System Requirements Statement (SRS) –

Hospital Management System

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# Introduction

This document explains the system requirements and scope for developing Hospital Management System.

Hospital Management System could divide the four main parts, Farmer part, Wholesaler part, Admin part and the acknowledgement part.

This document describes the system requirement of the Account part.

# Functional Requirements

The Account part of Hospital Management System has three modules which are divided 13processes described as below.

|  |  |  |
| --- | --- | --- |
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## Reception Module

* Reception and patient interaction is maintained.

* He is also able to view the market prices of products.//

### Registration Process

* Hospital Management System compels to create the account before meeting any doctor.
* When patient creates new account, the function demands four information described as below.

1. Login information
2. Contact Details
3. Previous medical Details

* The Login information

The Login information consists of some items described as below.

1. First Name
2. Last Name
3. E-mail address
4. Age
   * All items are compulsory demanded.
   * UserID

* The UserID should be unique. If the UserID correspond with not case-sensitive to other which is previously registered, the UserID should not be registered as an account.
  + User Type

The User Type falls into three categories described as below.

1. Emergency cases
2. Routine check
3. Patients under recovery

* Contact Details
* The Contact Detail consists of some items described as below.

1. Permanent Address
2. Contact Phone Numbers.
   * All items are compulsory demanded.
   * Permanent Address

* Permanent Address should be filled.
* But only the state should be selected from options.
* The Security Question information

Medical information like what is background, any previous consulting from other doctor. And

1. Selected Question
2. Answer
   * All items are compulsory demanded.
   * Some questions which are difficult to answer for anyone else are prepared in advance.

E.g. which color do you like most?

* + A question should be selected from options by the farmer, and the Answer is registered by the farmer.
* Login information should be entered on one screen, and then farmer information and Security Question information should be entered on another screen.

### Patient Details

* Hospital Management System , should always make entry for new patient who comes for routine check-up, emergency cases(but first taken to check-up,and than details are taken) and patients recovery details.
* The user authentication demands UserID.
  + First, The UserID should be correct.
* If The UserID are not equal to what the user has registered, the user authentication cannot be provided.
  + Second, the User Type linked to the UserID should be "patient".
  + Finally, UserID should be available.
* The Administrator can decide whether the UserID is available or suspended – Refer to the SRS of the Admin part.
* The patient account should be there for so long as the duration decided by Admin.
* Only when the three checks are successfully completed, patient can be placed on respected page.
* The “Farmer Home” provides the some items described as below.

1. A trigger to logout
2. A trigger to update Account
3. A trigger to Change Password
4. A trigger to Search Product
5. A trigger to Publish Product for sale
6. A trigger to Update Product Information
7. A trigger to Delete Product
8. A trigger to Browse existing Market price

### Patient Appoinment

* When system UserID is generated than a entry is developed in the system.
  + First, system user enters their UserID for the system.
  + Next, if patient is new than as per doctor’s availability the patient is given token number.
  + After, that the patient details are forwarded to the allotted doctor as per the availability .
  + The Doctor should ask the details of patient whether the patient entered is right or not.
* As a consequence, The Doctor will do the diagnosis .
  + Then, the patient is given the necessary inputs.
* If the Answer is not correct, otherwise, the correct Answer is demanded for user again.
  + In that case, Of course, farmer couldn’t get the new password.

### Doctors Appointment

* As per the request received from patient in advance the appointment should be fixed.
* Therefore, as per availability of doctor from the schedule the appointment should be fixed.
* The function demands the UserID for authentication.
  + And as per the allotted time the patient should be there.
  + Doctor should verify the patient by UserID.

### Update Account Process

* E-Farming System should provide the function which makes the account updated for farmer.
* The information farmer could update is described below.

1. Login information
2. User information
3. Security Question Information

* The Login information

The updatable items as described below.

1. First Name
2. Last Name
3. E-mail address
   * All items are compulsory demanded, but updating is optional.

* The User information

The updatable items as described below.

1. User Name
2. User Phone No
3. E-mail address
4. Permanent address
   * All items are compulsory demanded, but updating is optional.

* The Security Question information

The updatable items as described below.

1. Selected Question
2. Answer
   * All items are compulsory demanded, but updating is optional.

### Search product

* Search conditions are described as below.

1. Product category
2. Price range

### Publish product for sale

* Publish products requirements are described as below.

1. Product category
2. Price
3. Product name
4. Quantity
5. Photos

* Farmer can see market prices before publishing products.

### Update product information

* After publishing the product the farmer can only update following contents.

1. Product quantity
2. Product price.

### Delete product information

• After Publishing if farmer wants to remove some products then he can delete the product.

### Browse existing product Price

• Farmer could see the information of existing products.

#### Doctor Module

### Account Creation Process

* E-Farming System compels to create the account before using it. So, E-Farming System should provide the function which makes farmer creates new account.
* When farmer creates new account, the function demands four information described as below.

1. Login information

2.Contact Details

3.Security Question Information

4.Payment information.

* The Login information

The Login information consists of some items described as below.

5.UserID

6.Password

7.First Name

8.Last Name

9.E-mail address

10.User Type

* + All items are compulsory demanded.
  + UserID
* The UserID should be unique. If the UserID correspond with not case-sensitive to other which is previously registered, the UserID should not be registered as an account.
  + Password
* The Password has constrains which makes the Password consists of more than or equal 8 and less than or equal 16 characteristics including characters described as below.

1.Numeric figure (at least one)

2.Capital alphabet (A-Z)(at least one)

3.Small alphabet (a-z)(at least one)

4.Special character (#, $, %, &, etc.) (at least one)

* The Password is masked by dummy characters. The re-entering Password is demanded.
* The Password must be encrypted in e-Farming System.
  + User Type

The User Type falls into three categories described as below.

1.Farmer

2.Wholesaler

3.Administrator

* The User Type defines also three types of user; " Wholesaler user", "Wholesaler user", and "Administrator user”.
* In an Account Creation Process, the user can select Wholesaler.
* No one could select The Administrator, because Administrator is implemented to e-Farming System in advance.
* Contact Details
* The Contact Detail consists of some items described as below.

1.Permanent Address

2.Contact Phone No

* + All items are compulsory demanded.
  + Permanent Address
* Permanent Address should be filled.
* But only the state should be selected from options.
* The Security Question information

The Security Question information is needed when Wholesaler lost their Password. This information consists of two items described as below.

1. Selected Question
2. Answer
   * All items are compulsory demanded.
   * Some questions which are difficult to answer for anyone else are prepared in advance.

E.g. which color do you like most?

* + A question should be selected from options by the Wholesaler, and the Answer is registered by the Wholesaler.
* Login information should be entered on one screen, and then Wholesaler information and Security Question information should be entered on another screen.

### Login Process

* E-Farming System always compels Wholesaler authentication before using itself except when a new account is successfully created.
* The user authentication demands UserID and Password. The UserID and the Password should be checked in three ways.
  + First, The UserID and the Password should be existed and correct.
* If The UserID and the Password are not equal to what the user has registered, the user authentication cannot be provided.
  + Second, the User Type linked to the UserID should be "user".
* When the User Type is " Wholesaler ", user can be placed on “Wholesaler Home”.
  + Finally, UserID should be available.
* The Administrator can decide whether the UserID is available or suspended – Refer to the SRS of the Admin part.
* If user is rejected, user authentication is not provided for Wholesaler.
* The Wholesaler account should alive for so long as the duration decided by Admin.
* Only when the three checks are successfully completed, Wholesaler can be placed on respected page.
* The “Wholesaler Home” provides the some items described as below.

1. A trigger to logout
2. A trigger to update Account
3. A trigger to Change Password
4. A trigger to Search Product
5. A trigger to Publish Product for sale
6. A trigger to Update Product Information
7. A trigger to Delete Product
8. A trigger to Browse existing Market price

### Forgot Password Process

* When Wholesaler lost their Password, the recovery method should be provided by e-Farming system.

The recovery method is described as below.

* + First, Wholesaler enters their UserID for e-Farming System.
  + Next, E-Farming System demands the Answer which has been registered since when the Account was created.
  + Only when the Answer is correct, Wholesaler get the new password by E-mail which also has been registered since when the Account was created.
  + The new password is automatically generated by e-Farming System.
* Of course, the new password should consist of more than or equal 8 and less than or equal 16 characteristics including at least a numeric figure, a capital alphabet, a small alphabet, and a special character.
* As a consequence, The Wholesaler could get the user authentication using the new password.
  + Then, the Wholesaler had better change the new password manually.
* If the Answer is not correct, otherwise, the correct Answer is demanded for Wholesaler again.
  + In that case, Of course, Wholesaler couldn’t get the new password.

### Change Password Process

* When Wholesaler wants to change their Password, the measure should be provided by e-Farming System.
* Therefore, E-Farming System should provide the function which is available after getting the Wholesaler authentication.
* The function demands the current password and the new password.
  + Of course, the new password should consist of more than or equal 8 and less than or equal 16 characteristics including at least a numeric figure, a capital alphabet, a small alphabet, and a special character.
  + The current password and the new password are masked by using dummy characters.
  + The new password is demanded to enter twice to avoid a typing error.
* Only when the current password is correct, Wholesaler could change their Password.
* When the current password is changed into new password, E-Farming System compels Wholesaler authentication again.

### Update Account Process

* E-Farming System should provide the function which makes the account updated for Wholesaler.
* The information Wholesaler could update is described below.

1. Login information

2. User information

3. Security Question Information

* The Login information

The updatable items as described below.

1. First Name
2. Last Name
3. E-mail address
   * All items are compulsory demanded, but updating is optional.

* The User information

The updatable items as described below.

1. User Name
2. User Phone No
3. E-mail address
4. Permanent address
   * All items are compulsory demanded, but updating is optional.

* The Security Question information

The updatable items as described below.

1. Selected Question
2. Answer
   * All items are compulsory demanded, but updating is optional.

#### Search Product

• Search conditions are described as below.

1. Product category

2. Price range

• As the result of searching Requirements, Wholesaler could see the list of products which are available for sale.

1. Product name

2. Price

3. Quantity

4. Photos

#### Buy Product

• To buy the product followings are the condition

1. Product category

2. Price range

3. Product Quantity

4. Product Name

**2.2.8 Payback Process**

• In payback process system following are the conditions

1. If somehow order is not fulfil.

2. If wholesaler is not satisfied with product.

**2.2.9 Cancel Order**

• Before paying Wholesaler can cancel the order in following condition

1. If the product does not fulfil the requirement.

2. If price goes out of his budget.

Browse existing product Price

• Wholesaler could see the information of existing product**s.**

#### Admin Module

**•** Administratorshould be responsible for following activities**,**

### Registration Process

* Hospital Management System keeps a record of the patient.
* The patient is register using first name ,last name, age, e-mail address, address, Contact details.
  + First, The correct first name , last name ,age and email -address .
* All should be verified by sending verification text/mail that you are registration is done.
  + Second, the Contact details and Address.
* The Admin should also keep the system updated so that if any emergency than it would be easy to contact for further processing.
  + Third, the User Type linked to the UserID should be "Admin".
* When the User Type is "Admin", user can be placed on “Admin Home”.
  + Finally, UserID should be available.
* The Administrator can decide whether the UserID is available or suspended.
* If user is rejected, user authentication is not provided for system user.
* The Admin account should alive for so long as the duration decided by Admin.
* Only when the three checks are successfully completed, Admin can be placed on respected page.
* The “Admin Home” provides the some items described as below.

1. A trigger to logout
2. A trigger to update Account
3. A trigger to Change Password
4. A trigger to Search Product
5. A trigger to Publish Product for sale
6. A trigger to Update Product Information
7. A trigger to Delete Product
8. A trigger to Browse existing Market price

### Login System

* Admin should be responsible for the entire system to keep it up to date.
* The records of patients ,doctors etc. should be maintained everyday.

### 2.3.4 Password System

* The system authentication is maintained and records are kept preserved.
* The entries ,data etc. is maintained by the admin with a specific password that is know to him, so that system details are not copied by any illegal means.

### 2.3.5 Transaction Details

* The Admin has to keep daily information of the transactions done on each day.
* Its , the responsibility of Admin so that he updates the bill to specific patient in his UserID.
* The UserID and the diagnosis done by the prescribed doctor should also be maintained.
* Weekly report should be maintained of the payment done .

### 2.3.6 Log Entry

* Hospital Management System keeps records of all the doctors .
* Admin makes a entry for every doctor which patients he consulted and major operations he has done.
* Admin keeps in records of the nurse’s allotted by the doctor to the paitent.
* Also, keep the daily patient records and medicines ,other operational requirements should be maintained, so for further changes it needs.

#### Patient Records

• Admin keep records for each patient with respect to UserID

• Admin gives access to specific doctor who has handled the patient.

• The reports its medication for each patient is recorded.

#### Accounts Management

• Admin should able to manage all the accounts with following activities,

1. Enable accounts

2. Disable accounts

#### Message Acknowledgement Module

• In following conditions acknowledgement to be send

1. After completion of successful registration.
2. After every successful transaction (buy, sale).
3. Now the messages are being sent by using email but in future we can have mobile sms.

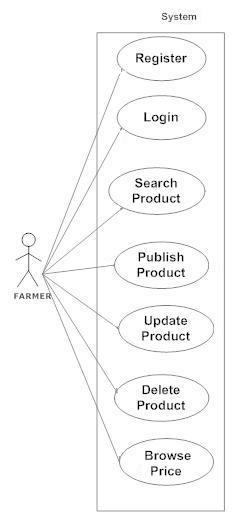
#### 2.5 Use Case Diagram

**Admin:**

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*Fig. Use case diagram for admin*

1. In Admin use case diagram Admin is the Actor.
2. Admin can handle following use cases:
3. Login
4. Report Generation
5. Controls account

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*Fig. Use case diagram for Reception*

**Reception:**

1. In Reception use case diagram Reception is the Actor.
2. Reception can handle following use cases:
3. Register
4. Patient Details
5. Patient Appointment
6. Doctor Appointments
7. Payment Process
8. Emergency Process
9. Update Product
10. Delete Product
11. Browse Product Price

**Doctor:**

****

*Fig. Use case diagram for Doctor*

1. In Doctor use case diagram Doctor is the Actor**.**
2. Doctor can handle following use cases:
3. Patient details
4. Diagnosis
5. Tests needed
6. Emergency
7. Prescription