Product Requirements

Team: 201661-12-SWEN-261-TEAM-2-Grewp2

Revision Number	Revision Date	Summary of Changes	Author(s)
0.1	09/06/16	Initial revision	Nick Deyette, Kyler Freas, Smruthi Gadenkanahalli, Umang Garg
0.2	09/29/16	Changed the use case template for changing the user's profile information. Patients can no longer change their email. However, Patients can change their contact number and emergency contact numbers.	Nick Deyette
0.3	10/03/16	Updated certain use cases to match what is actually being delivered to the customer. Features that were promised but not delivered will be put in red and will be noted for R2.	Nick Deyette
0.4	10/08/16	Added use case context diagram for R2. Added new uses cases for R2.	Nick Deyette
0.5	10/09/16	Added new use cases for R2	Umang Garg
0.6	10/14/16	Added use cases for R2: 1. Release test results 2. Admit patient to hospital 3. Discharge patient from hospital	Kyler Freas
0.7	10/14/16	Added use cases for R2: 1. Export Information 2. Patient Transfer	Nick Deyette
0.8	11/5/16	Updated minor errors in use cases.	Nick Deyette
0.9	11/29/16	Updated minor errors in use cases.	Kyler Freas, Nick Deyette

Brief problem statement

The project is meant to give hospitals an easy method to manage their daily functions. It will serve as a management product in which hospitals can easily find both patient and employee data. Patients should also be able to schedule appointments and update their data. The end goal is to provide a convenient, straightforward system which improves the connection between patients and hospital employees.

Stakeholders

HAccelerator Board of Directors – oversee the projects funding and expenses. Have vested interest in the proven success of the product but are not involved in the planning and execution.

HAccelerator Product Owner – will act as principle representative for HealthNet product needs. He/she champions the product with the Board of Directors, helps facilitate product decisions and has the ultimate say on when and what features should be released.

Software Engineering Team – is responsible for the day-to-day operations and coordination of all aspects related to the software product's life-cycle. This include, among others: planning and delegation of team roles and responsibilities; elicitation and clarification of requirements; analysis and design; implementation, testing and release of all software components.

Beta Testing Team – represent the target user base for HealthNet. Will be available in later phases of the project to conduct acceptance testing and provide feedback on product release.

Users profile

The target user must:
- Have basic experience using computers and browsing the internet. Has filled out online forms or surveys and may have purchased or sold a product.
- Have a computer with access to the internet
- Have an interest in improving their health by using an online way of interacting with their hospital
- Be willing to share information such as home address and contact information as well as more personal information such as medical history

System requirements

At a high-level this project will be source controlled in SVN, run on Django using python, sqlite and needs to be compatible with the latest browsers.

Although the application needs to be accessible through the internet, deployments and demonstrations for this phase of the project will take place within the RIT Software Engineering environment. To this end, you must understand and document the target platforms from the perspective of the client browser as well as that of the server. Make sure to capture versions or software dependencies, programming languages and hardware specifications that are available for your use and proceed only after you document and confirm these with the customer.

Feature requirements (user stories)

The following list of user stories is neither final nor comprehensive. You must consider it your responsibility to maintain its relevance, clarify any misunderstandings and keep it up-to-date. Any changes must be discussed with the Product Owner for approval.
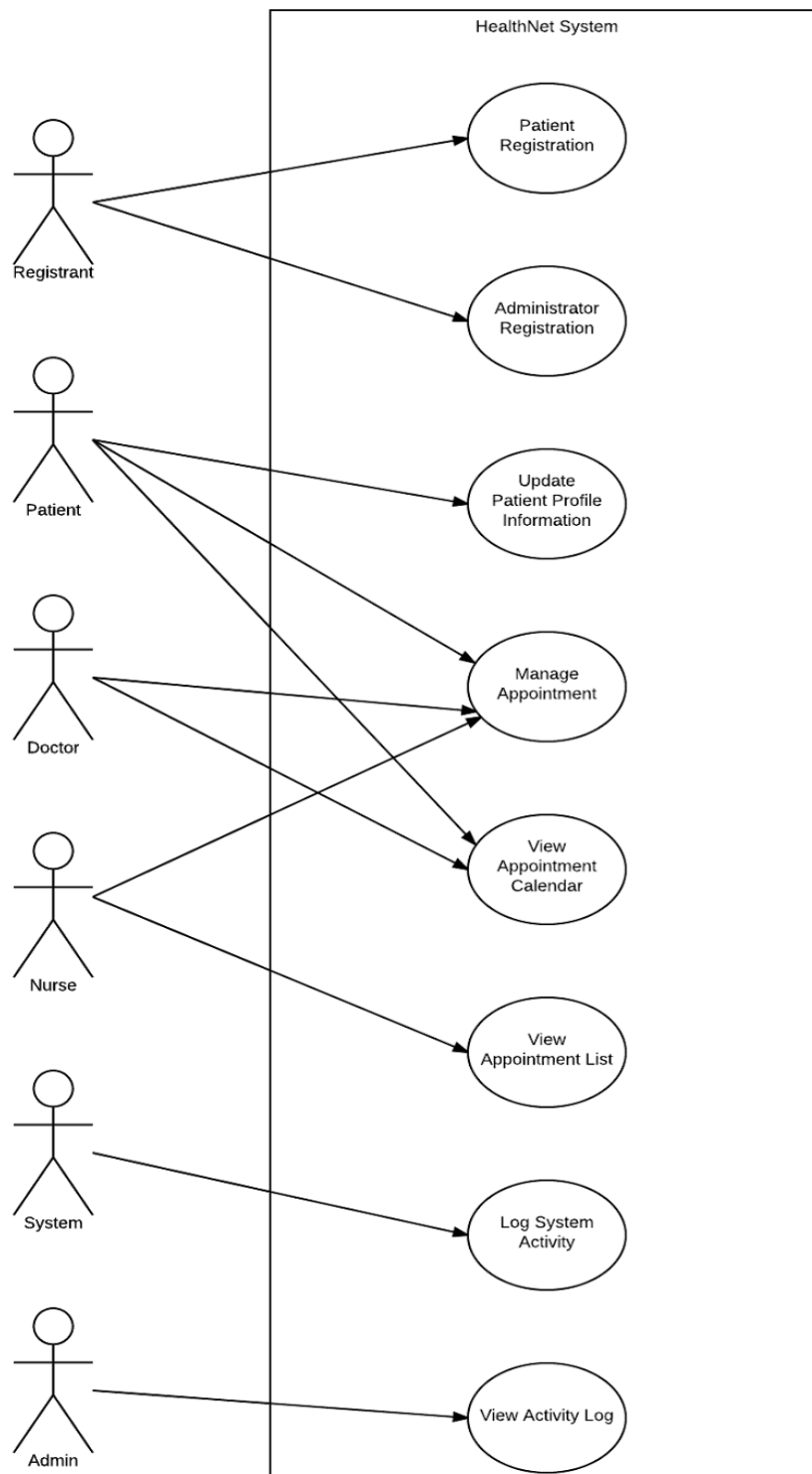
No	User Story Name	Description	Release
1	Patient Registration	Users sign up to become a Patient by providing their personal contact information, proof of insurance and unique login credentials. Additionally, a patient should provide the system with some basic medical profile information, a choice of preferred hospital and emergency contact information (linked to another patient if they are already in the system).	R1 R2
2	Administrator Registration	Doctors, Nurses, and Administrators will be added to the system by other administrators. All information for creating these new accounts will be done through an administrator account.	R1

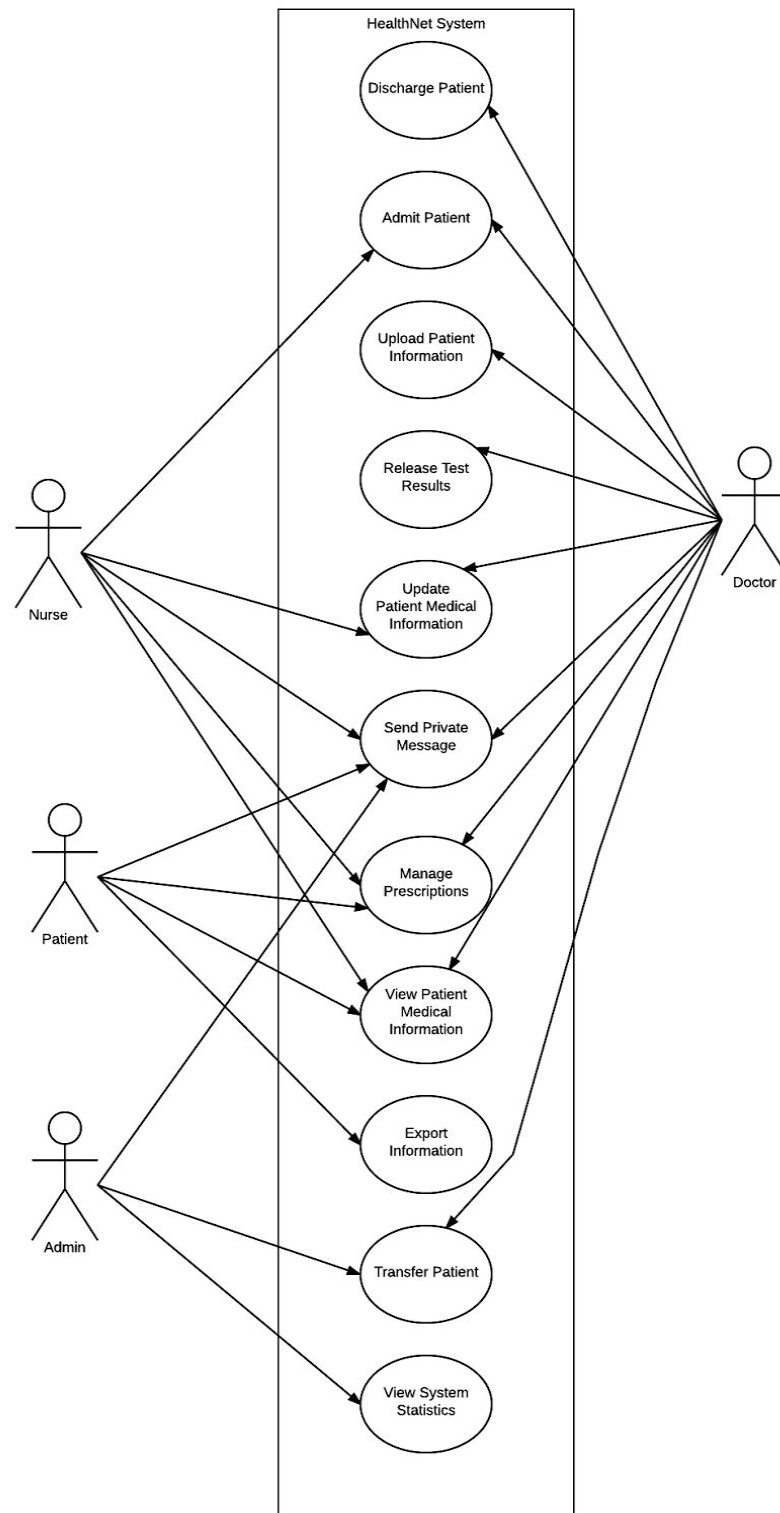| 3	Update Patient Profile Information	Patients can update their profile information.	R1
4	Update Patient Medical Information	Doctors and Nurses can update patient medical information.	R2
5	Export Information	Patients will be able to export their information and their test results from the system with relevant privacy warnings.	R2
6	Create or Update Patient Appointment	Patients, doctors and nurses can create or update an appointment with a doctor and at one of the doctor's available locations. If the patient or doctor already has an appointment at the time selected, then the system will not allow for the appointment.	R1 R2
7	Cancel Patient Appointment	Patients can cancel their existing appointments. Doctors can cancel their existing appointments. Nurses cannot cancel (only modify) existing appointments.	R1
8	Appointment Calendar for Doctors and Patients	Doctors and patients will easily be able to view all of their appointments in a calendar view.	R1
9	Appointment Calendar for Nurses	Nurses will be able to see all appointments for the day and week between Patients and Doctors.	R1
10	Add/Remove Prescriptions	Doctors can add or remove a prescription to a patient record. Nurses can view the prescriptions of patients belonging to the same hospital. Patients can view their prescriptions from their account.	R2

11	Viewing Patient Medical Information, Prescriptions and Tests and Results	Doctors can view all medical information for any patient in the system (regardless of Hospital). Nurses can only view patient medical information in the hospital they work for. Patients can view their tests (pending or completed) and view the corresponding results for those tests that have been released by the doctor. Prescriptions and other non-sensitive information is viewable by the patient without a need for doctor's release.	**R2**
12	Release Test Results	Doctors (within the patient's hospital) can, upon evaluating a patient's test results, release them for view by that patient. Comments may be added to the specific test result for view by the patient.	**R2**
13	Logging System Activity	For security, many actions in the system will be logged for review at a later date. Some examples of actions to be logged include but are not limited to updating of a Patient's information, viewing of a Patient's information/records, and transfers of a Patient from one hospital to another.	**R1**
14	Admission and Discharge to/from Hospital	Doctors and Nurses can admit a patient to the hospital for an extended stay (reasons could be: emergency, observation, surgery, etc.). These are typically unexpected visits but can result from a decision made after a scheduled appointment. This event is recorded by the system. Doctors are the only ones to approve a patient's discharge from the Hospital. This event is recorded by the system.	**R2**
15	Viewing Activity Log	Administrators will be able to view the logs of all system activity for a given time-frame at their hospital. Some examples of this might be: - breakdown of the viewing activity of patient records or by system user - most common system activities (or by user)	**R1** **R2**

		Other important and informative statistics yet to be determined.	
16	Viewing System Statistics	Administrators will be able to view compiled statistics for a given time-frame at their hospital. Some examples of this might be: - number of patients visiting the hospital - average number of visits per patient - average length of stay (from admission to discharge) - most common reasons for being admitted to the hospital - prescription statistics Other important and informative statistics yet to be determined.	**R2**
17	Patient Transfer	Patient can be transferred between hospitals. Transfers can be carried out by either administrators or by doctors (ones who are at the receiving hospital).	**R2**
18	Upload Patient Information	Doctors will be able to upload the results of a patient's tests if needed. Doctors will be able to upload images such as those used in X-Rays to update a patient's record. Uploads are considered as updates to a patient's medical information.	**R2**
19	Send Private Message	Doctors, nurses, patients and administrators can send private messages of limited length via the system.	**R2**

Use case context diagram - R1

HealthNet System

Patient
Registration

Administrator
Registration

Update
Patient Profile
Information

Manage
Appointment

View
Appointment
Calendar

View
Appointment List

Log System
Activity

View Activity Log

Registrant

Patient

Doctor

Nurse

System

Admin

Use case context diagram - R2

HealthNet System

Discharge Patient

Admit Patient

Upload Patient Information

Release Test Results

Update Patient Medical Information

Send Private Message

Manage Prescriptions

View Patient Medical Information

Export Information

Transfer Patient

View System Statistics

Nurse

Patient

Admin

Doctor

Use case description

Use Case Number:	*UC-01*
Use Case Name:	*Patient Registration*
Overview:	*Registrant shall provide personal, medical, and emergency contact information to the System upon registering and becoming a Patient.*
Actor(s):	*Registrant*
Pre-condition(s):	*- System has been setup and configured.* *- System is running and open for registrations.* *- Registrant has accessed website via URL*

Scenario Flow:	*Main (success) Flow:*
	
	1. *Registrant selects option to register*
	2. *System requests personal, medical, login and contact information*
	3. *Registrant provides information:*
	   ○ *Username*
	   ○ *Email*
	   ○ *Password*
	   ○ *First Name*
	   ○ *Last Name*
	   ○ *Contact Number*
	   ○ *Emergency Contact Number*
	   ○ *Insurance Provider*
	   ○ *Insurance Number*
	   ○ *Age*
	   ○ *Weight*
	   ○ *Height*
	   ○ *Address*
	   ○ *City*
	   ○ *State*
	   ○ *Zip Code*
	   ○ *Preferred Hospital*

	4. *System verifies required information is provided.* ● *If information is invalid System displays message. Return to Step 2*
Alternate Flows:	*Alternate Flow #1: After Step 2 in success scenario System will display the option to Cancel the registration process. The following steps would occur:* *1.* *Registrant selects option to cancel during registration* *2.* *System returns to main screen* *3.* *Registrant is not saved to the system*
Post Condition:	*Registrant completed registration. System stores Registrant's information.*

Use Case Number:	*UC-02*
Use Case Name:	*Administrator Registration*
Overview:	*Registrant shall provide personal and contact information to the System upon registering and becoming a Administrator.*
Actor(s):	*Administrator*
Pre-condition(s):	*- System has been setup and configured.* *- System is running and open for registrations.* *- Administrator has accessed website via URL* *-Administrator is a valid user with administrative power*

Scenario Flow:	*Main (success) Flow:*
	
	1. *Administrator selects option to create a new user*
	2. *System prompts for new user information, such as:*
	   a. *User Type*
	   b. *Username*
	   c. *First and Last Name*
	   d. *Email*
	   e. *Hospital*
	   f. *Password*
	3. *Administrator enters new user information*
	4. *System confirms that all required information is entered*
	   a. *If information is valid, system displays message. Return to step 2.*
	5. *System creates a new user*

Alternate Flows:	*Alternate Flow #1: After Step 2 in success scenario System will display the option to Cancel the registration process. The following steps would occur:* ● *Administrator selects option to cancel during registration* ● *System returns to main screen* ● *New user is not created*
Post Condition:	*Administrator completed creation of the new user. System stores the new user's information.*

Use Case Number:	*UC-03*
Use Case Name:	*Update Patient Profile Information*
Overview:	*Patients can update their profile information.*
Actor(s):	*Patient*
Pre-condition(s):	*- System has been setup and configured.* *- System is running and ready to accept a request to update profile information* *- Patient has accessed website via URL* *- Patient should have an account*
Scenario Flow:	*Main (success) Flow:* 1. *Patient selects option to view their profile information* 2. *Patient selects option to edit their profile information* 3. *System allows Patient to edit:* ○ *Contact Number* ○ *Emergency Contact Number* ○ *Address* ○ *City* ○ *State* ○ *Zip Code*
Alternate Flows:	*Alternate Flow #1: After Step 2 in success scenario System will display the option to Cancel the modification process. The following steps would occur:* ● *Patient selects option to cancel during modification* ● *System returns to main screen* ● *Patient information is not saved* *Alternate Flow #2: After Step 2 in success scenario, Patient enters invalid information. The following steps would occur:* ● *System would prompt for new information again*
Post Condition:	*Patient information is saved*

Use Case Number:	*UC-04*
Use Case Name:	*Create Patient Appointment*
Overview:	*Patients, doctors and nurses can create an appointment with a doctor and at one of the doctor's available locations.* *If the patient or doctor already has an appointment at the time selected, then the system will not allow for the appointment. If the appointment is in the past, the system will now allow for the appointment.*
Actor(s):	*User*
Pre-condition(s):	*- System has been setup and configured.* *- System is running and ready to accept a request to create an appointment* *- User has accessed website via URL* *- User has an account*

Scenario Flow:	*Main (success) Flow:*
	
	1. *User selects option to create an appointment*
	2. *System checks if user is a Patient, Doctor or Nurse*
	   a. *If user is a nurse, go to step 3*
	   b. *If user is a patient, go to step 3*
	   c. *If user is a doctor, go to step 6*
	3. *System shows a list of doctors*
	4. *User selects a doctor with which to make the appointment*
	5. *If user is a patient, go to step 8. Else, continue to step 6.*
	6. *System shows list of patients*
	7. *User selects patient for which to make appointment*
	8. *User inputs a start date and time and an end date and time*
	9. *User confirms creation of appointment*

Alternate Flows:	*Alternate Flow #1: After Step 2 in success scenario System will display the option to Cancel the creation process. The following steps would occur:* ● *User selects option to cancel during creation* ● *System returns to main screen* ● *Appointment is not created* *Alternate Flow #2: After step 9 in success scenario, if one of the following is true, the system will not allow for the appointment to be created:* 1. *End date/time occurs before start date/time*

	2. *Doctor or patient has a conflicting appointment scheduled during the selected time* 3. *Appointment start date/time or end date/time is in the past*
Post Condition:	*The given Patient has an appointment at the given date and time with the given Doctor*

Use Case Number:	*UC-05*
Use Case Name:	*Update Appointment*
Overview:	*Patients, doctors and nurses can create an appointment with a doctor and at one of the doctor's available locations.* *If the patient or doctor already has an appointment at the time selected, then the system will not allow for the appointment. If the updated start date/time or end date/time is in the past the system will not allow for the appointment to be updated.*
Actor(s):	*User*
Pre-condition(s):	*- System has been setup and configured.* *- System is running and ready to accept a request to update an appointment* *- An appointment has been created* *- User has accessed website via URL* *- User has an account*

Scenario Flow:	*Main (success) Flow:*
	
	 1. *User selects an appointment to update*
	 2. *System checks if user is a Patient, Doctor or Nurse*
	  a. *If user is a nurse, go to step 3*
	  b. *If user is a doctor OR patient, go to step 5*
	 3. *System shows list of doctors*
	 4. *User selects a doctor*
	 5. *User has option to select a change to appointment:*
	  a. *Select a new doctor (if user is a nurse or patient)*
	  b. *Select a new patient (if user is a nurse)*
	  c. *Select a new start date/time*
	  d. *Select a new end date/time*
	 6. *User confirms their changes to the appointment*

Alternate Flows:	*Alternate Flow #1: After Step 2 in success scenario System will display the option to Cancel the update process. The following steps would occur:* ● *User selects option to cancel during update* ● *System returns to view appointment screen* ● *Appointment is not updated*

	Alternate Flow #2: After step 5 in success scenario System will display a calendar of all the appointments. If a user selects a past appointment, the following steps would occur: ● *Patient clicks on past appointment* ● *Details for past appointment are displayed, but the user can not update it* *Alternate Flow #3: After Step 8, User inputs invalid information. The following steps would occur:* ● *System re-prompts for new appointment information*
Post Condition:	*Appointment is updated*

Use Case Number:	*UC-06*
Use Case Name:	*Cancel Appointment*
Overview:	*Patients can cancel their existing appointments.* *Doctors can cancel their existing appointments.* *Nurses cannot cancel (only modify) existing appointments.*
Actor(s):	*User*
Pre-condition(s):	*- System has been setup and configured.* *- System is running and ready to accept a request to cancel an appointment* *- An appointment has been created* *- User has accessed website via URL* *- User has an account* *- User must be a patient or doctor*

Scenario Flow:	*Main (success) Flow:*
	    1. *User selects an appointment they wish to cancel*
	    2. *System shows confirmation to cancel the appointment*
	    3. *User confirms cancellation*
	        a. *If User denies the cancellation, System sends user to main screen*
	    4. *System removes appointment*

Alternate Flows:	*-*
Post Condition:	*The appointment is cancelled*

Use Case Number:	*UC-07*
Use Case Name:	*Viewing Appointment Calendar (for doctor or patient)*
Overview:	*Doctors and patients will easily be able to view all of their appointments in a calendar view.*
Actor(s):	*User*
Pre-condition(s):	*- System has been setup and configured.* *- System is running and ready to accept a request to show the calendar* *- User has accessed website via URL* *- User has an account* *- User must be a patient or doctor*

Scenario Flow:	*Main (success) Flow:*
	
	  1. *User selects option to view their appointment calendar*
	  2. *System shows appointment calendar for User*

Alternate Flows:	*-*
Post Condition:	*The calendar for the specific user is shown*

Use Case Number:	*UC-08*
Use Case Name:	***Viewing Appointment Calendar (for nurse)***
Overview:	***Nurses will be able to see all appointments for the day and week between Patients and Doctors.***
Actor(s):	***User***
Pre-condition(s):	*- System has been setup and configured.* *- System is running and ready to accept a request to show the calendar* *- User has accessed website via URL* *- User has an account* *- User must be a nurse*

Scenario Flow:	*Main (success) Flow:*
	
	     1. *User selects option to view their appointment calendar*
	     2. *System shows all appointments in the User's appointment for current week*

Alternate Flows:	*-*
Post Condition:	***The calendar week for hospital is shown***

Use Case Number:	*UC-09*
Use Case Name:	*Logging System Activity*
Overview:	*For security, many actions in the system will be logged for review at a later date.* *Some examples of actions to be logged include but are not limited to updating of a Patient's information, viewing of a Patient's information/records, and transfers of a Patient from one hospital to another.*
Actor(s):	*System*
Pre-condition(s):	*- System has been setup and configured.* *- System is running and ready to accept a request to log activity* *- User has accessed website via URL* *- User has triggered an action on the System which has successfully completed*
Scenario Flow:	*Main (success) Flow:* 1. *System accepts the request to log activity* 2. *System determines the type of action performed* 3. *System determines current date/time, user type of user performing action, username of user performing action and hospital the user is performing the action at* 4. *System records the action that was performed along with the date/time, user type, username and hospital*
Alternate Flows:	-
Post Condition:	*The action is successfully logged by the system*

Use Case Number:	*UC-10*
Use Case Name:	*Viewing Activity Log*

Overview:	*Administrators will be able to view the logs of all system activity for a given time-frame at their hospital. Some examples of this might be:*
	    - breakdown of the viewing activity of patient records or by system user
	    - most common system activities (or by user)
	
	Other important and informative statistics yet to be determined.

Actor(s):	*Admin*
Pre-condition(s):	*- System has been setup and configured.* *- System is running and ready to accept a request to view activity log* *- Admin has accessed website via URL* *- User is an admin*

Scenario Flow:	*Main (success) Flow:*
	
	    1. *Admin selects option to view activity log*
	    2. *System displays complete activity log (date/time, type of action, user if applicable) for all actions*
	    3. *Admin is able to select filters for the logs*
	         a. *Admin selects option to apply filters*
	         b. *System displays all the types of filters and prompts user to select which types they wish to apply*
	         c. *Admin selects the types of filters they wish to apply*
	         d. *System prompts for the values of the filters the Admin chose to apply*
	         e. *Admin inputs the values for the types of filters they chose*
	         f. *System displays all logs that fit into the filter*

Alternate Flows:	*Alternate Flow #1: After Step 3 in success scenario System will display the option to Cancel the filter process. The following steps would occur:*
	
	    ● *Admin selects option to cancel*
	    ● *System returns to complete log view page*
	    ● *Log filter is not completed*

Post Condition:	*Admin is able to view the complete activity log or the logs that fit into the filters they selected*

Use Case Number:	*UC-11*
Use Case Name:	**Update Patient Medical Information**
Overview:	**Doctors and Nurses can update patient medical information.**
Actor(s):	**User**
Pre-condition(s):	**- System has been setup and configured.** **- System is running and ready to accept a request to update medical information** **- User has accessed website via URL** **- User should have an account** **- Patient should exist** **- User must be a Doctor or Nurse**
Scenario Flow:	**Main (success) Flow:** 1. **User selects option to update a patient's medical information** 2. **System displays all possible patients that the User can update** 3. **User selects patient whose medical information they wish to update** 4. **System displays the medical information and allows User to update the information** 5. **User updates information** 6. **User selects the submit option** 7. **System redirects User to home page**
Alternate Flows:	**Alternate Flow #1: After Step 2 in success scenario System will display the option to Cancel the modification process. The following steps would occur:** ● **User selects option to cancel during modification** ● **System returns to main screen** ● **Patient information is not saved**
Post Condition:	**Patient medical information is saved**

Use Case Number:	*UC-12*
Use Case Name:	*View System Statistics*
Overview:	*Administrators will be able to view compiled statistics for a given time-frame at their hospital. Some examples of this might be:* *-number of patients visiting the hospital* *-average number of visits per patient* *-average length of stay (from admission to discharge)* *-most common reasons for being admitted to the hospital* *-prescription statistics* *-most common activities* *Other important and informative statistics yet to be determined.*
Actor(s):	*Admin*
Pre-condition(s):	*- System has been setup and configured.* *- System is running and ready to accept a request to display statistics* *- Admin has accessed website via URL* *- Admin should have an account*

Scenario Flow:	*Main (success) Flow:*
	
	1. *Admin selects option to view system statistics*
	2. *System prompts user for a time frame*
	3. *Admin selects a time frame*
	4. *System displays the statistics listed above (more may be added) to the Admin*
	5. *If the Admin wishes to view prescription statistics:*
	    a. *Select the view prescription statistics option*
	    b. *System prompts for a time frame, medication and doctor*
	    c. *Admin selects a time frame, medication and/or doctor*
	    d. *System displays prescription statistics*

Alternate Flows:	*Alternate Flow #1: After Step 2 in success scenario System will display the option to Cancel the modification process. The following steps would occur:* ● *Admin selects option to cancel* ● *System returns to main screen* *Alternate Flow #2: During step 3 in success flow, if Admin leaves the time frame blank, the following steps would occur:* ● *System would notify Admin of invalid time frame entered and prompt for another time frame*

Post Condition:	-

Use Case Number:	*UC-13*
Use Case Name:	*Manage Prescriptions*
Overview:	*Doctors can add or remove a prescription to a patient record.*
Actor(s):	*Doctor*
Pre-condition(s):	*- System has been setup and configured.* *- System is running and ready to accept a request to Add/Remove prescription* *- Doctor has accessed website via URL* *- Doctor should have an account* *- Patient should exist*
Scenario Flow:	*Main (success) Flow:* 1. *Doctor selects option to Manage Prescriptions* 2. *System displays all possible patients whose prescriptions the Doctor can add/remove* 3. *Doctor selects patient whose prescription he/she wishes to add/remove* 4. *System prompts the Doctor to add/remove prescription of the selected patient* 5. *Doctor adds/removes prescription to/from the patient record* 6. *Doctor selects the confirm option* 7. *System redirects Doctor to home page*
Alternate Flows:	*Alternate Flow #1: After Step 2 in success scenario System will display the option to Cancel the modification process. The following steps would occur:* ● *Doctor selects option to cancel* ● *System returns to main screen* ● *Prescription information is not saved*
Post Condition:	*Patient prescription is saved*

Use Case Number:	*UC-14*
Use Case Name:	*Send Private Message*
Overview:	*Doctors, nurses, patients and administrators can send private messages of limited length via the system.*
Actor(s):	*User*
Pre-condition(s):	*- System has been setup and configured.*
	- System is running and ready to accept a request to send a private message
	- User has accessed website via URL
	- User should have an account
	- User must be a doctor, nurse, patient or admin
Scenario Flow:	*Main (success) Flow:*
	1. *User selects option to send a private message*
	2. *System prompts for the user to which to send the message to*
	3. *User selects the user to send a message to*
	4. *System prompts for the message*
	5. *User enters the message and submits*
Alternate Flows:	*Alternate Flow #1: After Step 2 in success scenario System will display the option to Cancel the modification process. The following steps would occur:*
	● *User selects option to cancel message*
	● *System returns to main screen*
	● *Message is not sent*
Post Condition:	*Message is sent to the request user*

Use Case Number:	*UC-15*
Use Case Name:	*Upload Patient Information*
Overview:	*Doctors can upload the results of a patient's tests if needed.* *Doctors can also upload images such as those used in X-Rays to update a patient's record.* *Uploads are considered as updates to a patient's medical information.*
Actor(s):	*Doctor*
Pre-condition(s):	*- System has been setup and configured.* *- System is running and ready to accept a request to upload patient information* *- Doctor has accessed website via URL* *- Doctor should have an account* *- Patient should exist*
Scenario Flow:	*Main (success) Flow:* 1. *Doctor selects option to Upload Patient Information* 2. *System displays all possible patients whose test results the Doctor can upload* 3. *Doctor selects patient whose test results he/she wishes to update* 4. *System prompts the Doctor to upload test results and any other images such as X-Rays of the selected patient* 5. *Doctor uploads information to the patient record* 6. *Doctor selects the confirm option* 7. *System redirects Doctor to home page*
Alternate Flows:	*Alternate Flow #1: After Step 2 in success scenario System will display the option to Cancel the modification process. The following steps would occur:* ● *Doctor selects option to cancel during upload* ● *System returns to main screen* ● *Prescription information is not saved*
Post Condition:	*Patient information is uploaded*

Use Case Number:	*UC-16*
Use Case Name:	*Export Information*
Overview:	*Patients will be able to export their information and their test results from the system with relevant privacy warnings.*
Actor(s):	*Patient*
Pre-condition(s):	*- System has been setup and configured.* *- System is running and ready to accept a request to export information* *- Patient has accessed website via URL* *- Patient should have an account* *-Patient is authenticated*

Scenario Flow:	*Main (success) Flow:*
	
	1. *Patient selects option to view the Medical Profile*
	2. *The option below are displayed to the Patient*
	    a. *Profile Information*
	    b. *Medical Information*
	    c. *Prescriptions*
	    d. *Test Results*
	3. *After observing the privacy warning, the Patient selects the option to export their information*
	4. *System generates a PDF containing the Patient's information*
	5. *PDF is downloaded to the Patient's computer, labeled such as "X_Medical_Information", where X is the Patient's username*

Alternate Flows:	*-*
Post Condition:	*Patient Profile and Test Results are written to a file and downloaded*

Use Case Number:	*UC-17*
Use Case Name:	*Patient Transfer*
Overview:	*Patient can be transferred between hospitals.* *Transfers can be carried out by either administrators or by doctors (ones who are at the receiving hospital).*
Actor(s):	*Doctor, Hospital, Admin*
Pre-condition(s):	*- System has been setup and configured.* *- System is running and ready to accept a request to transfer patient* *-Patient is admitted at an Hospital*
Scenario Flow:	*Main (success) Flow:* 1. *Doctor/Admin chooses the Transfer Patient option* 2. *System displays the possible Patients for transfer* 3. *Doctor/Admin selects the Patient to transfer* 4. *The option to choose new hospital is displayed* 5. *Doctor/Admin chooses the new hospital and selects the Submit option*
Alternate Flows:	*Alternate Flow #1: After Step 2 in success scenario System will display the option to Cancel the transfer process. The following steps would occur:* ● *Doctor/Admin selects option to cancel during transfer* ● *System returns to main screen* ● *Transfer is not completed*
Post Condition:	*Patient is transferred to a new Hospital*

Use Case Number:	*UC-18*
Use Case Name:	*View Patient Medical Information*
Overview:	*Doctors can view all medical information for any patient in the system (regardless of Hospital).*
	Nurses can only view patient medical information in the hospital they work for.
	Patients can view their tests (pending or completed) and view the corresponding results for those tests that have been released by the doctor.
	Prescriptions and other non-sensitive information is viewable by the patient without a need for doctor's release.
Actor(s):	*User*
Pre-condition(s):	*- System has been setup and configured.*
	- System is running and ready to accept a request to view patient medical information
	- User has accessed website via URL
	- User should have an account
	- Patient should exist
Scenario Flow:	*Main (success) Flow:*
	1. *User selects option to view patient medical information*
	2. *If the User is a Patient:*
	a. *System will display all prescriptions, non-sensitive information and tests (and results if released) for themselves*
	3. *If the User is a Nurse:*
	a. *System will display all patients in the Nurse's hospital and prompt for patient the Nurse wishes to view*
	b. *Nurse selects the patient whose medical information they wishes to view*
	c. *System displays all prescriptions, non-sensitive information and tests (and results of released and not released tests) for that patient*
	4. *If the User is a Doctor:*
	a. *System will display all patients regardless of their hospital and prompt for the patient the Doctor wishes to view*
	b. *Doctor selects the patient whose medical information they wish to view*

	c. **System displays all prescriptions, non-sensitive information and tests (and results of released and not released tests) for that patient**
Alternate Flows:	**-**
Post Condition:	**-**

Use Case Number:	*UC-19*
Use Case Name:	*Release Test Results*
Overview:	*Doctors (within the patient's hospital) can, upon evaluating a patient's test results, release them for view by that patient.* *Comments may be added to the specific test result for view by the patient.*
Actor(s):	*User*
Pre-condition(s):	*- System has been setup and configured.* *- System is running and ready to accept a request to release test results to a patient* *- User has accessed website via URL* *- User should have an account* *- Doctor and patient associated with test result exist* *- User is a Doctor*
Scenario Flow:	*Main (success) Flow:* *1. User selects option to release results of a test* *2. System displays a confirmation for the action* *3. User confirms the action* *4. The test results are released to their associated patient*
Alternate Flows:	*Alternate Flow #1: At step one in success scenario System will display the option to Cancel the process. The following steps would occur:* *● User selects option to cancel* *● System returns to main screen* *Alternate Flow #2: At step two in success scenario System will give the option to abort the operation. If selected, the following steps would occur:* *● User selects option to cancel* *● System does not release the test results*
Post Condition:	*Test results have been released to a patient*

Use Case Number:	*UC-20*
Use Case Name:	*Admit patient to hospital*
Overview:	*Doctors and Nurses can admit a patient to the hospital for an extended stay (reasons could be: emergency, observation, surgery, etc.). These are typically unexpected visits but can result from a decision made after a scheduled appointment. This event is recorded by the system.*
Actor(s):	*User*
Pre-condition(s):	*- System has been setup and configured.* *- System is running and ready to accept a request to admit a patient* *- User has accessed website via URL* *- User has an account* *- Patients, Nurses and Doctors exist in the System* *- User is a Doctor or a Nurse*
Scenario Flow:	*Main (success) Flow:* 1. *User selects option to admit a patient* 2. *System displays all patients in the system, all hospitals in the system, and input for reason for admission* 3. *User selects a patient to admit* 4. *User selects the hospital to admit the patient to* 5. *User inputs a reason for the patient's admission* 6. *User submits the request to admit the patient* 7. *System displays a confirmation for the action* 8. *User confirms the action* 9. *The selected patient is admitted to the selected hospital* 10. *System logs the admission details*
Alternate Flows:	*Alternate Flow #1: At step one in success scenario System will display the option to Cancel the process. The following steps would occur:* ● *User selects option to cancel* ● *System returns to main screen* *Alternate Flow #2: At step six in success scenario System will give the option to abort the operation. If selected, the following steps would occur:* ● *User selects option to cancel* ● *System does not admit the patient*
Post Condition:	*A patient is admitted to User's current hospital*

Use Case Number:	*UC-21*
Use Case Name:	*Discharge patient from hospital*
Overview:	*Doctors are the only ones to approve a patient's discharge from the Hospital. This event is recorded by the system.*
Actor(s):	*User*
Pre-condition(s):	*- System has been setup and configured.* *- System is running and ready to accept a request to discharge a patient* *- User has accessed website via URL* *- User has an account* *- Patients and Doctors exist in the System* *- Patient(s) have been admitted to User's hospital* *- User is a Doctor*
Scenario Flow:	*Main (success) Flow:* 1. *User selects option to discharge a patient* 2. *System displays all patients admitted to User's hospital* 3. *User selects a patient* 4. *User selects option to discharge the selected patient* 5. *System displays confirmation for the action* 6. *User confirms the action* 7. *Selected patient is discharged* 8. *System logs the discharge details*
Alternate Flows:	*Alternate Flow #1: At step one in success scenario System will display the option to Cancel the process. The following steps would occur:* ● *User selects option to cancel* ● *System returns to main screen* *Alternate Flow #2: At step five in success scenario System will give the option to abort the operation. If selected, the following steps would occur:* ● *User selects option to cancel* ● *System does not discharge the patient*
Post Condition:	*A patient is discharged from their hospital*

Use Case Number:	*UC-22*
Use Case Name:	*User Change Password*
Overview:	*User can change their password.*
Actor(s):	*User*
Pre-condition(s):	*- System has been setup and configured.* *- System is running and ready to accept a request to change password* *- User has accessed website via URL* *- User should have an account*

Scenario Flow:	*Main (success) Flow:*
	
	    1. *Patient selects option to change their password*
	    2. *System prompts for old password*
	        a. *If entered password is correct, change to new password*
	        b. *If entered password is incorrect, notify user and do not update password*

Alternate Flows:	*Alternate Flow #1: After Step 2 in success scenario System will display the option to Cancel the process. The following steps would occur:*
	
	    ● *User selects option to cancel*
	    ● *System returns to main screen*
	    ● *User password is not updated*

Post Condition:	*User password is updated*