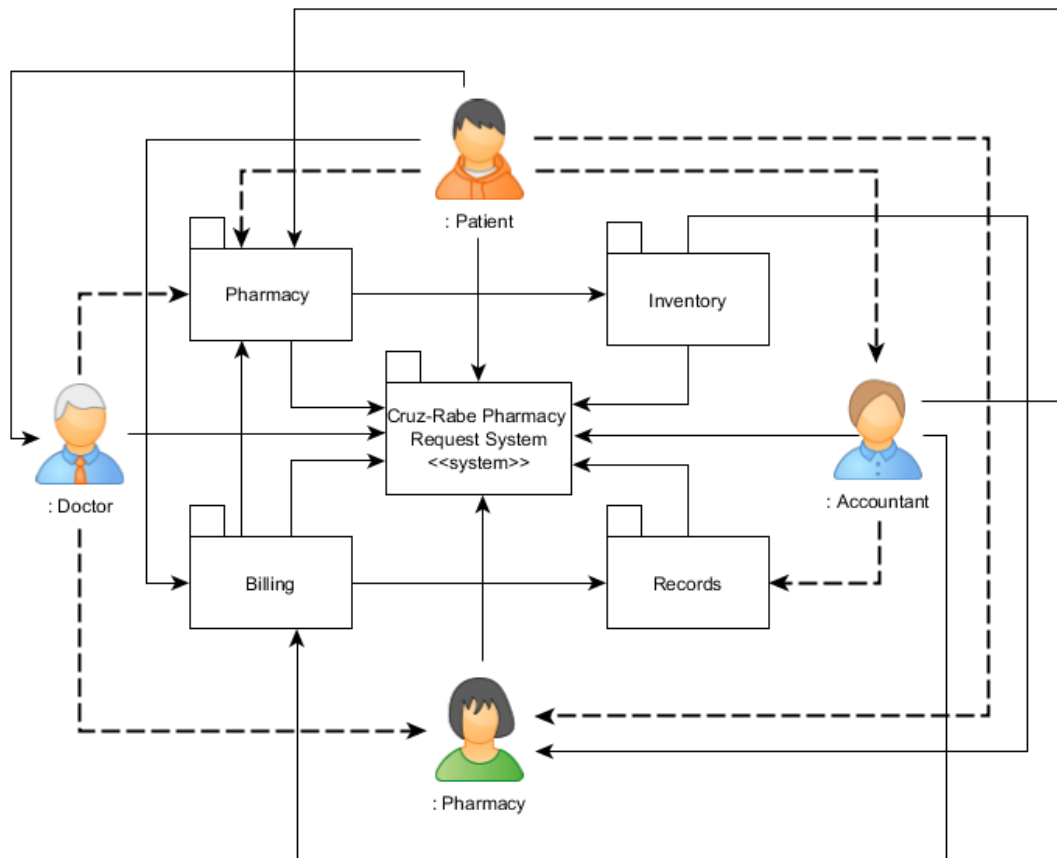
Interaction Overview Diagram



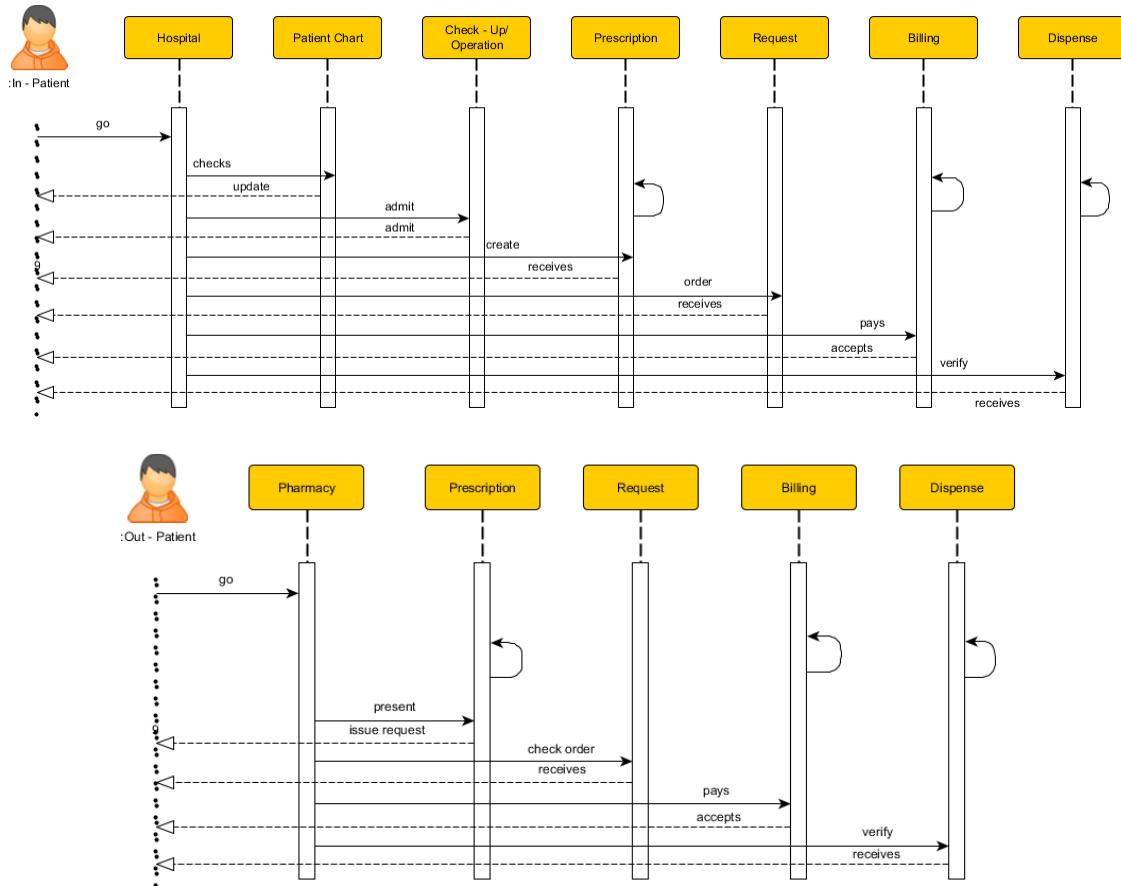
Object Diagram



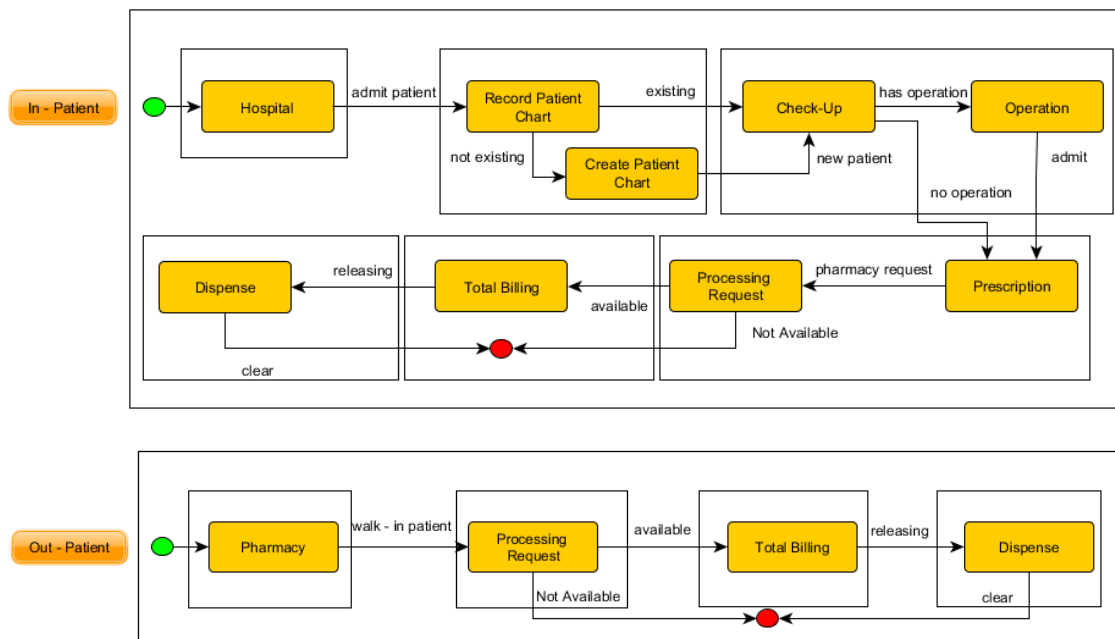
Package Diagram



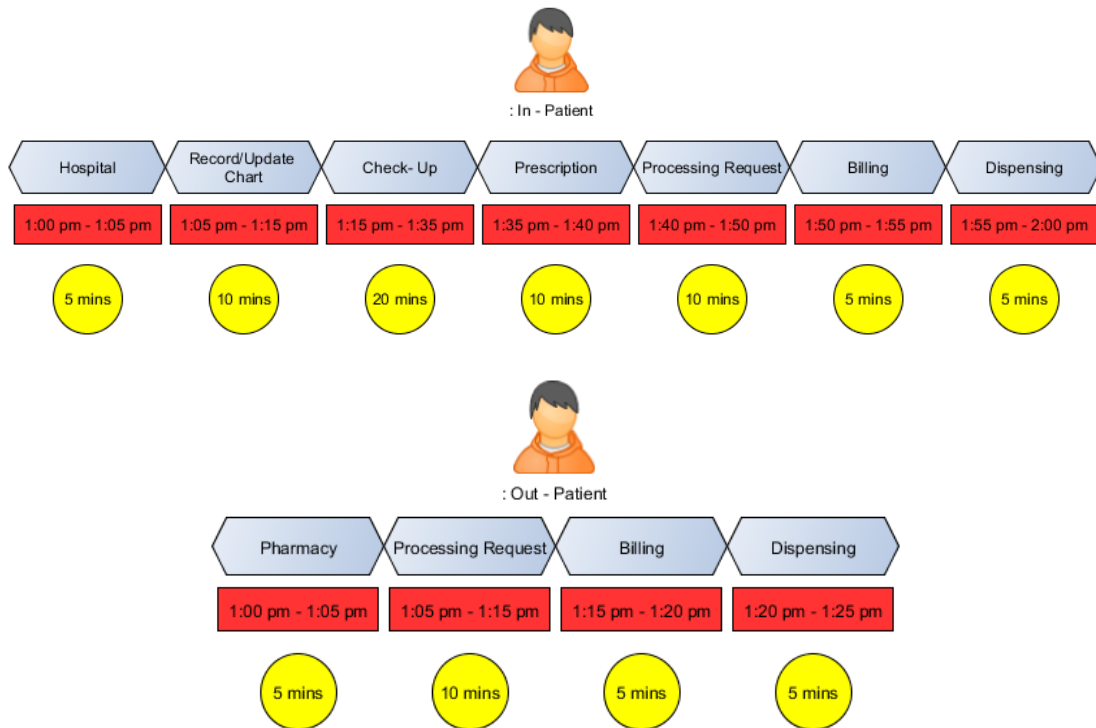
Sequence Diagram



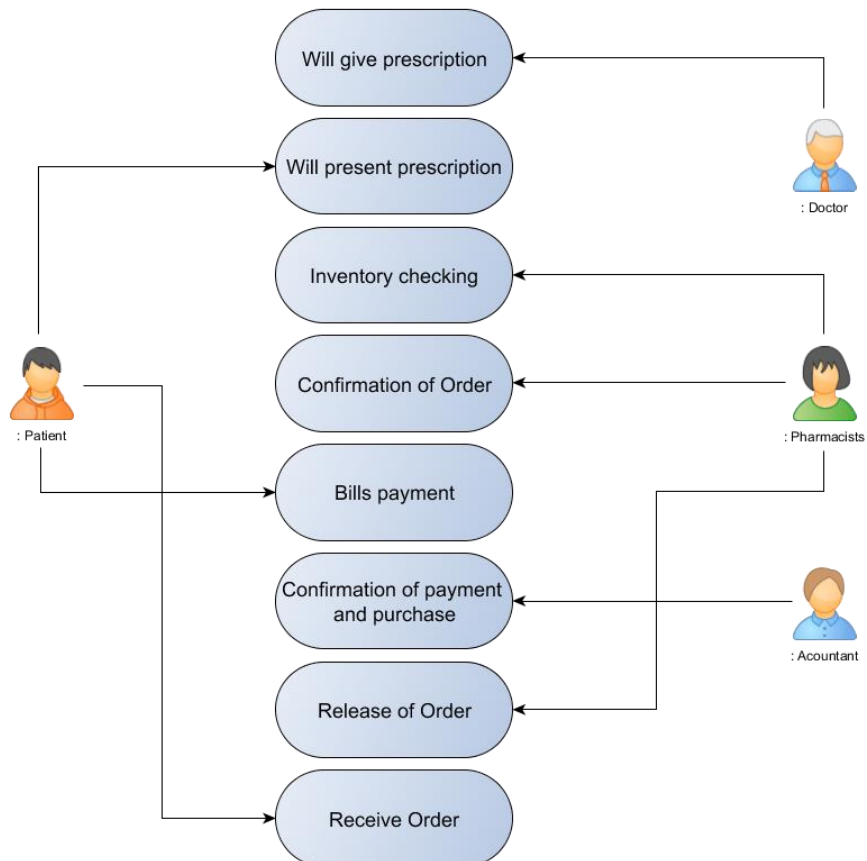
State Machine Diagram



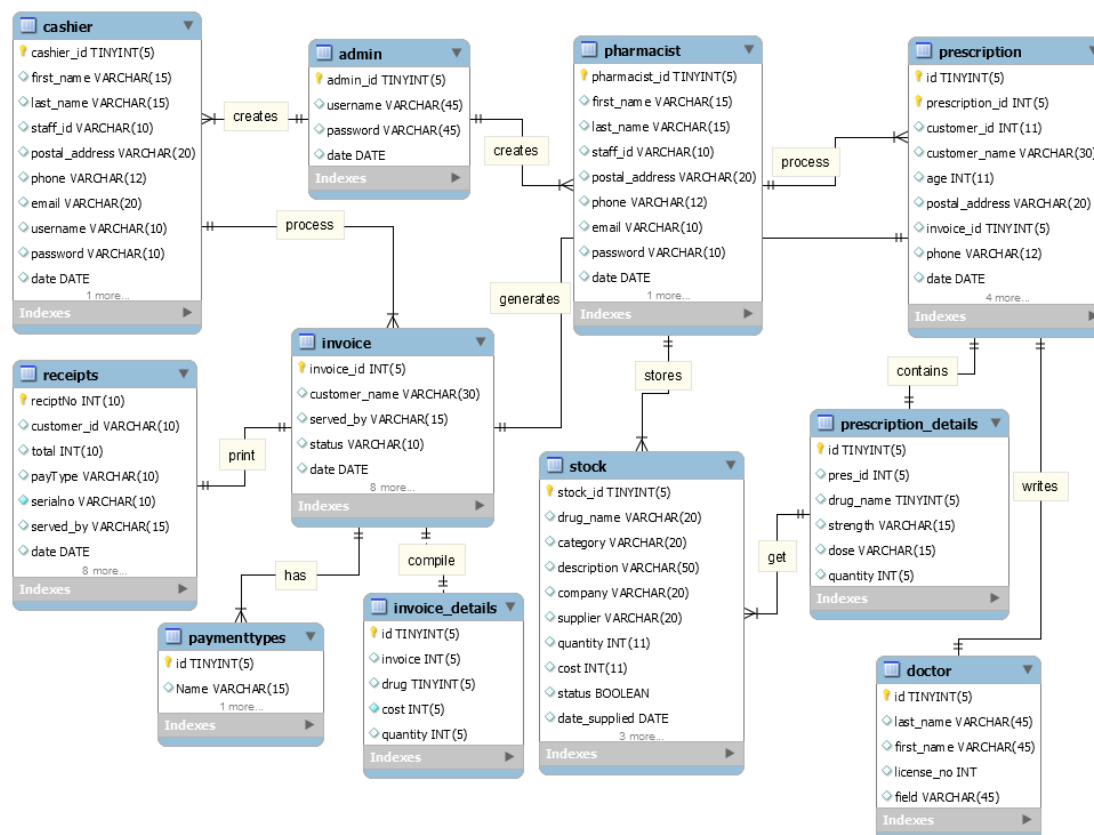
Timing Diagram



Use Case Diagram



Entity-Relationship Diagram



Graphical User Interface Screen Layouts

Cruz-Rabe Pharmacy System©

Log In


admin

.....


- select position -

Log In

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Cruz-Rabe Pharmacy System©




Log In

- select position -

- select position -
Admin
Pharmacist
Cashier

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Admin Page




Cruz-Rabe Pharmacy System©

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Main Page
Pharmacist
Cashier
Log Out




Pharmacist



Cashier

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Admin Pharmacist

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[Main Page](#)
[Pharmacist](#)
[Cashier](#)
[Log Out](#)


Manage Pharmacist

[VIEW USER](#)[ADD USER](#)

ID	Firstname	Lastname	Username	Update	Delete
1	Carl Dominique	Bueno	cpbueno		
3	Carmelita	Buenaflor	melbuen		

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Admin Cashier

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[Main Page](#)
[Pharmacist](#)
[Cashier](#)
[Log Out](#)


Manage Cashier

[VIEW USER](#)[ADD USER](#)

ID	Firstname	Lastname	Username	Update	Delete
1	Carl Dominique	Bueno	cpbueno		
2	Carmelita	Buenaflor	melbuen		
3	Cashier	CRPS	cashier		
4	Norrie	Peñaverde	nbpenaverde		

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Add Pharmacist

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[Main Page](#)
[Pharmacist](#)
[Cashier](#)
[Log Out](#)

Manage Pharmacist

VIEW USER

ADD USER

First Name

Last Name

Staff ID

Address

Phone

Email


Username

Password

Submit

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Add Cashier

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[Main Page](#)
[Pharmacist](#)
[Cashier](#)
[Log Out](#)

Manage Cashier

VIEW USER

ADD USER

First Name

Last Name

Staff ID

Address

Phone

Email


Username



Password


Submit

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Pharmacist Main Page


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Main Page	 Prescription	 Stock Inventory
Prescription Request		
Stock Inventory		
Log Out		




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Cashier Main Page


**Cruz-Rabe Pharmacy System©**
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Main Page	 Process Payment
Process Payment	
Log Out	



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Prescription Request View




Cruz-Rabe Pharmacy System

Cruz-Rabe Maternity & General Hospital | SSMC-F-PHR-001-R.0

[Main Page](#)[Prescription Request](#)[Stock Inventory](#)[Log Out](#)


Prescription

[VIEW](#)[CREATE NEW](#)

Patient Name	Prescription No.	Official Receipt No.	Date	Delete
Daniel Basalio	999	16	2016-12-12 20:12:32	

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Prescription Create New




Cruz-Rabe Pharmacy System

Cruz-Rabe Maternity & General Hospital | SSMC-F-PHR-001-R.0

[Main Page](#)[Prescription Request](#)[Stock Inventory](#)[Log Out](#)


Prescription

[VIEW](#)[CREATE NEW](#)

Patient Name	Prescription No.	Official Receipt No.	Date	Delete
Daniel Basalio	999	16	2016-12-12 20:12:32	

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Inventory Add Stock


Cruz-Rabe Pharmacy System©
 Cruz-Rabe Maternity & General Hospital | SSMC-F-PHR-001-R.0

Main Page
 Prescription Request
 Stock Inventory
 Log Out

Manage Stock


VIEW STOCK

ADD MEDICAL SUPPLIES

Medicine/Supplies
Type
Description
Manufacturing Company
Supplier
Quantity
Unit Cost
Submit

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Stock Inventory View


Cruz-Rabe Pharmacy System©
 Cruz-Rabe Maternity & General Hospital | SSMC-F-PHR-001-R.0

Main Page
 Prescription Request
 Stock Inventory
 Log Out

Manage Stock


VIEW STOCK

ADD MEDICAL SUPPLIES

ID	Item Name	Type	Description	Status	Date	Delete
11	Maxicap	Capsule	Multivitamins + Lysine	Available	2016-12-10	✖
12	Biogesic	Tablet	Analgesic 500mg	Available	2016-12-10	✖
13	Extra	Tablet	Paracetamol	Available	2016-12-10	✖
14	Multivitamins + Iron	Capsule	Multivitamins + Iron	Available	2016-12-10	✖
15	Mefenamic Acid	Capsule	Analgesic Non-Steroidal	Available	2016-12-10	✖
16	MultiVita	Capsule	Food Supplement	Available	2016-12-10	✖
17	Panadol	Capsule	sample	Available	2016-12-12	✖

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Cashier Payment



Cruz-Rabe Pharmacy System

Cruz-Rabe Maternity & General Hospital | SSMC-F-PHR-001-R.0

Main Page

Process Payment

Log Out

Print Receipt

Manage Payments

PROCESS PAYMENTS

Official Receipt No.

Total Amount

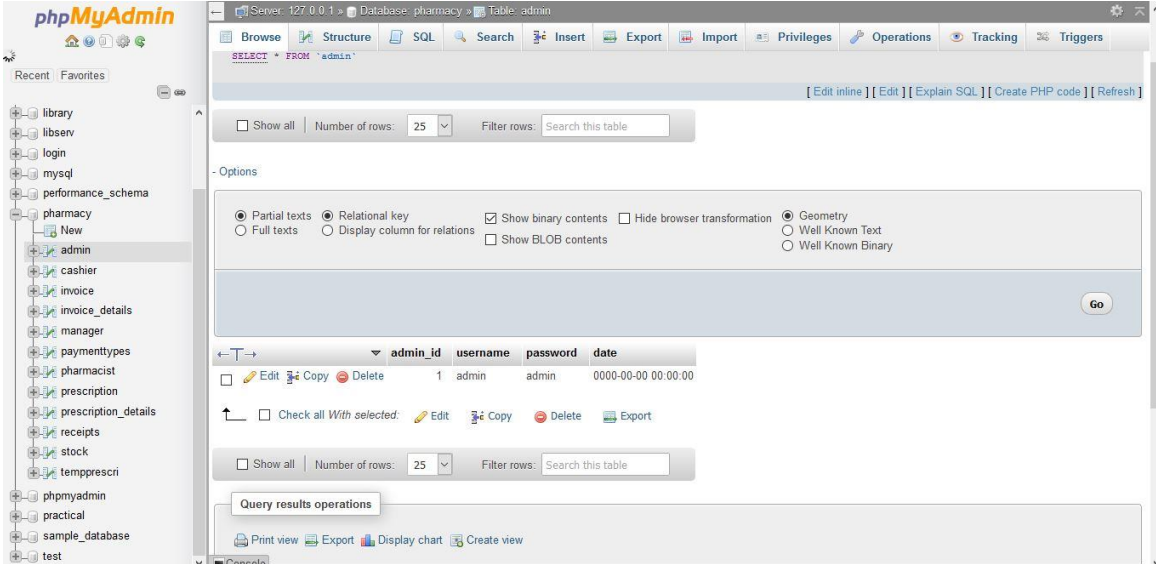
Charge to

Serial No

Submit

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SQL Database Screenshot



Server: 127.0.0.1 » Database: pharmacy » Table: admin

SELECT * FROM `admin`

[Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

☐ Show all | Number of rows: 25 | Filter rows: Search this table

- Options

☒ Partial texts ☒ Relational key ☒ Show binary contents ☐ Hide browser transformation ☒ Geometry
☐ Full texts ☐ Display column for relations ☐ Show BLOB contents ☐ Well Known Text
☐ Well Known Binary

Go

	admin_id	username	password	date
<input type="checkbox"/>	1	admin	admin	0000-00-00 00:00:00

☐ Check all With selected: ☐ Edit ☐ Copy ☐ Delete ☐ Export

☐ Show all | Number of rows: 25 | Filter rows: Search this table

Query results operations

☐ Print view ☐ Export ☐ Display chart ☐ Create view

Console

phpMyAdmin

Recent Favorites

library

libserv

login

mysql

performance_schema

pharmacy

New

admin

cashier

invoice

invoice_details

manager

paymenttypes

pharmacist

prescription

prescription_details

receipts

stock

temprescri

phpmyadmin

practical

sample_database

test

Server: 127.0.0.1 » Database: pharmacy » Table: cashier

Browse

Structure

SQL

Search

Insert

Export

Import

Privileges

Operations

Tracking

Triggers

Options

Partial texts

Full texts

Relational key

Display column for relations

Show binary contents

Show BLOB contents

Hide browser transformation

Geometry

Well Known Text

Well Known Binary

Go

cashier_id

first_name

last_name

staff_id

postal_address

phone

email

username

password

date

1

Carl Dominique

Bueno

950209

Taguig City

09366993325

carl.dominiquebueno@cpbueno

cpbueno

cpbueno

2016-12-10 1

2

Carmelita

Buenafior

910101

Makati City

09366992140

melbuenafior@gmail.c

melbuen

melbuen

2016-12-10 1

3

Cashier

CRPS

20161216

Muntinlupa City

09876543210

cashier@gmail.com

cashier

cashier

2016-12-10 1

4

Norrie

PeAaverde

20161216

Taguig City

09759802514

norriepenaverde18@gm

nbpenaverde

qwerty

2016-12-12 0

Check all

With selected:

Edit

Copy

Delete

Export

Show all

Number of rows: 25

Filter rows: Search this table

Query results operations

Print view

Export

Display chart

Create view

Console

phpMyAdmin

Recent Favorites

library

libserv

login

mysql

performance_schema

pharmacy

New

admin

cashier

invoice

invoice_details

manager

paymenttypes

pharmacist

prescription

prescription_details

receipts

stock

temprescri

phpmyadmin

practical

sample_database

test

Server: 127.0.0.1 » Database: pharmacy » Table: invoice

Browse

Structure

SQL

Search

Insert

Export

Import

Privileges

Operations

Tracking

Triggers

Options

Partial texts

Full texts

Relational key

Display column for relations

Show binary contents

Show BLOB contents

Hide browser transformation

Geometry

Well Known Text

Well Known Binary

Go

invoice_id

customer_name

served_by

status

date

10

Jessa Rose Biag

cpbueno

Pending

2016-12-10 13:51:13

11

Carl

cpbueno

Pending

2016-12-10 13:55:48

12

Marvin Dematera

cpbueno

Pending

2016-12-10 13:59:57

13

Alvin Cruz

cpbueno

Pending

2016-12-10 14:10:00

14

Cheska

cpbueno

Pending

2016-12-12 10:42:33

15

Marvin Dematera

cpbueno

Pending

2016-12-12 10:46:58

16

Daniel Basallo

cpbueno

Pending

2016-12-12 20:12:32

17

Glen

cpbueno

Pending

2016-12-13 07:41:51

Sort by key:

None

Show all

Number of rows: 25

Filter rows: Search this table

Options

Partial texts

Full texts

Relational key

Display column for relations

Show binary contents

Show BLOB contents

Hide browser transformation

Geometry

Well Known Text

Well Known Binary

Go

id

invoice

drug

cost

quantity

13

12

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Sort by key:

None

Show all

Number of rows: 25

Filter rows: Search this table

Options

Partial texts

Full texts

Relational key

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Sort by key:

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Show all

Number of rows: 25

Filter rows: Search this table

Options

Partial texts

Full texts

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Show all

Number of rows: 25

Filter rows: Search this table

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Full texts

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Filter rows: Search this table

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Sort by key:

None

Show all

Number of rows: 25

Filter rows: Search this table

Options

Partial texts

Full texts

Relational key

Display

phpMyAdmin

Recent Favorites

- library
- libserv
- login
- mysql
- performance_schema
- pharmacy
 - New
 - admin
 - cashier
 - invoice
 - invoice_details
 - manager
 - paymenttypes
 - pharmacist
 - prescription
 - prescription_details
 - receipts
 - stock
 - tempprescri
- phpmyadmin
- practical
- sample_database

Server: 127.0.0.1 » Database: pharmacy » Table: manager

Browse Structure SQL Search Insert Export Import Privileges Operations Tracking Triggers

Showing rows 0 - 1 (2 total, Query took 0.0005 seconds.)

SELECT * FROM 'manager'

[Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all Number of rows: 25 Filter rows: Search this table

Sort by key: None

Options

☒ Partial texts ☒ Relational key ☒ Show binary contents ☐ Hide browser transformation ☒ Geometry
☐ Full texts ☐ Display column for relations ☐ Show BLOB contents ☐ Well Known Text ☐ Well Known Binary

Go

	manager_id	first_name	last_name	staff_id	postal_address	phone	email	username	password	date
<input type="checkbox"/> Edit Copy Delete	1	Carl	Dominique	950209	Taguig City	09366993325	carl.dominiquebueno@cpbueno	cpbueno	cpbueno	2016-12-10
<input type="checkbox"/> Edit Copy Delete	2	Carmelita	Buenafior	910101	Makati City	09366992140	melbuenafior@gmail.c	melbuen	melbuen	2016-12-10

Console Check all With selected: Edit Copy Delete Export

phpMyAdmin

Recent Favorites

- library
- libserv
- login
- mysql
- performance_schema
- pharmacy
 - New
 - admin
 - cashier
 - invoice
 - invoice_details
 - manager
 - paymenttypes
 - pharmacist
 - prescription
 - prescription_details
 - receipts
 - stock
 - tempprescri
- phpmyadmin
- practical
- sample_database
- test

Server: 127.0.0.1 » Database: pharmacy » Table: paymenttypes

Browse Structure SQL Search Insert Export Import Privileges Operations Tracking Triggers

Showing rows 0 - 1 (2 total, Query took 0.0005 seconds.)

SELECT * FROM 'paymenttypes'

[Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all Number of rows: 25 Filter rows: Search this table

Sort by key: None

Options

☒ Partial texts ☒ Relational key ☒ Show binary contents ☐ Hide browser transformation ☒ Geometry
☐ Full texts ☐ Display column for relations ☐ Show BLOB contents ☐ Well Known Text ☐ Well Known Binary

Go

	id	Name
<input type="checkbox"/> Edit Copy Delete	1	Patient
<input type="checkbox"/> Edit Copy Delete	2	HMO
<input type="checkbox"/> Edit Copy Delete	3	PhilHealth Card
<input type="checkbox"/> Edit Copy Delete	4	Cash
<input type="checkbox"/> Edit Copy Delete	5	Company

Console

phpMyAdmin

Recent Favorites

- library
- libserv
- login
- mysql
- performance_schema
- pharmacy
 - New
 - admin
 - cashier
 - invoice
 - invoice_details
 - manager
 - paymenttypes
 - pharmacist
 - prescription
 - prescription_details
 - receipts
 - stock
 - tempprescri
- phpmyadmin
- practical
- sample_database

Server: 127.0.0.1 » Database: pharmacy » Table: pharmacist

Browse Structure SQL Search Insert Export Import Privileges Operations Tracking Triggers

Showing rows 0 - 1 (2 total, Query took 0.0005 seconds.)

SELECT * FROM 'pharmacist'

[Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all Number of rows: 25 Filter rows: Search this table

Sort by key: None

Options

☒ Partial texts ☒ Relational key ☒ Show binary contents ☐ Hide browser transformation ☒ Geometry
☐ Full texts ☐ Display column for relations ☐ Show BLOB contents ☐ Well Known Text ☐ Well Known Binary

Go

	pharmacist_id	first_name	last_name	staff_id	postal_address	phone	email	username	password	date
<input type="checkbox"/> Edit Copy Delete	1	Carl	Dominique	950209	Taguig City	09366993325	carl.dominiquebueno@cpbueno	cpbueno	cpbueno	2016-12-10
<input type="checkbox"/> Edit Copy Delete	3	Carmelita	Buenafior	20161212	Taguig City	09366993325	melbuenafior@gmail.c	melbuen	qwerty	2016-12-10

Console Check all With selected: Edit Copy Delete Export

phpMyAdmin interface showing three database tables: prescription, prescription_details, and receipts.

Table: prescription

Showing rows 0 - 1 (2 total, Query took 0.0005 seconds.)

SELECT * FROM 'prescription'

Options:

- ☒ Partial texts
- ☐ Full texts
- ☒ Relational key
- ☐ Display column for relations
- ☒ Show binary contents
- ☐ Hide browser transformation
- ☐ Show BLOB contents
- ☒ Geometry
- ☐ Well Known Text
- ☐ Well Known Binary

		id	prescription_id	customer_id	customer_name	age	sex	postal_address	invoice_id	phone	date	
<input type="checkbox"/>	Edit	<input type="checkbox"/>	19	999	121216	Daniel Basilio	34	Male	Pasig City	16	0922331232	2016-12-12 20:12:32
<input type="checkbox"/>	Edit	<input type="checkbox"/>	20	1000	1	Glen	19	Male	Taguig City	17	0932212112	2016-12-13 07:41:51

Check all With selected: Edit Copy Delete Export

Table: prescription_details

Showing rows 0 - 5 (6 total, Query took 0.0005 seconds.)

SELECT * FROM 'prescription_details'

Options:

- ☒ Partial texts
- ☐ Full texts
- ☒ Relational key
- ☐ Display column for relations
- ☒ Show binary contents
- ☐ Hide browser transformation
- ☐ Show BLOB contents
- ☒ Geometry
- ☐ Well Known Text
- ☐ Well Known Binary

		id	pres_id	drug_name	strength	dose	quantity	
<input type="checkbox"/>	Edit	<input type="checkbox"/>	34	1000	12	500mg	2/day	2
<input type="checkbox"/>	Edit	<input type="checkbox"/>	35	1001	13	5mg	2/day	5
<input type="checkbox"/>	Edit	<input type="checkbox"/>	36	999	11	500mg	3x/day	5
<input type="checkbox"/>	Edit	<input type="checkbox"/>	37	999	12	5mg	1/day	7

Check all With selected: Edit Copy Delete Export

Table: receipts

Showing rows 0 - 1 (2 total, Query took 0.0005 seconds.)

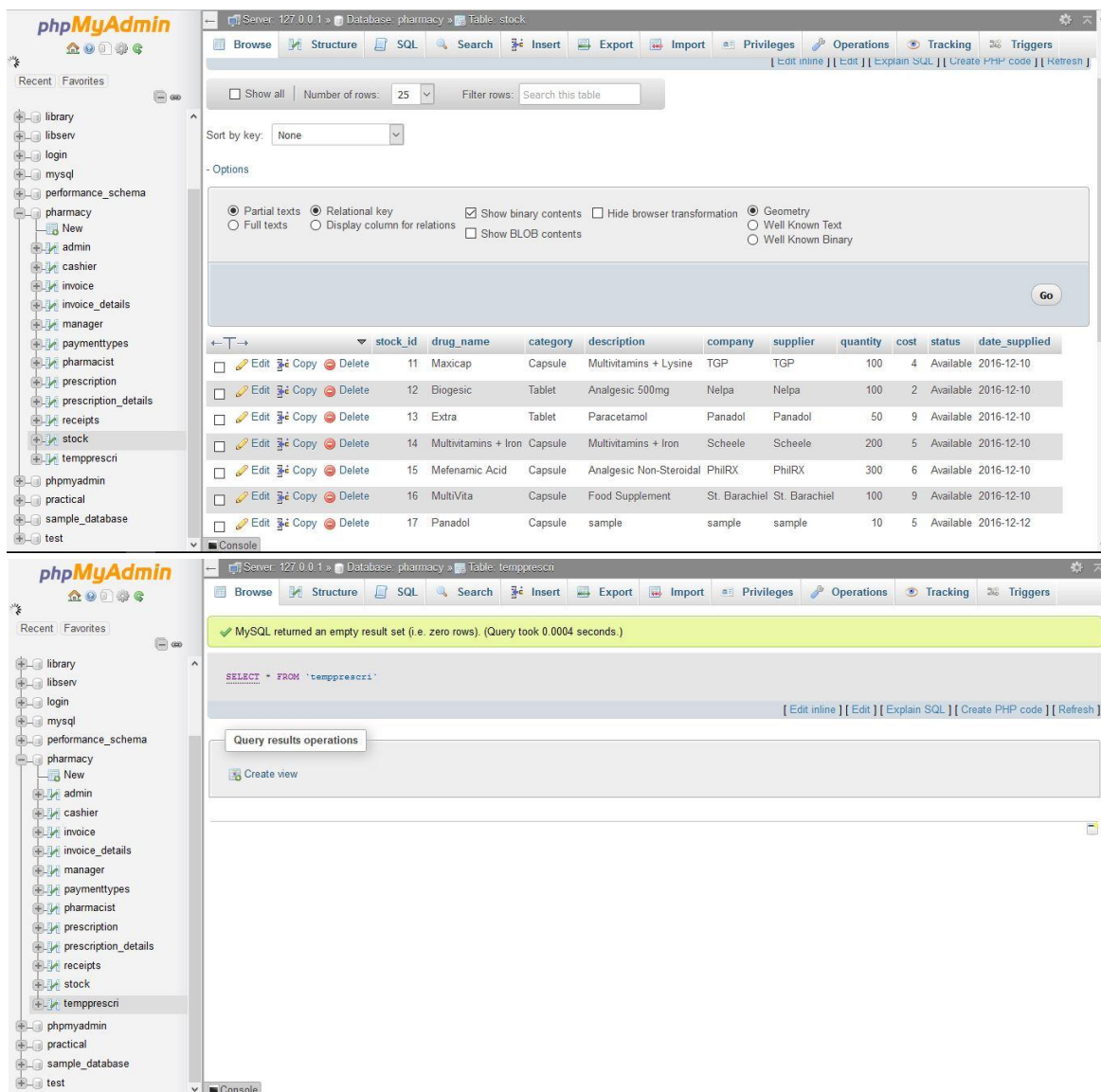
SELECT * FROM 'receipts'

Options:

- ☒ Partial texts
- ☐ Full texts
- ☒ Relational key
- ☐ Display column for relations
- ☒ Show binary contents
- ☐ Hide browser transformation
- ☐ Show BLOB contents
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- ☐ Well Known Text
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		receiptNo	customer_id	total	payType	serialno	served_by	date
<input type="checkbox"/>	Edit	<input type="checkbox"/>	0	1500			sam	0000-00-00 00:00:00
<input type="checkbox"/>	Edit	<input type="checkbox"/>	999	1350			sam	0000-00-00 00:00:00

Check all With selected: Edit Copy Delete Export



Project Vision and Scope

Business Requirements

In order to ensure patient's safety, cost effective processes and well managed admission on managing medical services, through preventing clinical errors and the use of resources efficiently. Therefore, business process should have a sufficient tool which is an automation of "Pharmacy System." Transactions that are processed in different factors including; IN and OUT patient order entry, dispensing orders, stocks inventory and purchasing management will stand-alone by providing innovative way of service. The client Cruz-Rabe Maternity General Hospital will apply the latest technology enabling complete control to improve medical management and to bring satisfaction to their clients in terms of professional service.

Background

A lot of people are laying their health safety in the hands of medical field professionals, with corresponding good quality equipment, and authorized medicines. These requirements, to ensure to have the right treatment, are all present in the developers' chosen client; Cruz-Rabe Maternity and General Hospital, accredited as one of the secondary hospital in Taguig City and located at 37 General Luna St., Tuktukan, Taguig City. The hospital itself is a three-storey building that can accommodate 30 bed rooms over 50 patients. Cruz-Rabe Maternity & General Hospital was categorized as a private class hospital in Taguig City and owned by a family corporation. The hospital has associate subsidiaries namely; South Super Highway Medical Centre, the main hospital which can do major unitary operations. And the last one is General Trias Satellite Hospital, which is a gateway hospital in Cavite. These 3 hospitals were owned by Dr. Jose Casimiro Rabe, a family doctor and his wife Dra. Erlinda Cruz Rabe an ob-gyne. Cruz-Rabe Maternity & General Hospital had addressed its main problem particularly on the Pharmacy Booth section and which we think our project team can contribute a solution to their dilemma. Specifically, we proposed a system for the automation of their "Manual Process of Pharmacy Requests."

Business Opportunity

Based on the client's needs, a Pharmacy System will make a huge difference in its line of work. There is sufficient amount of tools to help them do business processes but they are not enough to make it efficient. All transactions being done are in manual type of processing. Because of this, the developers decided to pick an area to develop wherein that factor does a critical role; the pharmacy. The pharmacy of Cruz-Rabe hospital has only two pharmacists, including the developers' contact, Mrs. Carmelita Buenaflor. Mainly, her concern is the manual way of processing the prescription orders of the patients. Since most likely, a pharmacy request slip needs to be transacted before allowing the patients to leave thus, having another aspect of system because most of the time, the order has already medicines required to be bought before the release. This is where the inventory side comes in. The Pharmacy Request System that will be made can cover all these factors in one place, a big business opportunity which must be done to ensure the efficiency of work especially with limited number of employees.

Business Objectives and Success Criteria

Business Objectives:

- To eliminate undue resources by implementing Paperless Transactions System (PTS) through the use of the system.
- Provides an electronic system that interacts with the patient and the pharmacy.
- Offers convenient way of discharging patients by accumulating valuable records.

We can assume that the system will be feasible if we meet the following requirements:

- If the system seems to be helpful when hospital transactions (pharmacy requests) are now processed in just a few moments.
- If the results produced are accurate and reliable for the patients.
- If the pharmacy records can be tracked down easily from its database.
- If less resources are utilized but service would improve.

We can assume that the system will be successful for a long term if we meet the following requirements:

- If the system is useful to patients and hospital staffs in terms of service, performance and satisfaction.
- If it will generate enough revenue to support the maintenance of the system.

Customer or Market Needs

Our client's previous business processes particularly in pharmacy transaction uses manual way of requesting and dispensing orders to the patient. However, discharging also took time and resources before the releasing. Therefore, our project team proposed a system that targets anyone who needs prescription medication or other health-related products and identifying the different types of patients who make purchases at the pharmacy. Defining the pharmacy's target on satisfaction of service and lessen the time of processes, the system will be able to streamline the business transactions by ordering the right products and payments in a more efficient manner.

Business Risks

In operation of the system, it might take in critics since the pharmacy department will be adapting changes towards its business transactions. Therefore, it will require equipment and additional services in order to produce the system. This means, the organization need to invest in this project as there is a possibility to make changes in certain aspects such as its maintenance and security.

Vision of the Solution

Our vision is for pharmacy processes to play its part in improving quality in pharmacy performance and services. Patients may assume the automation of processing the prescription and demand on discharging patients.

Vision Statement

A Web-based system for processing pharmacy request within a system, dedicated to ease the way of accepting requests by pharmacists to process the automated prescription orders and dispense orders in a better way. It will not only verify the information received, but also keep the records in a secured database which can be accessed for future preferences. Unlike the old-way of manual processes, Cruz-Rabe Pharmacy Request System intends to improve the quality of work in the medical field by providing the essential steps of transactions in fast-pace. The vision of this system is determined to meet patient's satisfaction in terms of service.

Major Features

The Pharmacy Request System offers the following features:

- Convenient way of purchasing Medicine and Supplies within the pharmacy.
- Can easily do inventory check for tracking down changes on stocks.
- Discharging patients with electronic records.
- Checks the validation and availability of the requests.
- Secures the authorization of the pharmacists and authorized personnel to do the process.
- Sends the information throughout the other departments electronically.

Assumptions and Dependencies

AS-1: Additional equipment, services, and maintenance will be improvised for the authorized personnel to do the business processes.

AS-2: The hospital will be developed to ensure the system was implemented well-lesser hardcopies, more softcopies for the records.

DE-1: If the pharmacy records will be accessible with the other departments to support the system for consistency of the data.

Scope and Limitations

Pharmacy Request System is intended for pharmacists to use in their service that assists patients' drug requests that is prescribed by a doctor. The patients will present their prescription given by the doctor into the nurse that will be processed by the pharmacist. The pharmacist will do request of orders that will be paid upon the cashier and billing section. Once the orders are paid, the orders will be ready to dispense to the patient. Alternatively, the Pharmacy Requests will be automated and the data will be on a database for data warehouse. On discharging In-Patients will be provided with their records as fast as possible. The stocks they took will be listed down on their records in real time. Therefore, in paying their bills, the process will take lesser time. This scheme will ease the work of the auditing staff and improve the discharging process of patients.

Limitations and Exclusions

The Cruz-Rabe Pharmacy Request System will be having a paperless transaction. The departments are linked to provide services to the patient. The system will also provide records for the discharging patient.

Business Context

<i>Stakeholder</i>	<i>Major Value</i>	<i>Attitudes</i>	<i>Major Interests</i>	<i>Constraints</i>
Pharmacists	Has the key role in the entire business transaction on processing the prescription for request of patients.	Determined to bring the best production in pharmacy, concern in the development of the following areas.	Job preservation, service satisfaction.	Brief practice on the new scheme of business process.
Doctors	Serves as the source of pharmacy transactions.	Checks and issues prescription for the patient.	Patient Prescriptions will be only validated by pharmacists	No prescription, no request.
Patients	The primary client of the system.	Interaction with the doctor, nurse and pharmacists on pharmacy transaction	Ease of way of dispense of orders and discharge.	Implementation of the system.
Nurse	Offers service and assistance to the client	Assist the patient of processing request.	Serves patient on their demands and requests	Service on patient
Cashier/ Billing	Functions on financial aspects and records of the client.	Receives payment and issues receipt for the client. Release discharge record of the patient	Make all things credited and validate	Purchased items and payments will be logged for discharge.

<i>Dimension</i>	<i>Driver (state objective)</i>	<i>Constraint (state limits)</i>	<i>Degree of Freedom (state allowable range)</i>
Schedule	release 1.0 to be available by 10/14/16, the next release for version 1.1 will be on 10/18/16. The release of the final version will be on month of December 2016.	Time constraints	none
Features	The system provides services to the patient	none	70-80% of high priority features must be included in release 1.0
Quality	CRPRS provides satisfaction to the client	Bugs and Errors	90-95% of user acceptance tests must pass for release 1.0, 95-98% for release 1.1
Staff	The project team were able to meet the demands of the client.	maximum team size 6 developers + 4 testers	none
Cost	The cost of the project depends on the feature of the system. It must be supported by the client.	Budget of the organization	budget overrun up to 15% acceptable without executive review

Operating Environment

The deployment of the system will be successful if it meets the following criteria:

- Stable network connection from the nurse station to pharmacy department up to billing section.
- Computers and other peripherals are working and maintained properly to prevent occurrence of technical interruptions.
- The users (pharmacists, nurse, cashier) are capable to use system.
- Utilizing authorization protocols to secure usage of the system.

Statement of Work

Introduction

Cruz-Rabe Maternity and General Hospital has recently sponsored a system for their Pharmacy inside the hospital by students for their course project. It is called Cruz-Rabe Pharmacy Request System. It is a system where the admin or operator can track all the flows related to pharmacy. CRPRS will focus on tracking expenses and point of sales of the pharmacy. It will be more efficient since the pharmacy will now have a system where all activities inside pharmacy will less work flows. The said system on the pharmacy will do inside works like database for inventory where the operator will not use paper works anymore which they find inconvenience at work. It also gives less time to process a customer order. As for new developments, CRPRS will find it helpful for them to work because of less time for flow of processes and easy to track the inventory inside pharmacy.

Scope of Work

The scope of work for the CRPRS includes all planning, execution, implementation, and training for a new public-facing a technology. The selected pharmacist will be responsible for operating the new system provided by students. Each stage of the project will require approval from Cruz-Rabe management before moving on to the next stage. The selected developer must ensure it has adequate resources for designing, building, testing, and implementing the new system site and is staffed for the training of pharmacist or other personnel as well to monitor and operate the system well. Specific deliverables and milestones will be listed in the Database of the work of flows sections of this SOW.

Period of Performance

The period of performance for the CRPRS is one year (365 days) beginning when project finished and it will be a testing to know if the system is successful. All work must be scheduled to complete within this timeframe. Any modifications or extensions will be

requested through Cruz-Rabe Management contracting officers for review and discussion.

Place of Performance

The selected pharmacist for the Cruz-Rabe Pharmacy Request System will perform a majority of the work at its own facility inside the hospital. The pharmacist will be required to meet at Cruz-Rabe facility every day since it is a Hospital. Additionally, all project gate reviews will be held at Cruz-Rabe Management facility and attended by the pharmacist. Cruz-Rabe will provide and arrange for meeting spaces within its facility for all required pharmacist meetings. Once the project reaches the training phase, all training will be conducted at Cruz-Rabe facility.

Work Requirements

As part of the Cruz-Rabe Pharmacy Request System, the Students will be responsible for performing tasks throughout various stages of this project.

The following is a list of these tasks which will result in the successful completion of this project:

Kickoff:

- Students will create and present detailed project plan including schedule, testing plan, implementation plan, training plan, and transition plan
- Students will present project plan to Cruz-Rabe Management for review and approval

Design Phase:

- Work with the management to gather requirements and establish metrics
- Create system design based on collected requirements
- Develop site design proposal for Cruz-Rabe Management and review and approval
- Present written status at weekly meeting

Build Phase:

- Students will complete all coding for approved site design
- Students will provide the management with a detailed testing plan
- Students will include all content provided by the management on redesigned system
- Students will resolve any coding and site issues identified in testing
- Students will compile a testing report to present to the Management for review/approval
- Present written status at weekly meeting

Implementation Phase:

- Students will implement the newly redesigned system on Management servers
- Students will begin providing 24x7 system support at this point forward until the end of the period of performance
- Present written status at weekly meeting

Training Phase:

- Management will provide training in accordance with approved training plan provided in the kickoff
- Present written status at weekly meeting

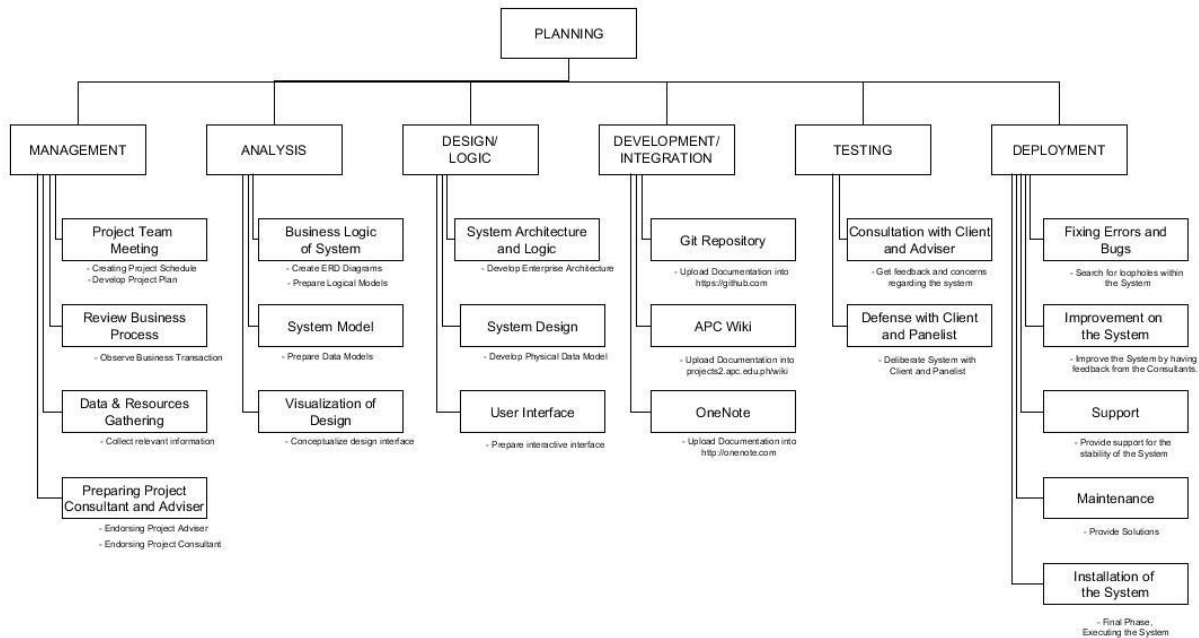
Project Handoff/Closure:

- Vendor will provide SCG with all documentation in accordance with the approved project plan
- Vendor will present project closure report to SCG for review and approval
- Vendor will complete the project requirements checklist showing that all project tasks have been completed
- Vendor will conclude 24x7 web support at 11:59pm on the final day of the period of performance
- Present written status at weekly meeting

Gantt Chart

#	NAME	DURATION	START	FINISH	RESOURCES NAME
1	Planning	29 days	06/09/2016	07/07/2016	Project Manager
2	Project Team meeting	1	06/09/2016	06/09/2016	
4	Reviewing Business Process	14	06/10/2016	06/23/2016	
5	Data and Resources gathering	11	06/24/2016	07/04/2016	
6	Preparing Project Consultant and Adviser	3	07/05/2016	07/07/2016	
7	Planning Complete	0	07/07/2016	07/07/2016	
8	Analysis	18 days	07/07/2016	07/25/2016	Project Manager
9	Business Logic of System	5	07/07/2016	07/13/2016	
10	System Models	3	07/14/2016	07/16/2016	
11	Visualizing Design	10	07/15/2016	07/25/2016	Project Developer
12	Business Logic Complete	0	07/25/2016	07/25/2016	
13	Design	23 days	07/25/2016	08/16/2016	Project Developer
14	System Architecture and Logic (Prototype)	9	07/25/2016	08/02/2016	
15	System Design (Prototype)	11	08/03/2016	08/13/2016	
16	User Interface	3	08/14/2016	08/16/2016	
17	Design Complete	0	08/16/2016	08/16/2016	
18	Development	5 days	08/16/2016	08/20/2016	Project Manager
20	Git Repository	2	08/16/2016	08/17/2016	
21	OneNote	1	08/18/2016	08/18/2016	
22	APC Wiki	2	08/19/2016	08/20/2016	
23	System Code Complete	0	08/20/2016	08/20/2016	
24	Testing	2 days	08/20/2016	08/22/2016	
25	Consultation with Project Client and Adviser	1	08/21/2016	08/21/2016	Client; Adviser
26	Defense with Client and Panelist	1	08/22/2016	08/22/2016	Client; Panelist
27	Testing Complete	0	08/22/2016	08/22/2016	
28	Deployment	87 days	09/19/2016	12/16/2016	Project Manager; Developer
29	Fixing errors and bugs	12	09/19/2016	09/30/2016	Project Manager
30	Improvement on the System	33	10/01/2016	11/04/2016	
31	Support	14	11/05/2016	11/18/2016	
32	Maintenance	15	11/19/2016	12/03/2016	Project Developer
33	Installation of the System	13	12/04/2016	12/16/2016	
34	Deployment Complete	0	12/16/2016	12/16/2016	

Work-Breakdown Structure



Activity List

Activity	Activity Name	Activity Name Description	# of Days	Start Date
1	Project Team meeting	Planning	1	06/09/2016
1.1	Reviewing Business Process	Planning	14	06/10/2016
1.2	Data and Resources gathering	Planning	11	06/24/2016
1.3	Preparing Project Consultant and Adviser	Planning	3	07/05/2016
2	Business Logic of System	Analysis	5	07/07/2016
2.1	System Models	Analysis	3	07/14/2016
2.2	Visualizing Design	Analysis	10	07/15/2016
3	System Architecture and Logic (Prototype)	Design	9	07/25/2016
3.1	System Design (Prototype)	Design	11	08/03/2016
3.2	User Interface	Design	3	08/14/2016
4	Git Repository	Development	2	08/16/2016
4.1	OneNote	Development	1	08/18/2016
4.2	APC Wiki	Development	2	08/19/2016
5	Consultation with Project Client and Advise	Testing	1	08/21/2016
5.1	Defense with Client and Panelist	Testing	1	08/22/2016
6	Fixing errors and bugs	Deployment	12	09/19/2016
6.1	Improvement on the System	Deployment	33	10/01/2016
6.2	Support	Deployment	14	11/05/2016
6.3	Maintenance	Deployment	15	11/19/2016
6.4	Installation of the System	Deployment	13	12/04/2016

System Requirements Specification

Purpose

The System Requirements Specification (SRS) document is intended to provide detailed overview of our software product, therefore, its constraints and goals. Our sponsored client, Cruz-Rabe Maternity and General Hospital, given us the opportunity to build a system wherein its scope is within pharmacy transactions of the hospital, including the interactions of patient and the management itself. The system from which we are building to provide convenient and more efficient in resources, namely Cruz-Rabe Pharmacy System. The purpose of this document is to discuss how the system works, its functionalities and its features. Therefore, the developers will use this document as a guide to completely comprehend the requirements to build and integrate the software.

Document Conventions

Software Requirement Specification document is published on Microsoft Word 2016, using font "Times New Roman" and font size of "12dp" for context and 14dp" for headings and titles with Bold font styles.

This document has six (6) parts with sub-topics, namely:

1. Introduction
2. Overall Description
3. External Interface Requirements
4. System Features
5. Other Nonfunctional Requirements
6. Other Requirements

Intended Audience and Reading Suggestions

Involve readers that were participated to the project:

- **Project Manager**
- **Developer**

- **Project Adviser**
- **Project Consultant**
- **Project Client**

- **Hospital Pharmacist**
- **Nurse**
- **Billing/Cashier**
- **Patient**

Product Scope

Pharmacy System is intended for pharmacists to use in their service that assists patients' drug requests that is prescribed by a doctor. The patients will present their prescription given by the doctor into the nurse that will be processed by the pharmacist. The pharmacist will do request of orders that will be paid upon the cashier and billing section. Once the orders are paid, the orders will be ready to dispense to the patient. Alternatively, the Pharmacy Requests will be automated and the data will be on a database for data warehouse. On discharging In-Patients will be provided with their records as fast as possible. The stocks they took will be listed down on their records in real time. Therefore, in paying their bills, the process will take lesser time. This scheme will ease the work of the auditing staff and improve the discharging process of patients.

Product Functions

Based on the user and software function:

DOCTOR

- check-up patient (in and out patient)
- create prescription for the patient (in and out patient)

NURSE

- create a request based on the prescription coming from the doctor
- distribute order/s to in-patient
- process the discharge request slip of in-patient.

PHARMACY

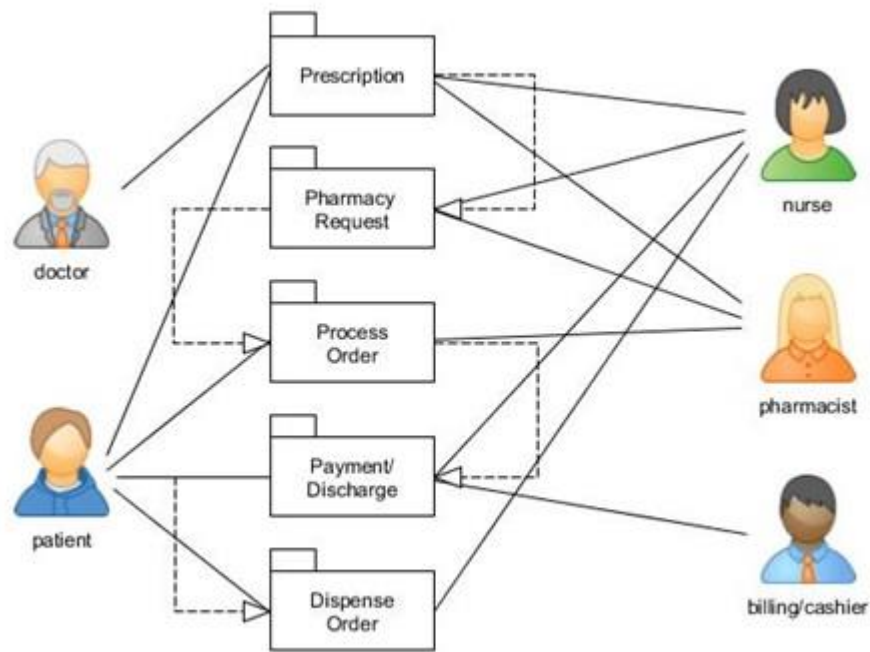
- check for the prescription's validity (if the drug or supply is necessary to give to patients)
- check the availability of orders and its effectivity.
- approve the request charge slip
- prepare orders for dispense to patients

PATIENT

- present prescription to the pharmacy for out-patient
- admit to the hospital if in-patient
- confirm order/s before processing
- take necessary and available medicine and supply upon request

BILLING & CASHIER

- confirm corresponding amount before generating to the system
- process service and order charge/s for in-patient for discharge clearance
- accept payment of orders from the patient
- generate official receipt



User Classes and Characteristics

The first hand user of Cruz-Rabe Pharmacy System is the hospital pharmacist. The system should only interact with a licensed pharmacist with sufficient knowledge on the software.

The first person user should consist of the following characteristic:

- Licensed pharmacist
- Computer-literate
- Can interact with the user interface and know how the system works
- Can do basic software operations
- Have knowledge on troubleshooting

Operating Environment

The system will run and be supported by the following:

- Core 2 Duo or Athlon X2 at 2.4 GHz or Higher
- At least 2GB of RAM
- 30GB of ROM or Higher
- Network Connection
- Windows 10 or Later
- Internet Browser (Google Chrome, Mozilla Firefox, etc.)
- PHP
- MySQL
- XAMPP Control Panel

Assumptions and Dependencies

AS-1: Additional equipment, services, and maintenance will be improvised for the authorized personnel to do the business processes.

AS-2: The hospital will be developed to ensure the system was implemented well-lesser hardcopies, more softcopies for the records.

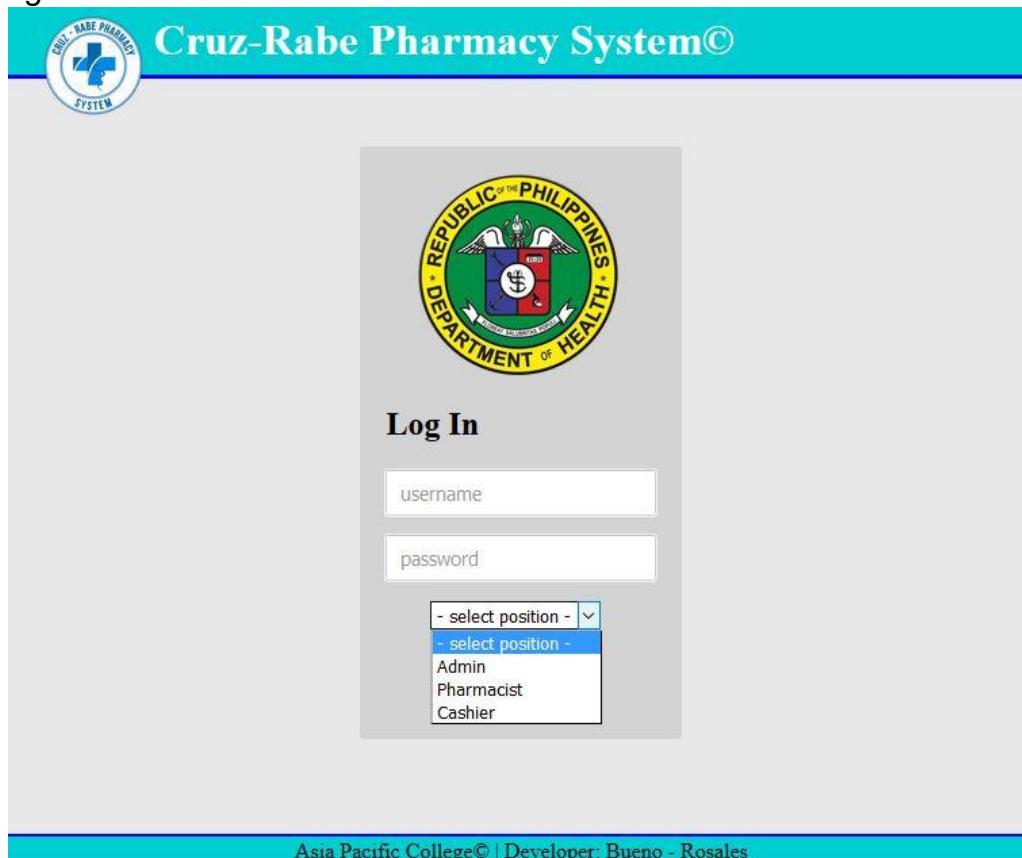
DE-1: If the pharmacy records will be accessible with the other departments to support the system for consistency of the data.

Hardware Interfaces


- Core 2 Duo or Athlon X2 at 2.4 GHz or Higher
- At least 2GB of RAM
- 30GB of ROM or Higher
- Network Connection and Peripherals
- Mouse
- Keyboard
- Printer/Copier Machine

User Interface

Login Page



Cruz-Rabe Pharmacy System©



Log In

username

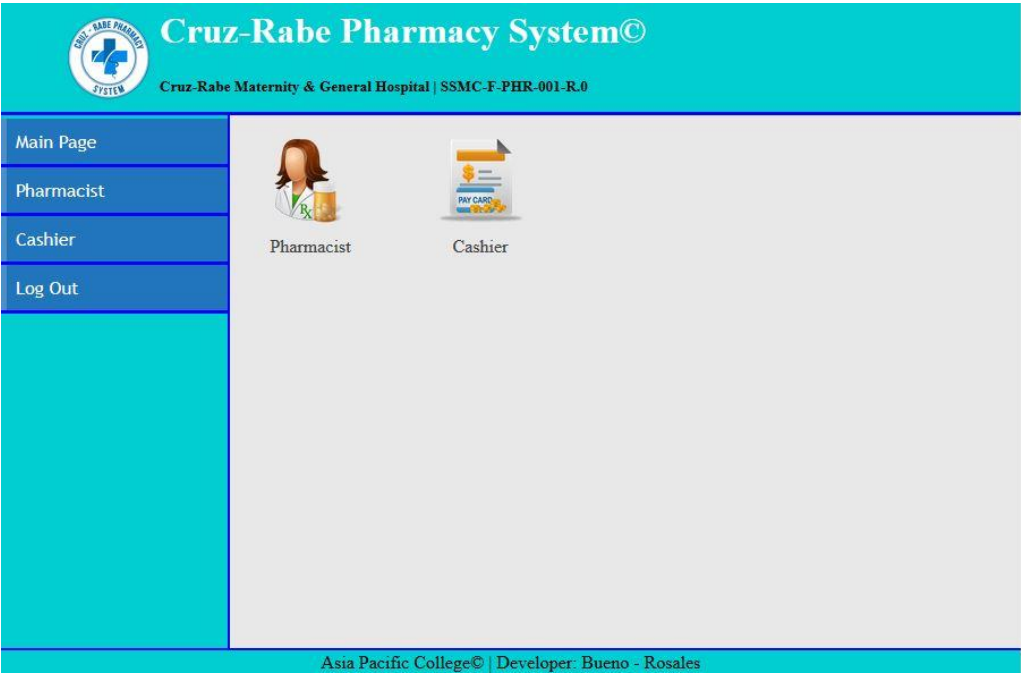
password

- select position -

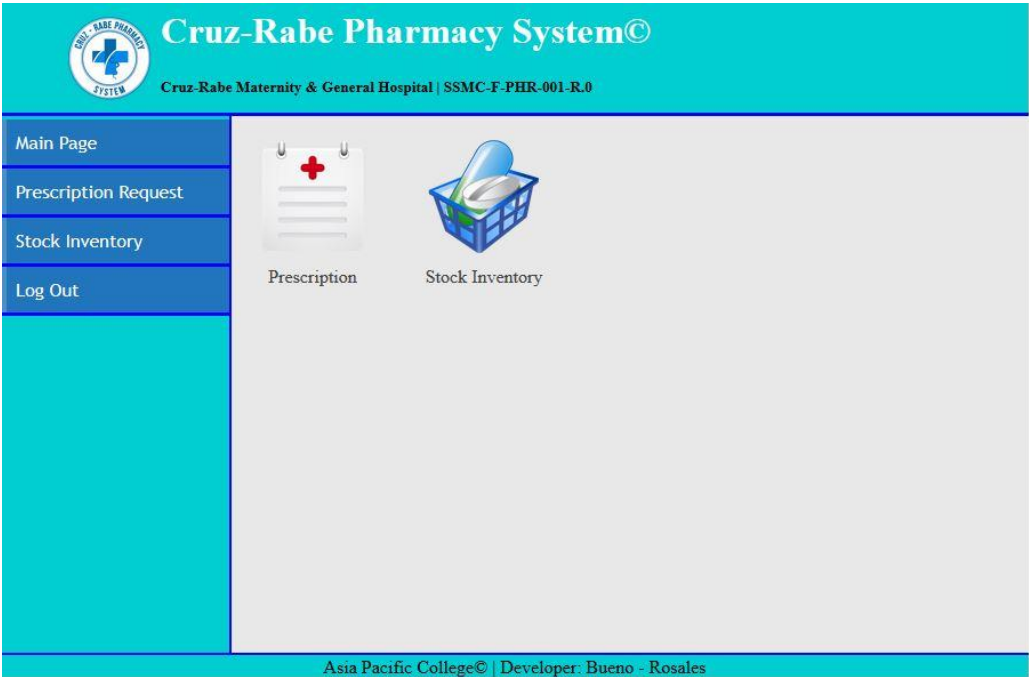
- select position -
- Admin
- Pharmacist
- Cashier

Asia Pacific College© | Developer: Bueno - Rosales

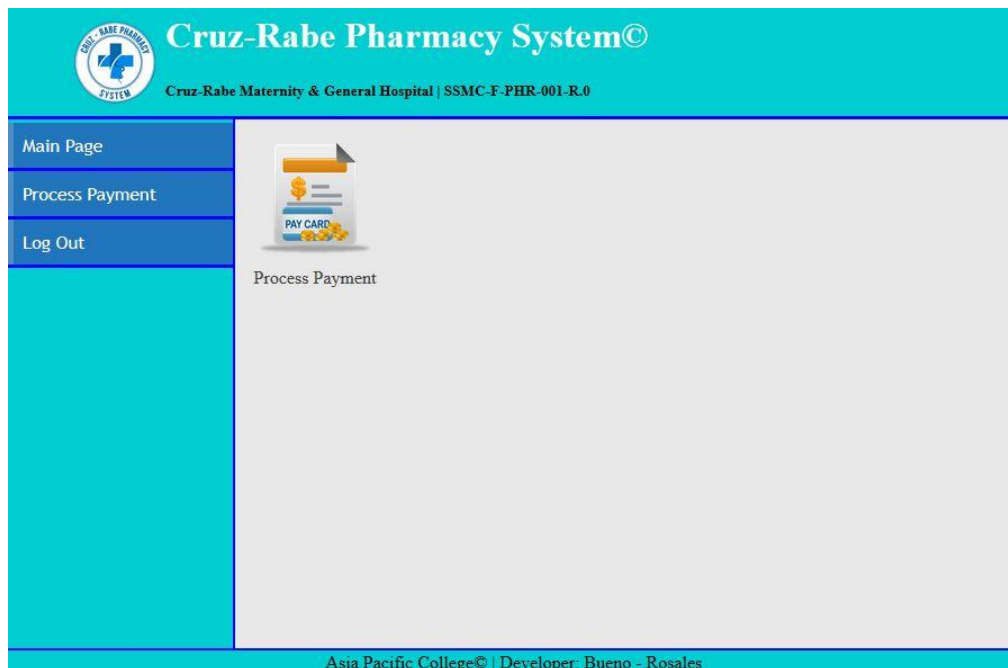
Admin Page



Pharmacy Page



Cashier Page



Software Interfaces

- Windows 10 or Later
- Internet Browser (Google Chrome, Mozilla Firefox, etc.)
- PHP
- MySQL
- XAMPP Control Panel

Change Management Plan

Introduction

The Change Management Plan was created for the Cruz-Rabe Pharmacy System Project in order to set expectations on how the approach to changes will be managed, what defines a change, the purpose and role of the change control board, and the overall change management process. All stakeholders (Client, Project Team, Adviser, Consultant) will be expected to submit or request changes to the CRPS Project in accordance with this Change Management Plan and all requests and submissions will follow the process detailed herein.

Change Management Approach

The Change Management approach for the CRPRS Project will ensure that all proposed changes are defined, reviewed, and agreed upon so they can be properly implemented and communicated to all stakeholders. This approach will also ensure that only changes within the scope of this project are approved and implemented.

The Change Management approach is not to be confused with the Change Management Process which will be detailed later in this plan.

The Change Management approach consists of three areas:

- Ensure changes are within scope and beneficial to the project
- Determine how the change will be implemented
- Manage the change as it is implemented

The Change Management process has been designed to make sure this approach is followed for all changes. By using this approach methodology, the CRPRS Project Team will prevent unnecessary change from occurring and focus its resources only on beneficial changes within the project scope.

Definitions of Change

There are several types of changes which may be requested and considered for the CRPRS Project. Depending on the extent and type of proposed changes, changes project documentation and the communication of these changes will be required to include any approved changes into the project plan and ensure all stakeholders are notified.

Types of changes include:

Scheduling Changes: changes which will impact the approved project schedule. These changes may require fast tracking, crashing, or re-baselining the schedule depending on the significance of the impact.

Budget Changes: changes which will impact the approved project budget. These changes may require requesting additional funding, releasing funding which would no longer be required, or adding to project or management reserves. May require changes to the cost baseline.

Scope Changes: changes which are necessary and impact the project's scope which may be the result of unforeseen requirements which were not initially planned for. These changes may also impact budget and schedule. These changes may require revision to WBS, project scope statement, and other project documentation as necessary.

The project manager must ensure that any approved changes are communicated to the project stakeholders. Additionally, as changes are approved, the project manager must ensure that the changes are captured in the project documentation where necessary. These document updates must then be communicated to the project team and stakeholders as well.

Change Control Board

The Change Control Board (CCB) is the approval authority for all proposed change requests pertaining to the CRPRS Project. The purpose of the CCB is to review all change requests, determine their impacts on the project risk, scope, cost, and schedule, and to approve or deny each change request.

The following chart provides a list of the CCB members for the CRPRS Project:

Name	Position	CCB Role
Carmelita D. Buenaflor	Project Client	CCB Chair
Carl Dominique P. Bueno	Project Manager	CCB Member
Glen Roy D. Rosales	Project Analyst	CCB Member
Jayvee Cabardo	Project Adviser	CCB Co-chair
Alfred Calimbo	Project Consultant	CCB Co-chair
Manuel Calimlim	Project Consultant	CCB Co-chair

As change requests are submitted to the CRPRS Project Manager by the project team/stakeholders, the Project Manager will log the requests in the change log and the CCB will convene every other Friday to review all change requests. For a change request to be approved, all CCB members must vote in favor. In the event more information is needed for a particular change request, the request will be deferred and sent back to the requestor for more information or clarification. If a change is deemed critical, an ad hoc CCB meeting can be called in order to review the change prior to the next scheduled bi-weekly CCB meeting.

Roles and Responsibilities

The following are the roles and responsibilities for all change management efforts related to the CRPS Project:

Project Client:

- Approve all changes to budget/funding allocations
- Approve all changes to schedule baseline
- Approve any changes in project scope
- Chair the CCB

Project Manager:

- Receive and log all change requests from project stakeholders
- Conduct preliminary risk, cost, schedule, scope analysis of change prior to CCB
- Seek clarification from change requestors on any open issues or concerns
- Make documentation revisions/edits as necessary for all approved changes
- Participate on CCB

Project Team/Adviser/Consultants:

- Submit all change requests on standard organizational change request forms
- Provide all applicable information and detail on change request forms
- Be prepared to address questions regarding any submitted change requests
- Provide feedback as necessary on impact of proposed changes
- Gives advice what step should take to have a proper process
- Participate on CCB

Change Control Process

The Change Control Process for the CRPRS Project will follow the organizational standard change process for all projects. The project manager has overall responsibility for executing the change management process for each change request.

- 1) Identify the need for a change **(Stakeholders)** – Change requestor will submit a completed change request form to the project manager.
- 2) Log change in the change request register **(Project Manager)** – The project manager will keep a log of all submitted change requests throughout the project's lifecycle.
- 3) Evaluate the change **(Project Manager, Team, Requestor)** – The project manager will conduct a preliminary analysis on the impact of the change to risk, cost, schedule, and scope and seek clarification from team members and the change requestor.
- 4) Submit change request to CCB **(Project Manager)** – The project manager will submit the change request, as well as the preliminary analysis, to the CCB for review.

5) Obtain Decision on change request (**CCB**) – The CCB will discuss the proposed change and decide whether or not it will be approved based on all submitted information.

6) Implement change (**Project Manager**) – If a change is approved by the CCB, the project manager will update and re-baseline project documentation as necessary.

Quality Plan

Introduction

This document specifies the standards, responsibilities and specification of activities to ensure the quality and feasibility of the project. Quality goals and plans are integrated with overall strategic plans of the sponsored organization. As the projects, Cruz-Rabe Pharmacy Request System, consists of applicable procedures, applicable workmanship standards, the measurement tolerances acceptable, the description of the material standards and so forth

Quality plan is also represented with other relevant document.

Quality plans is defined as:

- Specific documents that are relevant to guarantee standards for further procedure and operation.
- Implementation should be able to meet the project objectives.
- Suitable testing, inspection, examination, and audit programs at appropriate stages.
- A documented procedure for changes and modifications to a quality plan as a process is improved.

Project Contractual Information

Project:	Cruz-Rabe Pharmacy System
Project Number:	106
Program Coordinator:	Mrs. Carmelita Buenaflor
Principal Investigator(s):	Mr. Manuel Sebastian Sanchez

Scope of Work and Quality Objectives

Scope of Work

Pharmacy System is intended for pharmacists to use in their service that assists patients' drug requests that is prescribed by a doctor. The patients will present their prescription given by the doctor into the nurse that will be processed by the pharmacist. The pharmacist will do request of orders that will be paid upon the cashier and billing section. Once the orders are paid, the orders will be ready to dispense to the patient. Alternatively, the Pharmacy Requests will be automated and the data will be on a database for data warehouse. On discharging In-Patients will be provided with their records as fast as possible. The stocks they took will be listed down on their records in real time. Therefore, in paying their bills, the process will take lesser time. This scheme will ease the work of the auditing staff and improve the discharging process of patients.

Quality Requirements

Software evaluation
Reviewing deliverables
Project testing (client and subjects)
Having feedbacks and reviews
Error and Bug reports

Project Organization

Project Organization

Project Manager(s):	Carl Dominique Bueno
Task Manager(s):	Glen Roy Rosales
Quality Assurance:	Carl Dominique Bueno
Other Team Members:	none
Subcontractors:	none
User Community:	Mrs. Carmelita Buenaflor (Chief Pharmacists/Client)
Technical Reviews:	Mr. Jayvee Cabardo (project adviser) Mr. Manuel Calimlim (project consultant) Mr. Alfred Calimbo (project consultant)

Project Duration and Scheduling

Project Duration and Scheduling

Start Date: June 13, 2016 (*starting from MSYSADD1*)

Completion Date: December 14, 2016 (*end of CSPROJ2*)

Scheduling of Activities

Deliverables

Deliverables

Deliverables specified for the project include:

- (i) An acceptable Quality Plan
- (ii) An acceptable Data Management Plan
- (iii) An acceptable Project Documentation including models (tables & diagrams)
- (iv) An acceptable Project Plan
- (v) An acceptable Work Breakdown Statement
- (vi) An acceptable Statement of Work Document
- (vii) An acceptable Gantt Chart and Activity List Model
- (viii) An acceptable Scope and Vision Document
- (ix) An acceptable Software Requirements Specification Document
- (x) An acceptable Change Management Plan
- (xi) An acceptable Project Progress Reports

Document and Record Control

Project documents, progress reports, data models and software variables on previous and current works:

INTSDEV, MSYSADD1 and MCSPROJ2 are compiled and distributed to GIT repository, OneNote, APC Wiki and Bluemix Cloud.