HOSPITAL SYSTEM

CS4310 Software Engineering I: Requirements

Team Members:

* + Bao-Huy Tran
  + James Nguyen
  + Joel Santiago
  + Ronie Mendoza

Instructor: Prof. Ted Billard

**Patient**

Patient ID, Name, Age, Sex, Address, DOB, SSN, List of Appointments, Payment

**Doctor**

Doctor ID, Name, Age, Address, Department, Salary

**Why this Hospital System**

For medical facility owners who are looking to provide their staff with an easy to use patient management system, and their patients with uninterrupted access to all of their medical information, appointment history, and simple payment options. The Hospital System is a local and web-based management tool that allows hospitals to consolidate their patient data into one secure and accessible location. Where other management systems fail in providing significant backend service, the Hospital System succeeds by offering easy setup to new facilities, but also provides accommodating transition tools for facilities already relying on other systems.

**Create New Account**

Hospital Staff can create a new Account for the patient, which will include the patient's name, age, sex, address, DOB, and SSN.

**Admit New Patient**

Hospital checks to see if a patient already has an account with the Hospital and creates one if they don't. Admitting the patient means adding the patient to the list of patients in the Hospital's private listing.

**Appointments**

Those that have an account with the hospital can set up multiple appointments with the hospitals for checkups of different kinds. The user can add as many appointments as they want with the hospital, provided the appointments don't conflict in time. The user receives an Appointment ID from the hospital for them to keep.

**Check In**

Patients with accounts can check in to a prior appointment. Patients check in with their Patient ID, Appointment ID, and password.

**Check Out**

After an appointment, patients check out of the hospital. Patients check out with their Patient ID, Appointment ID, and password.

**Display Account Information**

Users with an account at the hospital can access the account information they signed up with viewing name, age, sex, address, DOB, SSN and both their past list of appointments and their current list of appointments.

**Account Management**

Users with an account at the hospital can change some of their account information that they signed up with. They can change everything they can view in `Display Account Information` except, age, DOB, and SSN, as well as any patient history.

**Patient History**

A user with an account at the hospital can view their past history. Past history includes their patient information, as well as their past list of appointments and past diagnosis.

**Patient Diagnosis**

Patients can view the official diagnosis that a Doctor gives them.

**Schedule Surgery**

Doctors are able to gather patient information, including contact and insurance information, and schedule surgeries well ahead of time. They can enter the patient ID to have the form auto fill with information on file. Here they can also assign a specific surgery a Procedure Code and Diagnosis Code. They can also add in a brief description as to what the surgery will consist of as well as any specific details pertaining to the patient.

**View Surgeries**

Doctors and nurses are able to view upcoming and already passed surgeries. Here they can enter a patient ID and have the charts pull up automatically. There is a quick way to schedule a surgery if necessary as well. The charts display Procedure code, Diagnosis code, surgery date, name of procedure as well as who the attending surgeon will be. The also have the option of confirming the date of the surgery to ensure that it gets saved in the system and that the date and time are recorded and locked out.

**Email**

Patients and Doctors can email each other using the integrated database of users for easy networking

**Change Rooms**

Staff can check whether or not a room is available based on maximum number of occupancy for that room. User can request rooms based of the same thing.

**List of Allowed Visitors**

Patients are allowed a list of visitors expressed verbally or by their emergency contact information.

**Pharmacy**

Patient provides the prescription ID to the Pharmacy in the hospital. Hospital searches their inventory for the medicine and returns some medicine that includes prescription ID, name, amount, prescribing physician, and expiration date.

**Conclusions**

The Hospital System provides full management functionality to new and existing clients while also providing their patients with immediate access to all of their critical data.

Give us a call and let us show you how we can help improve your company!

|  |  |  |
| --- | --- | --- |
| **Field** | **Value** | **Comment** |
| User Name | jjones | Patient's User Name |
| Password | Jones | Patient's and Admin's Password |
| First Name | Jimmy | Patient's First Name |
| Middle Name | Jack | Patient's Middle Name |
| Last Name | Jones | Patient's Last Name |
| Sex | Male | Patient's Sex |
| Date of Birth | 32203 | Patient's Date of Birth |
| Age | 25 | Patient's Age |
| Social Security | 123-45-678 | Patient's Social Security |
| Address | 123 Main St. | Patient's Address |
| City | Hayward | Patient's City |
| State | CA | Patient's State |
| Zip | 94540 | Patient's Zip |
| Home Phone | 510-510-5105 | Patient's Home Phone Number |
| Mobile Phone | 105-105-1051 | Patient's Mobile Phone Number |
| Email | jjj@gmail.com | Patient's Email Address |
| Account | 1000 | Patient's Account Number |
| ID# | 123456789 | Patient's ID Number |
| Provider | Insurance Co. | Patient's Insurance Provider |
| Account | 192837465 | Patient's Insurance Account Number |
| Last Name | Jones | Emergency Contact's Last Name |
| First Name | Jenny | Emergency Contact's First Name |
| Relationship | Wife | Emergency Contact's Relationship |
| Home Phone | 510-510-5105 | Emergency Contact's Home Phone Number |
| Mobile Phone | 105-105-1050 | Emergency Contact's Mobile Phone Number |
| ID | 25 | Patient's Appointment ID |
| Date | 3/3/13 | Patient's Appointment Date |
| Time | 5:00 PM | Patient's Appointment Time |
| Physician | Smith, M | Patient's Appointment Physician |
| Notes | Broken Leg | Patient's Appointment Notes |
| Rx. ID | 17 | Patient's Prescription ID |
| Date | 1/1/13 | Patient's Prescription Date |
| Notes | Back Pain | Patient's Prescription Notes |
| Amount | XXX mg | Patient's Prescription Amount |
| Physician | Doe, Jane | Patient's Prescribing Physician |
| Enter Recipient Email | name@hospital.com | Patient's Doctor's Email |
| Enter CC | other@hospital.com | CC'd Email |
| Enter BCC | jjj@gmail.com | BCC'd Email |
| Enter Subject | Subject | Patient's Email Subject |
| Enter Body Here | Email Text | Patient's Email Body |
| Select a Doctor to add | Doe, Jane | Patient's Doctors Email |
| Select Location | Hospital Name | Hospitals Location |
| Preferred | 9:30 AM | Patient's Preferred Appointment Time |
| Alternate Time | 2:00 PM | Patient's Alternate Appointment Time |
| Reason for Appointment | Reason | Patient's Reason for Appointment |
| Test | Cholesterol | Patient's Test being performed |
| Results | Good Levels | Patient's Test Results |
| Notes | Healthy for Age | Patient's Test Result Notes |
| Card Number | 4455 6677 8899 1100 | Patient's Billing Card Number |
| Expiration | 4/17 | Patient's Card Expiration Date |
| Statement Date | 3/13 | Patient's Statement Date |
| Date Due | 4/13 | Patient's Statement Due Date |
| Account# | 123456 | Patient's Payment Account Number |
| Amount Owed | $500.00 | Patient's Amount Owed |
| Amount Paid | $0.00 | Patient's Amount Paid |
| Cost of procedures | $500.00 | Patient's Cost of Procedures |
| Patient Responsibility | $500.00 | Patient's Payment Responsibility |
| Service Dates | 3/3/13 | Patient's Service Dates |
| Total Charges | $500.00 | Patient's Total Charges Due |
| Total Adjustments | $0.00 | Patient's Total Adjustments |
| Total Payments | $0.00 | Patient's Total Payments Due |
| Questions | Questions | Patient's Billing Questions |
| Admin ID# | 112233445 | Admin ID Number |
| Reason for Admission | Needs Medical Care | Patient's Reason for Admission |
| Admission Date | 3/5/13 | Date of Admission |
| Room Number | 2701 | Patient's Room Number |
| Choose New Room | 2201 | Patient's New Room Number |
| Reason for Move | Noisy Neighbor | Patient's Reason for Room Move |
| Search by Category | Tools | Hospital Supply Category |
| Search by Manufacturer | MedBrand | Hospital Supply Manufacturer |
| Search by Name | Syringe | Hospital Supply Name |
| Availability | Available | Hospital Supply Availability |
| Amount | 10 | Hospital Supply Amount Needed |
| Exp. Date | 1/1/13 | Prescription Expiration Date |
| Details | Medicine 1 | Prescription Details |
| Availability | Unavailable | Prescription Availability |
| Inpatient | Checkbox | Patient Surgery Type |
| Outpatient | Checkbox | Patient Surgery Type |
| Guarantor | Person A | Patient's Guarantor |
| Procedure | Appendectomy | Surgery being performed |
| Surgery Date | 1/1/12 | Date of Surgery |
| Confirmed | Checkbox | Verification if surgery date is confirmed |
| Description | Invasive | Short description of surgery |
| Procedure Code | 77777 | Code given to type of surger |
| Diagnosis Code | 00001 | Code given for type of diagnosis |
| Attending Physician | Doe, Jane | Overseeing Surgeon |
| Assistant | Nurse A | Listed assistant for surgery |
| Private Care Physician | Smith, M | Primary doctor for general health |
| Policy # | 115234 | Identifier given for specific person on insurance |
| Group # | 6162432 | Identifier given for specific employer group |
| Subscriber Name | Jimmy Jones | Name on insurance account |
| Insurance Phone # | 555-888-0199 | Insurance contact number |
| Authorization | Checkbox | Verification if preauthorization has been given |
| Authorization # | 1234564321 | Code given to authorize insurance claim |
| Number of Days Approved | 14 | Amount of days covered by insurance claim |
| Contact Person | Stone, M | Name of Contact at Insurance Company |































