Product Requirements

Team: *Your Super Cool Name*

Revision Number	*Revision Date*	*Summary of Changes*	*Author(s)*
0.1	*9/6/2016*	*Initial Creation of Product Requirements*	*Ryan Connors, Kyle Ki, Trevor Powers, Wenxuan Zhou, Juasheem Sultan*
.9	*9/7/2016*	*Document has been completed with projected requirements at the start of the project.*	*Ryan Connors* *Kyle Ki* *Wenxuan Zhou* *Juasheem Sultan* *Trevor Powers*
1.0	*10/4/2016*	*Document has been updated in anticipation of R1*	*Ryan Connors,* *Kyle Ki* *Wenxuan Zhou* *Juasheem* *Trevor Powers*
1.10	*10/18/2016*	*Document has been updated for R2. Changes have been made to the Use Case Context Diagram, and the Use Case Stories*	*Ryan Connors,* *Kyle Ki* *Wenxuan Zhou* *Juasheem* *Trevor Powers*

1 Brief problem statement

We have been chartered to create the project HealthNet by a funding group named HAccelerator. The goal of this platform is to enable hospitals around the nation to manage

both their employees and their patients. A successful implementation of the platform should make it simple and easy for patients to sign up for the service, so that Hospitals are able to manage appointments, procedures, and other patient related tasks in the most efficient manner possible.

The HealthNet platform's main goal is to provide insightful data on how hospitals in the network are being managed by providing statistics on each Hospital. Additionally HealthNet aims to aid hospitals in being smoothly run by providing services for scheduling, registering patients, and transferring patients between Hospitals.

The most ideal product is one with an emphasis placed on ease of use, that clearly states all and any information in an organized manner, and whose navigation is easy and self-explanatory. Ultimately this product should improve understanding and communication between patients and the hospital.

2 Stakeholders

HAccelerator Board of Directors – oversee the project's 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 principal 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.

Hospital Staff - represent a large portion of the people that will be using the software on a day to day bases. This population includes Doctors, Nurses, and Hospital Administrators who will use HealthNet to organize and optimize the day to day operations in the Hospital.

Patients - represent the other portion of end users. The goal of HealthNet is to become a powerful tool in connection patients to their hospitals. Patients will be using HealthNet to

schedule appointments and store their health records, making HealthNet a big part of their lives.

3 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.

Users:

- Patient: The patient will only have access to the information that is in their account which includes their private information as well as any notes or messages written by a doctor or nurse.
- Doctor/Nurse: The doctor and nurse will have access to patient files that will allow them to view necessary information about the patient. The doctor and nurse may also leave notes that include a diagnosis, instructions for taking medicine, post care notes, scheduling appointments, etc.
- Administrator: The administrator will have access to all files on the system which includes files on the staff and patients. This access is necessary for managing employees and seeing their current progress on their patients.

4 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.

The target systems for the project are machines running recent versions of Windows, OS X,
and Linux systems that can run the most recent version of google chrome or similar modern browser that has continuous support from their developers.

On the server side, the hardware must be capable of using python, Django 1.9.1 and Sqlite 3. The server also must be able to accommodate the load that is to be expected of an application that would have the userbase that Health Net is expected to have.

5 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.

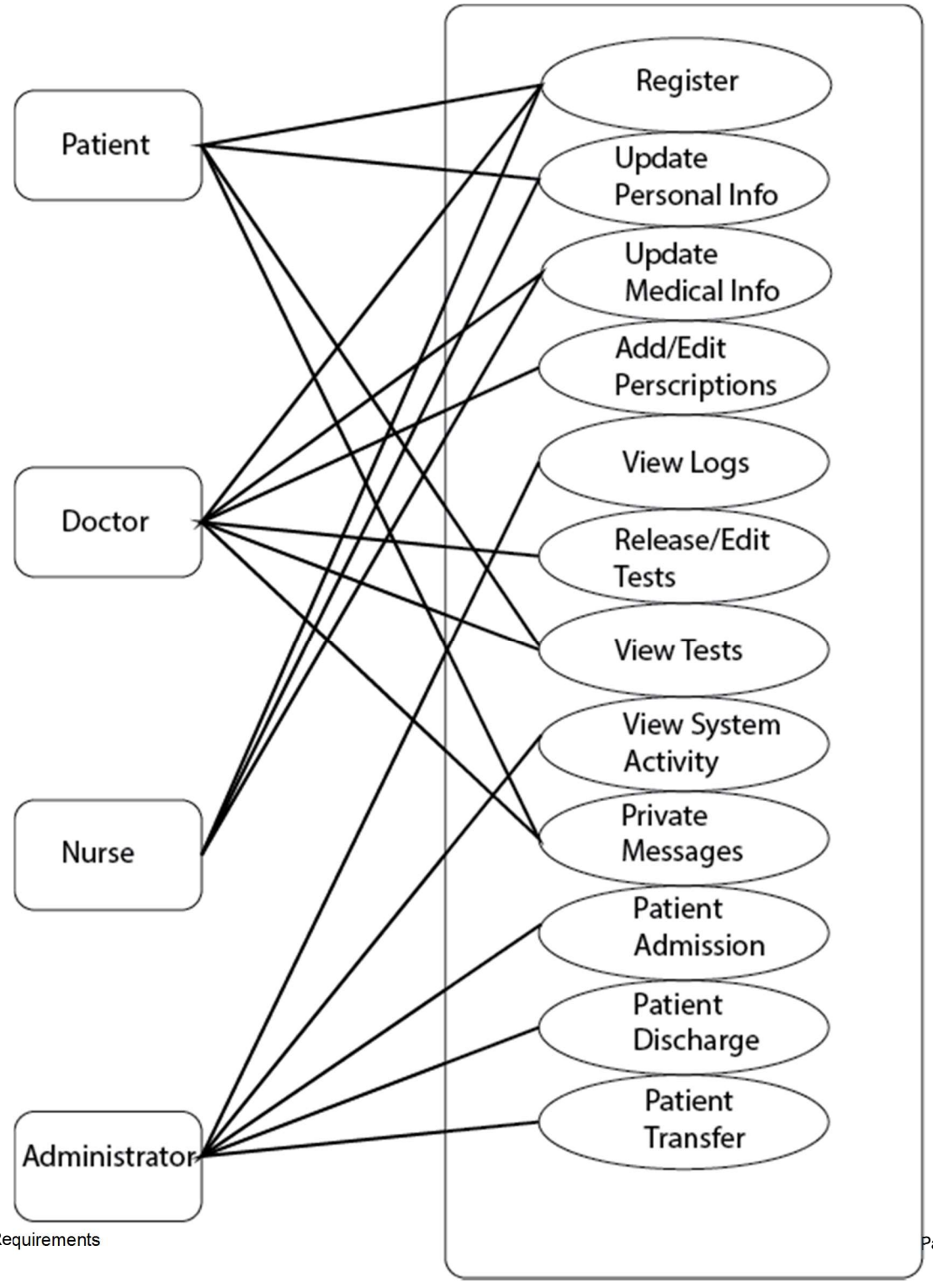
No.	User Story Name	Description	Release
1	Patient Registration	Users sign up to become a Patient by providing their personal contact information, proof of insurance and unique login credentials. Additionally, a patient should provide the system with some basic medical profile information, a choice of preferred hospital and emergency contact information (linked to another patient if they are already in the system).	**R1**
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.	**R1**
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.	**R1**

		If the patient or doctor already has an appointment at the time selected, then the system will not allow for the appointment.	
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	Doctors and patients will easily be able to view all of their appointments in a calendar view. Nurses will be able to see all appointments for the day and week between Patients and Doctors.	**R1**
9	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.	**R1**
10	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.	**R1**
11	Release Test Results	Doctors (within the patient's hospital) can, upon evaluating a patient's test results, release them for view by that patient.	**R2**

		Comments may be added to the specific test result for view by the patient.	
12	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 Patients information/records, and transfers of a Patient from one hospital to another.	**R2**
13	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**
14	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) Other important and informative statistics yet to be determined.	**R2**
15	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	**R2**

		Other important and informative statistics yet to be determined.	
16	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**
17	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**
18	Send Private Message	Doctors, nurses, patients and administrators can send private messages of limited length via the system.	**R2**

Use case context diagram


Patient
Doctor
Nurse
Administrator
Register
Update Personal Info
Update Medical Info
Add/Edit Perscriptions
View Logs
Release/Edit Tests
View Tests
View System Activity
Private Messages
Patient Admission
Patient Discharge
Patient Transfer

Use case descriptions

Use Case Number:	***UC-01***
Use Case Name:	***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:	***1. Main (success) Flow:*** ***2. Registrant selects option to register*** ***3. System requests <u>personal</u> information*** ***1. Username*** ***2. First Name*** ***3. Last Name*** ***4. Gender*** ***5. Birthday*** ***6. Email*** ***7. Proof of Insurance*** ***8. Medical Information*** ***9. Phone number Password*** ***4. Registrant provided personal information.*** ***5. System verifies required information is provided.*** ***6. If information is invalid System displays message. Return to Step 2*** ***7. System requests basic <u>medical</u> information*** ***1. Allergies*** ***2. Blood Type*** ***3. Height*** ***4. Weight*** ***5. Prior injuries*** ***6. other*** ***8. Registrant provides medical information*** ***9. System verifies required information is provided.*** ***a. If information is invalid System displays message. Return to***

	Step 5 ***10. System requests <u>emergency contact</u> information*** ***11. Registrant provides emergency contact information*** ***12. System verifies required information is provided*** o ***If information is invalid System displays message. Return to Step 8*** ***13. System requests <u>login</u> information*** ***14. Registrant provides login information*** ***15. System verifies required information is provided*** o ***If information is invalid System displays message. Return to Step 11*** ***16. System displays confirmation of registration***
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 requests confirmation to cancel*** ***3. Registrant confirms intent*** ***4. System returns to main screen*** ***Alternate Flow #2: The emergency contact information is an existing user in the system. After step 10 the following steps would occur:*** ***1. Registrant selects option to select an emergency contact from the system*** ***2. System displays a search bar for the Registrant to input the user's name*** ***3. Registrant inputs the user's name and confirms*** ***4. System returns a list of users with matching names*** ***5. Registrant chooses intended user*** ***6. System sets that user as an emergency contact***
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, 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*** ***- Registrant is an administer***
Scenario Flow:	***Main (success) Flow:*** ***1. Registrant selects option to register as an administrator*** ***2. System requests <u>personal</u> information*** ***1. Username*** ***2. Email*** ***3. Password*** ***4. First Name*** ***5. Last Name*** ***6. Phone Number*** ***7. User id*** ***3. Registrant provided personal information.*** ***4. System requests employee I.D.*** ***5. System verifies required information is provided.*** ***a. If information is invalid System displays message. Return to Step 2*** ***6. System verifies required information is provided.*** ***a. If information is invalid System displays message. Return to Step 5*** ***7. System requests <u>login</u> information*** ***a. Username and Password*** ***8. Registrant provides login information*** ***9. System verifies required information is provided*** o ***If information is invalid System displays message. Return to Step 11*** ***12. System displays confirmation of registration***
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 ***1. System requests confirmation to cancel*** ***1. Registrant confirms intent*** ***1. System returns to main screen***
Post Condition:	***There exists a new user in the system and their information can be referenced and is accurate***

Use Case Number:	***UC-03***
Use Case Name:	***Update Patient Information***
Overview:	***The previous Updater should be able to update the information that they registered when they made the account or the last time they updated.***
Actor(s):	***Updater***
Pre-condition(s):	***- System has been setup and configured.*** ***- System is running storage is intact.*** ***- The Updater has previously registered correctly.***
Scenario Flow:	***Main (success) Flow:*** ***1. The system requests login information*** ***2. The Updater supplies Username and Password*** ***3. The system verifies the information*** ***4. The system displays the information*** ***5. The Updater reviews the information*** ***6. The Updater picks a piece of information and changes it*** ***7. The system asks for confirmation*** ***8. The Updater confirms*** ***9. The information changes and that changed is reflected by the system***
Alternate Flows:	***Alternate Flows:*** ***Alternate Flow#1: The user requests to Cancel*** ***1. The user presses the cancel button*** ***2. The systems requests confirmation on the cancel*** ***3. The user confirms*** ***4. The system exits***

Post Condition:	***The information of a user is updated correctly and stored in the system***

Use Case Number:	***UC-04***
Use Case Name:	***Update Patient Medical Information***
Overview:	***Medical staff should be able to change the information of certain profiles***
Actor(s):	***Medical staff***
Pre-condition(s):	***- System has been setup and configured.*** ***- System is running storage is intact.*** ***- The patient whose information is being updated should have been registered*** ***- The Medical staff who is editing the information has an account and is recognized as an admin***
Scenario Flow:	***Main (success) Flow:*** ***1. The Medical staff member logs in*** ***2. The Medical staff member searches for a patient*** ***3. The system returns a patient*** ***4. The Medical staff clicks on the patient*** ***5. The system takes the Medical staff to the patient's page*** ***6. The Medical staff changes information*** ***7. The information updates and is reflected***
Alternate Flows:	***Alternate Flows:*** ***Alternate Flow#1: The user attempts to cancel*** ***1. The user requests to cancel*** ***2. The system asks for confirmation*** ***3. The user confirms*** ***4. The system exits***
Post Condition:	***The patient's medical information has been updated and the old information was erased***

Use Case	**UC-05**

Number:	
Use Case Name:	**Export Information**
Overview:	**Gives the patient the ability to export their medical information or test results to a word document**
Actor(s):	**Patient, Doctor**
Pre-Conditions(s):	**● User is already registered ● Has information in the system**
Scenario Flow:	**1. User's receives information back from doctor. 2. User selects the option export their information. 3. Choose what they want to export the information to**
Alternate Flow:	**1. User tries to export information when they don't have any. 2. Gives an error 3. User cancels the action to export a. Returns to the patient information screen**
Post Condition(s):	**The user will have their information available to them in either word or email form.**

Use Case Number:	**UC-06**
Use Case Name:	**Create or Update Patient Appointment**
Overview:	**Allows Patients, Nurses, and Doctors to be able to create appointments**
Actor(s):	**Patients, Doctors, and Nurses**
Pre-Conditions(s):	**● The patient has information in the system ● If the patient does not have one on that date, then it will create an appointment on that date.**
Scenario Flow:	**Main Flow #1:(Creating a new appointment) 1. User Goes to the "My Appointments" page 2. They click on the create a new appointment action**

	3. System asks them for the date and time they want 4. System adds that to its system **Main Flow #2:(Updating an appointment)** 1. User Goes to the "My Appointments" page 2. They click on the update appointments 3. System asks them what appointment they want to update 4. User selects the appointment that they want to update. 5. User changes the details of the selected appointment 6. System updates the internal database with the new appointment.
Alternate Flow:	**Alternate Flow #1:(Different appointment at the selected time/time slot not available)** 1. System alerts user that the time slot is taken and finds other options that are either earlier/later than the given time. 2. User Selects whatever fits best in their schedule a. User also has the option to reject the options given, prompting the system to take the user back to the create/update screen asking them to create a new appointment on a different day. **Alternate Flow #2:(User tries to update when they don't have any appointments)** 1. User selects the option to update an appointment 2. System alerts the user that they do not have any appointments and asks if they want to be brought to the create page. a. User can accept and be brought to the create an appointment page. b. User can also deny and be brought back to the home page
Post Condition(s):	**The user has either successfully created a new appointment or has successfully updated the information or date/time of an existing appointment.**

Use Case Number:	**UC-07**
Use Case Name:	**Cancel Patient Appointment**
Overview:	**Feature that will allow only doctors and patients to cancel their upcoming appointments.**
Actor(s):	**Patients, Doctors**
Pre-	• **The user is registered in the system**

Conditions(s):	● **They have upcoming appointments in the system**
Scenario Flow:	**Main Flow #1** **1. User selects the cancel appointment option** **2. System asks which appointment they want to cancel** **3. User selects the appointment they want to cancel** **4. Appointment is removed from the database**
Alternate Flow:	**Alternate Flow #1(User tries to cancel non-existent date)** **1. User tries to cancel an appointment that they never had** **2. System alerts them that they do not have any appointments on that day.**
Post Condition(s):	**The user has successfully canceled an appointment and that appointment was removed from the system.**

Use Case Number:	**UC-08**
Use Case Name:	**Appointment Calendar**
Overview:	**Allows the user to view all of their appointments in a calendar view**
Actor(s):	**Patients, Doctors, Nurses**
Pre-Conditions(s):	● **The user has information in the system** ● **The user is registered in the system**
Scenario Flow:	**1. The user clicks on "my appointments"** **2. The action shows a page that shows all of the patient's or doctor's appointments in a calendar view.** **1. included in this view:** **1. the entire current month is displayed.** **2. each day has appointments for that day listed** **3. the appointments have the patient name listed, and any notes made by the doctor.**
Alternate Flow:	**(None)**

Post Condition(s):	**User will be able to view all of their upcoming appointments in a calendar view.**

Use Case Number:	***UC-09***
Use Case Name:	***Add/Remove Prescriptions***
Overview:	***Doctors can add or remove a prescription to a patient's account. Nurses can view prescriptions of patients that go to the same hospital. Patients can view prescriptions through their account records.***
Actor(s):	***Doctor, Nurse, Patient***
Pre-condition(s):	***- Doctor has access to a computer and patient records.*** ***- Patient has access to a computer to view the prescriptions.*** ***- Patient has an existing account.***
Scenario Flow:	***Main (success) Flow:*** 1. ***System requests credentials.*** 2. ***Doctor enters their credentials.*** · ***If information is invalid System displays message. Return to Step 1*** 1. ***Doctor selects the option to create a new prescription.*** 2. ***Doctor inputs the prescription*** 3. ***System verifies required information is provided.*** · ***If information is invalid System displays message. Return to Step 4*** 1. ***Once prescription is submitted, patient and nurse can access it through the patient's account and record.***
Alternate Flows:	***Alternate Flow #1: After Step 3 in success scenario System will display the option to Cancel the registration process. The following steps would occur:*** 1. ***Doctor selects option to cancel while writing the prescription.*** 2. ***System requests confirmation to cancel***

	3. ***Doctor confirms intent*** 4. ***System returns to main screen*** ***Alternate Flow #2: The doctor could instead decide to edit a prescription instead of creating a new one. After step 2 in success scenario, system will display the option to edit a previously created prescription. The following steps would occur:*** 1. ***Doctor selects the option to edit an already existing prescription.*** 2. ***Doctor edits the prescription.*** 3. ***System verifies required information is provided.*** · ***If information is invalid System displays message. Return to Step 2*** 1. ***Once prescription is submitted, patient and nurse can access it through the patient's account and record.***
Post Condition:	***The prescription must be available for viewing by the patient or nurse.***

Use Case Number:	***UC-10***
Use Case Name:	***Viewing Patient Medical Information, Prescriptions, and Tests and Results.***
Overview:	***Doctors can view all patient's' medical information.*** ***Nurses can view the medical records of patients that go to their hospital.*** ***Patients can view tests and results that have been disclosed by the doctor.*** ***Patients can also view prescriptions.***
Actor(s):	***Doctor, Nurse, Patient***
Pre-condition(s):	***- Doctor has access to a computer.*** ***- Patient has access to a computer.*** ***- Patient has an existing account.***
Scenario Flow:	***Main (success) Flow:*** ***1. System requests credentials.***

	2. System verifies credentials. · ***If information is invalid System displays message. Return to Step 1*** · ***If the user is a doctor or nurse go to step 3. End at step 5*** · ***If the user is a patient go to step 6. End at step 7*** ***3. System requests patient's name.*** ***4. Doctor/Nurse selects on the correct patient.*** ***5. Doctor/Nurse selects on the option to view patient's medical records.*** ***6. Patient clicks on account information.*** ***7. Patient clicks on the tests and results tab or the prescriptions tab.***
Alternate Flows:	***Alternate Flow #1: After Step 5 in success scenario System will display an error if the nurse is trying to access the files of a patient not found at their hospital. The following steps would occur:*** **1. System will display an error message saying that the user does not have the proper authorization to view the records of this patient.** **2. The system will then return to the list of patient names.**
Post Condition:	**The records must be present on the screen when selecting the option to view them.**

Use Case Number:	***UC-11***
Use Case Name:	***Release Test Results***
Overview:	***Doctors can disclose the results of the patient's tests and add additional notes to provide clarity for the patient.*** ***The results will only be able to be seen by the respective patient and no other non-staff members.***

Actor(s):	***Doctor***
Pre-condition(s):	***- Doctor has access to a computer and patient records.*** ***- Doctor has already viewed the results and has made the decision to release them.*** ***- Patient has existing account.*** ***- Patient has completed a test.***
Scenario Flow:	***Main (success) Flow:*** ***1. System requests credentials.*** ***2. System verifies credentials*** ***· If information is invalid, System displays message. Return to step 1*** ***3. System requests patient's name.*** ***4. Doctor inputs patient's name.*** ***5. Doctor selects the correct patient.*** ***6. Doctor selects the option to release test results.*** ***7. Doctor inputs the necessary information about the results and any additional notes. The Doctor must put in the name of the test.*** ***8. Once the test and results have been submitted, the patient can view them through the patient's account.***
Alternate Flows:	***Alternate Flow #1: The doctor could instead decide to edit an already released result. Editing includes adding additional notes or removing some and changing the results due to a possible error. After step 5 in success scenario, system will display the option to edit an already released test result. The following steps would occur:*** ***1. Doctor selects the option to edit an already released test result.*** ***2. Doctor edits the result or adds additional notes.*** ***3. Once the edit has been submitted, the patient can access it through the patient's account.***
Post Condition:	**The test results will be able to be viewed by the patient.**

Use Case Number:	***UC-12***
Use Case Name:	***Logging System Activity***
Overview:	**System will compile a list of actions to be kept for security reasons. The list will include the date, time, name, and type of action completed.**
Actor(s):	***None.***
Pre-condition(s):	***- A doctor, nurse, or administrator uses the application and completes an action.***
Scenario Flow:	***Main (success) Flow:*** 1. ***System requests credentials.*** 2. ***Staff member enters their credentials.*** · ***If information is invalid System displays message. Return to Step 1*** ***1. Once the staff member has completed an action, the system will automatically log the date, time, name, and type of action to the activity log. The name will be taken from the credentials entered in the beginning.***
Alternate Flows:	***Alternate Flow #1: The activity log is not created until AFTER the user logs off. The following steps occur after step 2:*** 1. ***Once the staff member logs off of their account, the system will proceed to create logs for all the actions that the staff member completed.***
Post Condition:	**An administrator will be able to view the system activity log.**

Use Case Number:	**UC-13**
Use Case	**Admission and Discharge**

Name:	
Overview:	**The Patient will be listed as either being in the hospital while being admitted, and will be removed and listed as out of the Hospital once discharged.**
Actors:	**Nurses and Hospital Staff**
Preconditions:	**· The system is up and running · Nurse or Hospital staff has access to the system · The patient is registered in the system**
Scenario Flow:	**1. The Nurse goes to either check the patient into the Hospital or discharge the patient from the Hospital 2. The system requests patient information 3. If the patient is in the system, the patient is checked into the hospital and assigned a room, or the patient is discharged 4. The system displays a confirmation that patient has either been admitted or that the patient has been checked out**
Alternate Flows:	**After Step 2: 1. The patient is not in the system 2. A notification is given to the Nurse or Hospital staff 3. Sent back to the main screen After Step 3: 1. Patient's status is already in the state that it is being changed to (an admitted patient is trying to be admitted, or a discharged patient is being discharged) 2. An alert is given to the Nurse or hospital staff 3. Return to main screen**
Post conditions:	**· Execution complete · Patient has been admitted or discharged.**

Use Case Number:	**UC – 14**
Use Case Name:	**Viewing Activity Log**
Overview:	**Pulling up the logged activity and reviewing it**

Actors:	**Administrators**
Preconditions:	**· The user is an Administrator** **· The Activity has been logged**
Scenario flow:	**1. The Admin attempts to access the activity log** **2. Healthnet checks the user's privileges(if admin or not)** **3. Displays the Activity logs**
Alternate flows:	**After step 1:** **1. The user is not an admin** **2. The system lets user know they do not have appropriate privileges** **3. Returns to main screen**
Post Conditions:	**· Activity log data is displayed on screen**

Use Case Number:	**UC – 15**
Use Case Name:	**Viewing System Statistics**
Overview:	**View statistics pertaining to the Hospital**
Actors:	**Administrators**
Preconditions:	**· System is up and accessible** **· The User is an Admin**
Scenario Flow:	**1. The admin attempts to access Hospital statistics** **2. The system checks the user's credentials(whether or not user is an admin)** **3. The system displays the hospital statistics on screen** **a. Patients** **b. Doctors** **c. Appointments** **d. Prescriptions**
	After step 2:

	1. The user is not an admin **2. The user is alerted that they do not have sufficient privileges to access the data** **3. The user is returned to the main screen**
Post Condition:	**· System statistics are displayed on screen**

Use Case Number:	***UC-16***
Use Case Name:	***Patient Transfer***
Overview:	***Patient Transfer shall provide information of the patient, as well as the information from medical staffs who are responsible for the patient. The system will then determine where the patient will transfer to based on the patient's condition.***
Actor(s):	***Patient, Medical Staff, Administrator***
Pre-condition(s):	***- Patient must be registered*** ***- Patient's condition has changed*** ***- The transfer destination is available***
Scenario Flow:	***Main (success) Flow:*** ***1. Medical staff selects patient transfer option*** ***2. System requests patient's information*** ***3. Doctor provides patient's information.*** ***4. System verifies required information is provided*** ● ***If information is invalid System displays message. Return to Step 2*** ***1. System requests updated medical information*** ***2. Doctor provides updated medical information*** ***3. System verifies required information is provided.*** ● ***If information is invalid System displays message. Return to Step 5*** ***1. System requests transfer reasons*** ***2. Doctor provides transfer reasons*** ***3. System stored the messages which its approval will be determined by the administrator*** o ***System will send a message to doctor based on the availability of the transfer destination*** o ***System will send a message to doctor if the request either gets approved or disapproved by the administrator***

	4. System requests <u>patient's information</u> ***5. System displays confirmation of patient transfer*** ***6. Medical staff confirms the intend*** ***7. System displays a message informing the medical staff that the request has been sent to the administrator***
Alternate Flows:	***Alternate Flow #1: After Step 2 in success scenario System will display the option to Cancel the transferring process. The following steps would occur:*** ***1. Doctor selects option to cancel during registration*** ***2. System requests confirmation to cancel*** ***3. Doctor confirms intent*** ***4. System returns to main screen*** ***Alternate Flow #2: The patient transfer destination is currently unavailable. After step 10 the following steps would occur:*** ***1. Doctor will get a message that the patient transfer destination is unavailable and the next available time along with the other available destinations.*** ***2. System display a selection of choices for the doctor to choose*** ***3. If the Doctor pick an available destination, system request a confirmation, otherwise the system reports an invalid message.*** ***a. Doctor can also hit cancel button where the system returns to main screen***
Post Condition:	***Doctor completed transferring request. System stores patient's information***

Use Case Number:	***UC-17***
Use Case Name:	***Update Patient Information***
Overview:	***Medical Staff shall update the patient's information to the System and overwrites the old stored information.***
Actor(s):	***Medical Staff***
Pre-condition(s):	***- Patient is registered and has completed the all the medical information*** ***- System stored medical history of the patient***

	- Patient's condition has changed
Scenario Flow:	***Main (success) Flow:*** ***1. Medical staff selects option to update patient's information*** ***2. System requests <u>medical staff</u> information*** ***3. Medical staff provided personal information.*** ***4. System verifies required information is provided.*** ● ***If information is invalid System displays message. Return to Step 2*** ***1. System requests patient information*** ***2. Medical staff provides patient information*** ***3. System verifies required information is provided.*** ● ***If information is invalid System displays message. Return to Step 5*** ***1. System displays the patient's information page*** ***2. Medical staff make changes to the information and hit update button*** ***3. System verifies required information is provided*** o ***If information is invalid System displays message. Return to Step 8*** ***1. System requests <u>confirmation to update</u>*** ***2. Medical staff confirms intent*** ***3. System display a message informing the medical staff that the patient information has been updated*** ***4. System return to main screen***
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. Medical staff selects option to cancel during patient information update*** ***2. System requests confirmation to cancel*** ***3. Medical staff confirms intent*** ***4. System returns to main screen***
Post Condition:	***System updates patient's information.***

Use Case Number:	***UC-18***
Use Case Name:	***Send Private Message***
Overview:	***System shall allow medical staff to interact with private messaging system.***

Actor(s):	***Medical Staff, Administrator***
Pre-condition(s):	***- Actors' identities are confirmed*** ***- Private messaging system is running***
Scenario Flow:	***Main (success) Flow:*** ***1. Medical staff/Patient selects option to private message terminal*** ***2. System requests <u>personal</u> information*** ***3. Medical staff/Patient provides personal information.*** ***4. System verifies required information is provided.*** ● ***If information is invalid System displays message. Return to Step 2*** ***1. System displays a private message page where it has all the other medical staffs' contact informations, inbox, sent messages draft and the option to compose new private messages.*** ***2. Medical staff/Patient hit the button Compose*** ***3. System jumps to the page for composing a message where it has recipient, subject and content text boxes to be filled out.*** ***1. Medical staff/Patient fills out the text boxes and hit send button*** ***2. System verifies required information is provided*** o ***If information is invalid System displays message. Return to Step 7*** ***1. System displays a message informing the medical staff/Patient that the message has been sent.***
Alternate Flows:	***Alternate Flow #1: After Step 6 in success scenario System will display the option to Cancel the registration process. The following steps would occur:*** ***1. Medical staff/Patient selects option to cancel while composing a message*** ***2. System requests confirmation to cancel*** ***3. Medical staff/Patient confirms intent***
Post Condition:	***Private message is sent or system saves the unsent message as draft***