1. **Use case name**
    - Log into the website

Participating actors

- Patient, nurse, doctor, billing

Flow of events

1. A user will interact with the websites' interface.
2. A prompt will come up to make an account to login.
3. The user will have to enter their position (patient, doctor, etc).
4. The name of the user should be entered.
5. The user must create login info (username, password).
6. The website will finalize the login info for the user.

Entry condition

- The user(s) must interact with the gui to create an account

---

Exit condition

- The login process will be complete once the user(s) have added the proper info.
- The user should now be able to log into the system.

Quality requirements

- It should take no more than 10 seconds for a user to log in once their account is set up.
-

2. **Use case name**
    - Searching the database

Participating actors

- registrar

Flow of events

1. Registrar accesses the database
2. The registrar should be able to look through all forms/ files
3. Afterwards, the registrar should search for a specific patient.
4. All forms should be properly filled out for the registrar to understand
5. The registrar should then be able to create a file based off of the form
6. The file should be sent back to the database

Entry condition

- Registrar must login

Exit condition

- The registrar should have been able to view the correct file they were looking for
-

Quality requirements

- All forms should be available for the nurse
-

3. **Use case name**
   - Searching the database

Participating actors

- nurse

Flow of events

1. Nurse should login
2. The nurse should look for any files related to a specific patient
3. After finding all files the nurse should navigate to the proper file
4. This file should be pulled up to be viewed
5. If any changes need to be made they should
6. The nurse should save changes and re-upload the file

Entry condition

- The nurse should know which patient file to look for

Exit condition

- Any changes made should be done properly so others can search for the file
-

Quality requirements

- The file that was viewed by the nurse should be available for the doctor to view
-

4. **Use case name**
   - Searching the database

Participating actors

- physician

Flow of events

1. Physician should login
2. The physician should look for any files related to a specific patient
3. After finding all files the physician should navigate to the proper file

4. This file should be pulled up to be viewed
5. If any changes need to be made they should
6. The physician should save changes and re-upload the file

Entry condition

- The doctor should find out the patient name from the nurse

Exit condition

- Any changes made by the doctor should be done properly so others can search for/ view the file
-

Quality requirements

- The form is updated for billing
-

5. **Use case name**
   - Searching the database

Participating actors

- Billing

Flow of events

1. Billing department should login
2. Navigate to the correct patient file
3. Billing should also view any notes from the physician
4. Billing should calculate all charges associated with treatment
5. All charges should be applied to the file
6. The file should be updated for the patient

Entry condition

- Billing department should know which patient file to access

---

Exit condition

- All charges related to any test or procedure should be added to the patient file.
-

Quality requirements

- The form should be finalized for the patient
-

6. **Use case name**

- Answer form questions

Participating actors

- Patient

Flow of events

1. Patient accesses the website
2. The patient must look for check - in/ medical history forms
3. The patient should first enter personal info (name, d.o.b, etc.).
4. Followed by entering any necessary medical history info
5. All information should be verified before submission
6. The form(s) are submitted

Entry condition

- Patient must be logged in

Exit condition

- All other users (doctor, nurse, etc.) should be able to view patient info
-

Quality requirements

- There should be a minimal delay between the form submission, and people viewing the form
-

7. **Use case name**
   - Create new patient file

Participating actors

- Registrar

Flow of events

1. Registrar logs in
2. Searches for the form(s) the patient filled out
3. Registrar opens a new file for the patient
4. Registrar puts the patient info in the new file
5. The file should be verified that all info is correct
6. The registrar should save the new file

Entry condition

- Registrar must access the form the patient filled out

Exit condition

- The registrar has a more precise form for the doctor and nurse to view.
-

Quality requirements

- Doctors and nurses should be able to see patient file immediately
-

8. **Use case name**
   - Record notes regarding patient

Participating actors

- Nurse

Flow of events

1. The nurse should take patient measurements (weight, height).
2. The nurse should also check vitals
3. These results will be recorded
4. The nurse should view the initial report from the registrar
5. The nurse will perform an evaluation with the patient
6. The final results should be recorded in the database

Entry condition

- The nurse should be logged in to add/ update notes

Exit condition

- The nurse should have all of their notes recorded from their patient evaluation
-

Quality requirements

- The nurse's notes should be ready as soon as possible for the doctor to view.
- This should be within 5 minutes of the end of the evaluation.

9. **Use case name**
   - Record notes regarding patient

Participating actors

- Physician

Flow of events

1. The doctor should login
2. The doctor should pull up and view the nurses notes
3. The doctor should go over the patient form/ nurses' notes with the patient

4. The doctor should perform their own evaluation
5. The doctor should add their own notes/ update notes.
6. The notes should be sent back to the database for billing to view.

Entry condition

- The doctor should be aware of which patient info to view

Exit condition

- The doctor should be able to properly update the patient's file on/ to the website.
-

Quality requirements

- The final doctor notes should be ready in about 5 minutes for billing to view.

17. **Use case name**
    - GivePreTreament

Participating actors

- nurse

Flow of events

1. Check symptoms of patients
2. Select pretreatment
3. Record pretreatment
4. Send pretreatment price to billing
5. Add pretreatment to bill

Entry condition

- Logged in as a nurse

Exit condition

- All data is updated

Quality requirements

- Data is updated across all records

18. **Use case name**
    - AdmitPatient

Participating actors

- Nurse

Flow of events

1. Review doctor notes
2. Check box to either admit or not admit patient

3. If patient is admitted enter number of days
    4. Send number of days to billing
5. Update bill with price of stay

Entry condition

- Logged in as nurse

Exit condition

- All data is updated

Quality requirements

- Data is updated across all records

19. **Use case name**
    - EditPatientFile

Participating actors

- Physician

Flow of events

1. Open patient file
    2. Update data
3. Save data to record

Entry condition

- Physician logged in

Exit condition

- All data is updated

Quality requirements

- Data is updated across all records

20. **Use case name**
    - EditPatientFile

Participating actors

- Nurse

Flow of events

1. Open patient file
    2. Update data

3. Save data to record

Entry condition

- Nurse logged in

Exit condition

- All data is updated

Quality requirements

- Data is updated across all records

21. **Use case name**
    - EditPatientFile

Participating actors

- Registrar

Flow of events

1. Open patient file
    2. Update data
3. Save data to record

Entry condition

- Registrar signing in

Exit condition

- All data is updated

Quality requirements

- Data is updated across all records

22. **Use case name**
    - PrecribeMedication

Participating actors

- Physician

Flow of events

1. Physician accesses diagnosis
    2. Physician selects medication to administer to patient
3. Patient record updated to include medication
    4. Medication price sent to billing
5. Medication price added to bill

Entry condition

- Physician is logged in

Exit condition

- Physician receives confirmation from billing that IV has been recorded

---

Quality requirements

- Data is updated across all records

23. **Use case name**
    - PrescribeIV

Participating actors

- Physician, Billing

Flow of events

1. Physician accesses diagnosis
    2. Physician selects IV
3. Patient record updated to include IV
    4. IV sent to billing
5. IV price added to bill

Entry condition

- Physician is logged in

Exit condition

- Physician receives confirmation from billing that IV has been recorded

---

Quality requirements

- Data is updated across all records

24. **Use case name**
    - PrescribeIM

Participating actors

- Physician, Billing

Flow of events

1. Physician accesses diagnosis
    2. A list of possible injections is given to physician based on diagnosis
3. Physician selects injection and administers to patient
    4. Patient records updated with treatment information
5. Injection price sent to billing

6. Injection price added to bill

Entry condition

- Physician is logged in

Exit condition

- Physician receives confirmation from billing that injection has been recorded

---

Quality requirements

- Data is updated across all records

25.**Use case name**

- PrescribeInjection

Participating actors

- Physician, Billing

Flow of events

1. Physician accesses diagnosis
    2. A list of possible injections is given to physician based on diagnosis
3. Physician selects injection and administers to patient
    4. Patient records updated with treatment information
5. Injection price sent to billing
    6. Injection price added to bill

Entry condition

- Physician is logged in

Exit condition

- Physician receives confirmation from billing that injection has been recorded

---

Quality requirements

- Data is updated across all records

Use case name

- MeasureHeight

Participating actors

- Initiated by Nurse, Communicates with Patient

Flow of events

1. The Nurse directs the Patient to take any shoes and hats off, and to stand with their back against the wall.

2. Patient responds by following the directions.

3. The Nurse pulls down measuring device from the ceiling until it touches the Patients head, and records the Height measurement in centimeters.

4. The Nurse types the Height measurement in a text box located within the Patients digital file, and either saves the file or edits another piece of the file.

Entry condition

- The Nurse is logged into the ER Server and has selected the Patient file.

Exit condition

- The Nurse has successfully recorded the Patient height in the digital file and saved the entry OR
- The Nurse has begun updating/editing other data of the Patient.

Quality requirements

- The Nurse's entry is made using number characters with centimeter units, rounded to the nearest 0.1 centimeter.

Use case name

- MeasureWeight

Participating actors

- Initiated by Nurse, Communicates with Patient

Flow of events

1. Depending on the type/age of measuring device, zero the scale.
2. The Nurse directs the Patient to take any shoes and jackets off, to remove items from their pockets, and to stand on the electronic scale.
2. Patient responds by following the directions.
3. The Nurse weighs the Patient, and records the Weight measurement in kilograms.
4. The Nurse types the Weight measurement in a text box located within the Patients digital file, and either saves the file or continues to edit another piece of the file.

Entry condition

- The Nurse is logged into the ER Server and has selected the Patients file.

Exit condition

- The Nurse has successfully recorded the Patient weight in the digital file and either saved the entry or The Nurse has begun updating/editing other data of the Patient.

Quality requirements

- The Nurse's entry is made using number characters with kilogram units, rounded to the nearest 0.1 kilogram.

Use case name

- MeasureVitals

Participating actors

- Initiated by Nurse, Communicates with Patient

Flow of events

1. The Nurse uses a stethoscope to measure the Patients heart rate.
2. The Patient takes deep breaths during the process.
3. The Nurse enters the Patients heart rate into a text box located within the Patients digital file.
4. The Nurse uses a sphygmomanometer to measure the Patients blood pressure.
5. The Nurse enters the Patients blood pressure into a text box located within the Patients digital file.
6. The Nurse uses a thermometer to measure the Patients temperature.
7. The Nurse enters the Patients temperature into a text box located within the Patients digital file.

Entry condition

- The Nurse is logged into the ER Server and has selected the Patients file.

Exit condition

- The Nurse has successfully recorded the Patient heart rate, blood pressure, and temperature in the digital file and either saved the entry or begins updating/editing other data of the Patient.

Quality requirements

- The Nurse's entries are made using number characters with units of mmHg, BPM, and Celcius, rounded to the nearest 0.1 unit.

Use case name

- HematologicLabTest

Participating actors

- Initiated by Physician, Communicates with Patient

Flow of events

1. The Physician gathers everything required for a hematologic lab test.
2. The Physician tells the Patient everything they need to do during the test.
    3. Patient responds by doing as instructed.
4. The Physician collects the results, and stores the data in the Patients digital file in the Tests section.

Entry condition

- The Physician is logged into the ER Server and has selected the Patient file.
- The Physician determines a Hematologic test is required.

Exit condition

- The Physician has successfully finished performing the lab test OR
- An issue occurred during the lab test and it was unsuccessful.

Quality requirements

- The Physician's entry is made in the system after the test is performed, with notes included from the lab test.

Use case name

- RadiologicLabTest

Participating actors

- Initiated by Physician, Communicates with Patient

Flow of events

1. The Physician gathers everything required for a radiologic lab test.
2. The Physician tells the Patient everything they need to do during the test.
    3. Patient responds by doing as instructed.
4. The Physician collects the results, and stores the data in the Patients digital file in the Tests section.

Entry condition

- The Physician is logged into the ER Server and has selected the Patient file.
- The Physician determines a Radiologic test is required.

Exit condition

- The Physician has successfully finished performing the lab test OR
- An issue occurred during the lab test and it was unsuccessful.

Quality requirements

- The Physician's entry is made in the system after the test is performed, with notes included from the lab test.

Use case name

- UrinaryTest

Participating actors

- Initiated by Physician, Communicates with Patient

Flow of events

1. The Physician gathers everything required for a urinary test.
2. The Physician tells the Patient everything they need to do to during the test.
    3. Patient responds by doing as instructed.
4. The Physician collects the results of the test, and records the data in the Patients digital file in the Tests section.

Entry condition

- The Physician is logged into the ER Server and has selected the Patient file.
- The Physician determines a urinary test is required.

Exit condition

- The Physician has successfully finished performing the test OR
- An issue occurred during the test and it was unsuccessful.

Quality requirements

- The Physician's entry is made in the system after the test is performed, with notes included from the test.

Use case name

- StoolTest

Participating actors

- Initiated by Physician, Communicates with Patient

Flow of events

1. The Physician gathers everything required for a stool test.
2. The Physician tells the Patient everything they need to do to during the test.
    3. Patient responds by doing as instructed.
4. The Physician collects the results of the test, and records the data in the Patients digital file in the Tests section.

Entry condition

- The Physician is logged into the ER Server and has selected the Patient file.
- The Physician determines a stool test is required.

Exit condition

- The Physician has successfully finished performing the test OR
- An issue occurred during the test and it was unsuccessful.

Quality requirements

- The Physician's entry is made in the system after the test is performed, with notes included from the test.