GenNex

AT HOME SERVICES USE CASE MODELING

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INTRODUCTION

GenNex Diagnostics and Devices Ltd, is a diagnostic company with diversified products and service portfolios. We have partnerships with hospitals, insurance companies and hospital networks. We are the pioneers in moving from traditional revenue streams into information services, in healthcare industry.

With the changing customer needs and new government regulation (Obama Care) the healthcare industry is changing vigorously in order to improve Heath Care in Unites States of America. GenNex being a forerunner plans to implement outcome-based fee by changing the traditional Fee-for service payment model. The fee-for-service system of payment for health care services is widely thought to be one of the major culprits in driving up U.S. health care costs. This system not only encourages volume but rewards poor quality and provides little incentive for care coordination. GenNex is partnering with likely and unlikely businesses to step-into new dimension in order to deliver best end-to-end experience to the consumer.

GenNex also volunteers for Bundled Payments for Care Improvement Initiative to collaborate in order improve both the quality and efficiency of individual episodes of care.

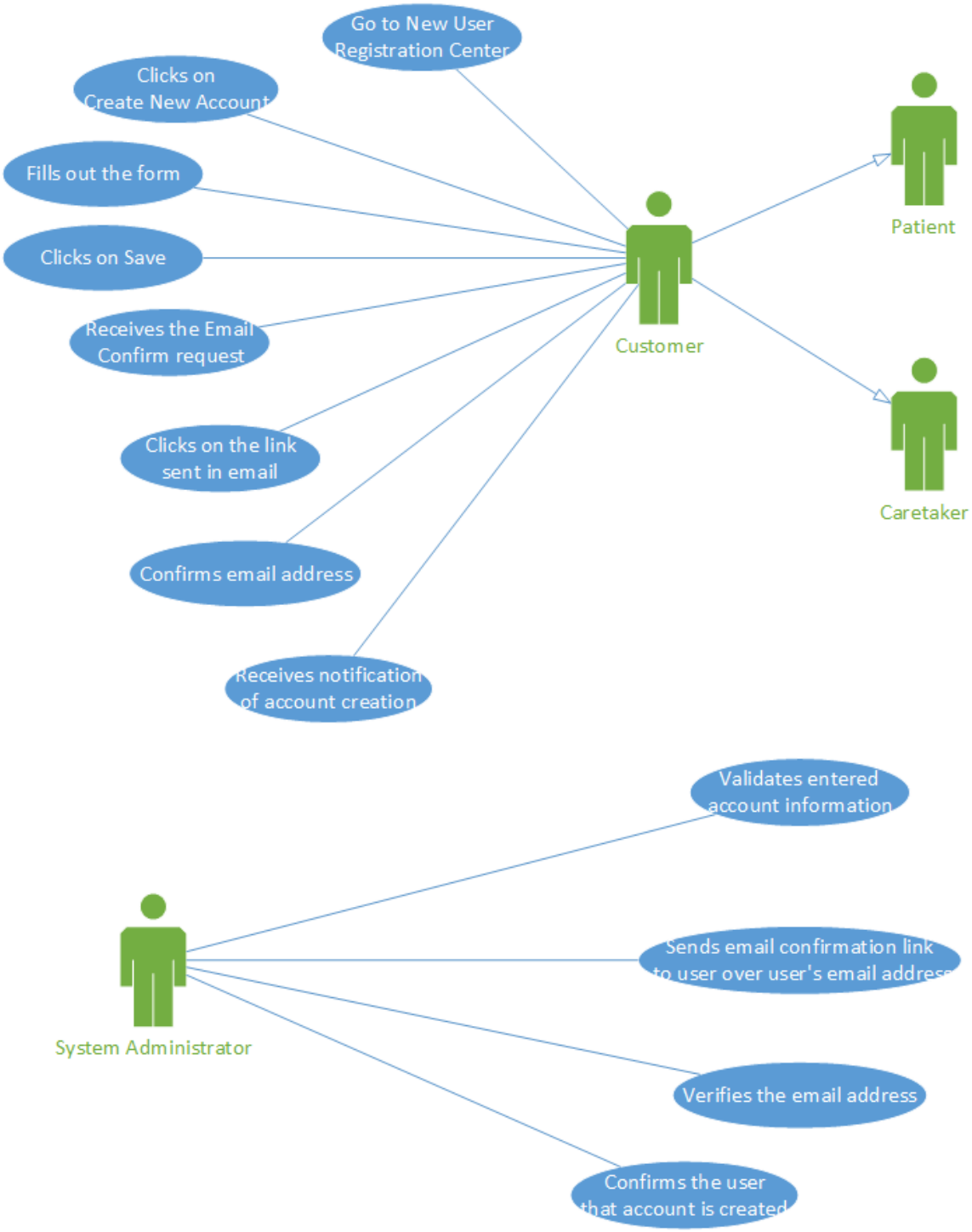
GenNex Diagnostics and Devices is a diagnostics firm with tie ups with various businesses. In this document, we consider the e-commerce division of GenNex which deals with the online purchase and returns of healthcare products. The product portfolio of GenNex marketplace includes medical assistance products like wheelchairs, hearing aids, insulin testers etc. Additionally, we also offer laboratory equipment refills like syringes, cotton swabs, first-aid kits etc. Shipping is provided via UPS deliveries and payment through payment gateways like PayPal and Payflow Pro.

GenNex provides At Home aid services where GenNex sells their devices and also provides home aid support to its customers. The use case modeling below explains the Home Aid Support information system of GenNex. The use-case narratives provide pre-conditions, triggers, course of events, alternate course of events, post conditions, business rules, implementation constraints and finally open issues. The intent of these narratives is to convey the functionality of systems from the perspective of an external user in a manner in which they understand.

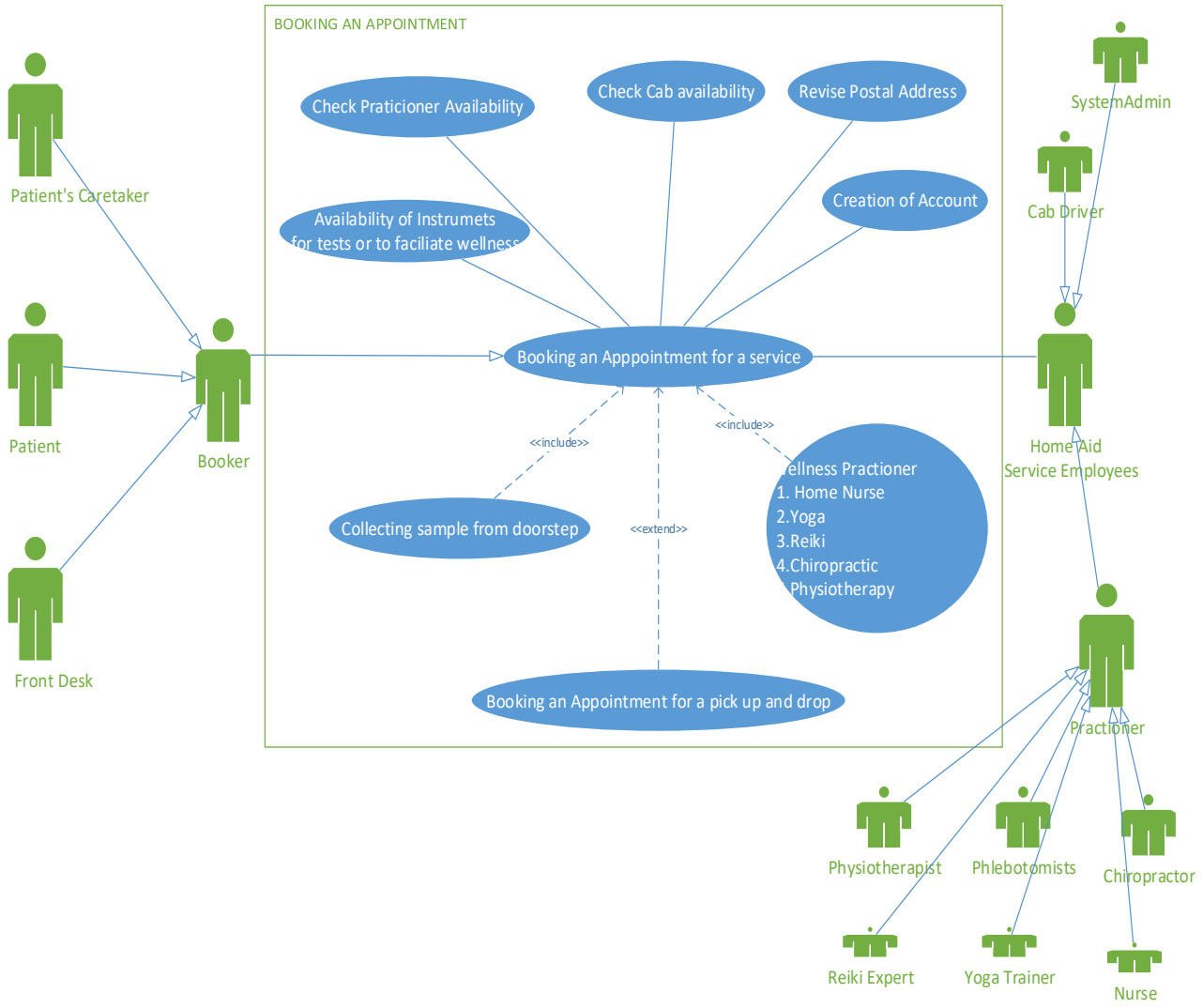
USE CASE DIAGRAMS

High Level Use Case Diagram

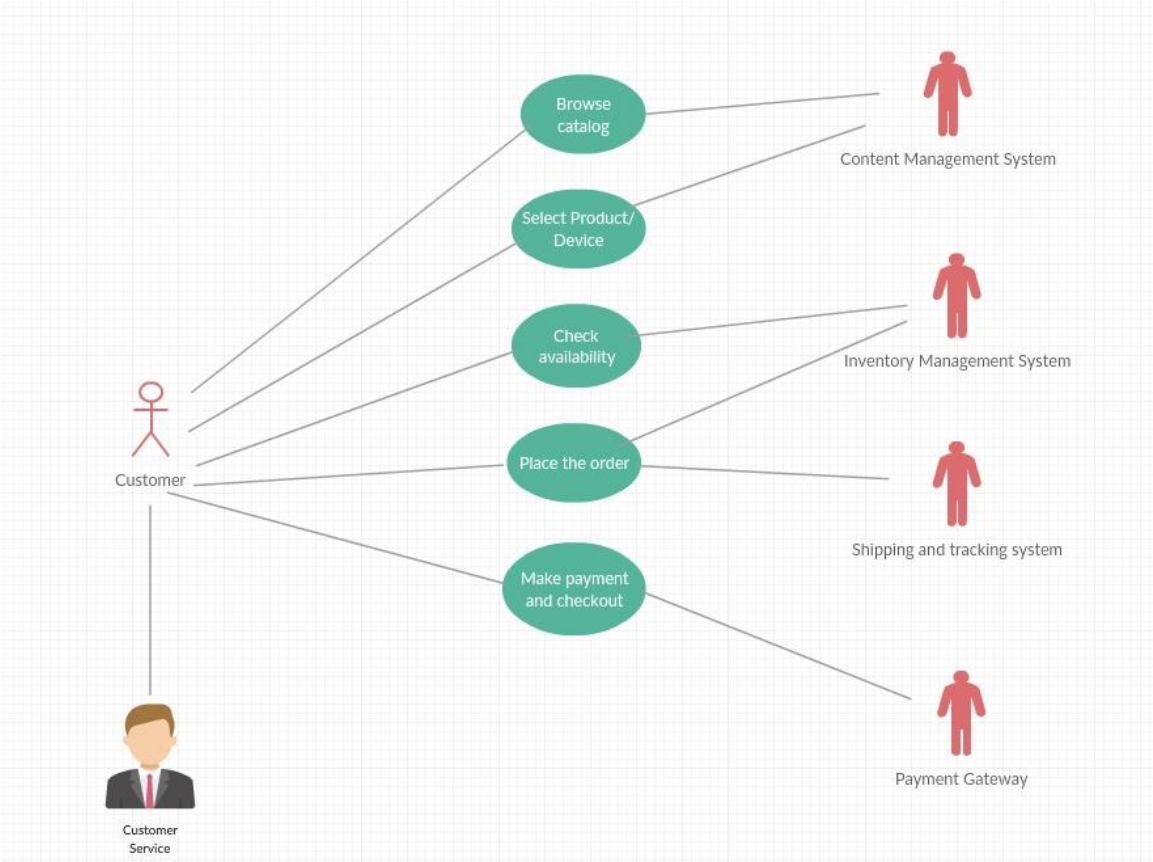
Home Aid Services User Account Creation



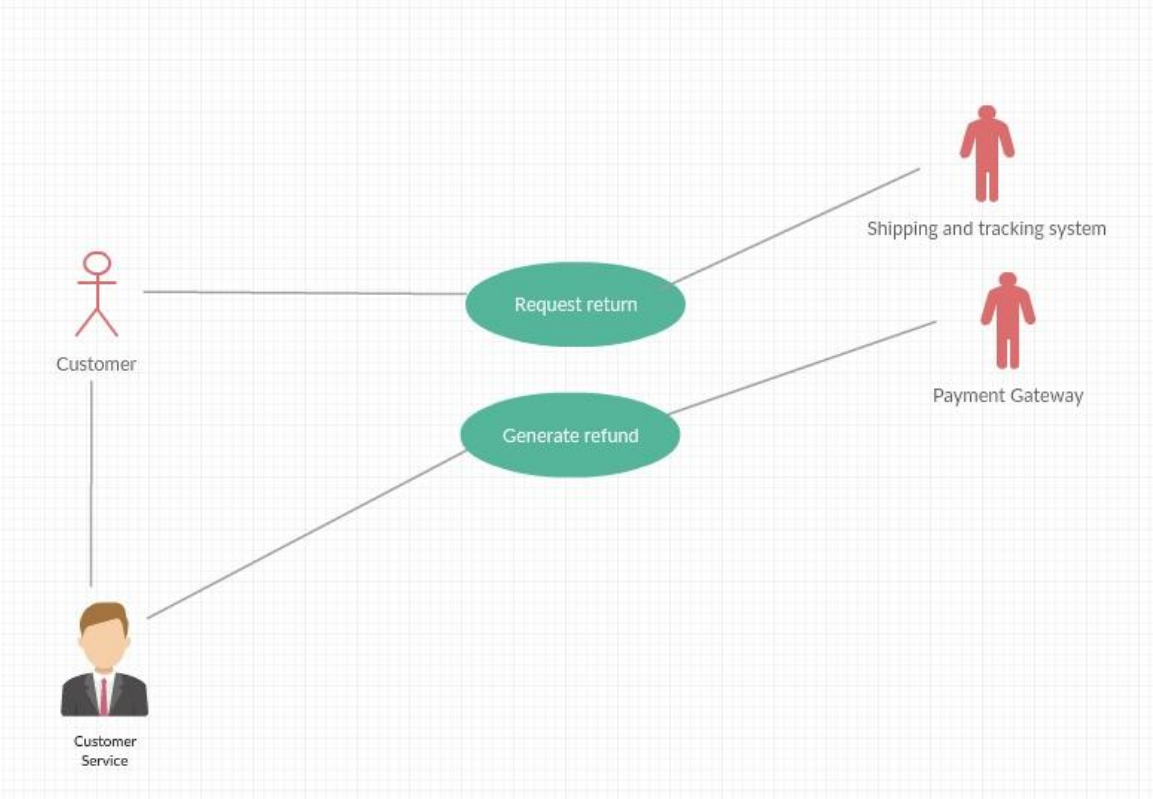
Appointment Booking and Tracking for Home Aid Services



E-commerce for Home Aid Devices

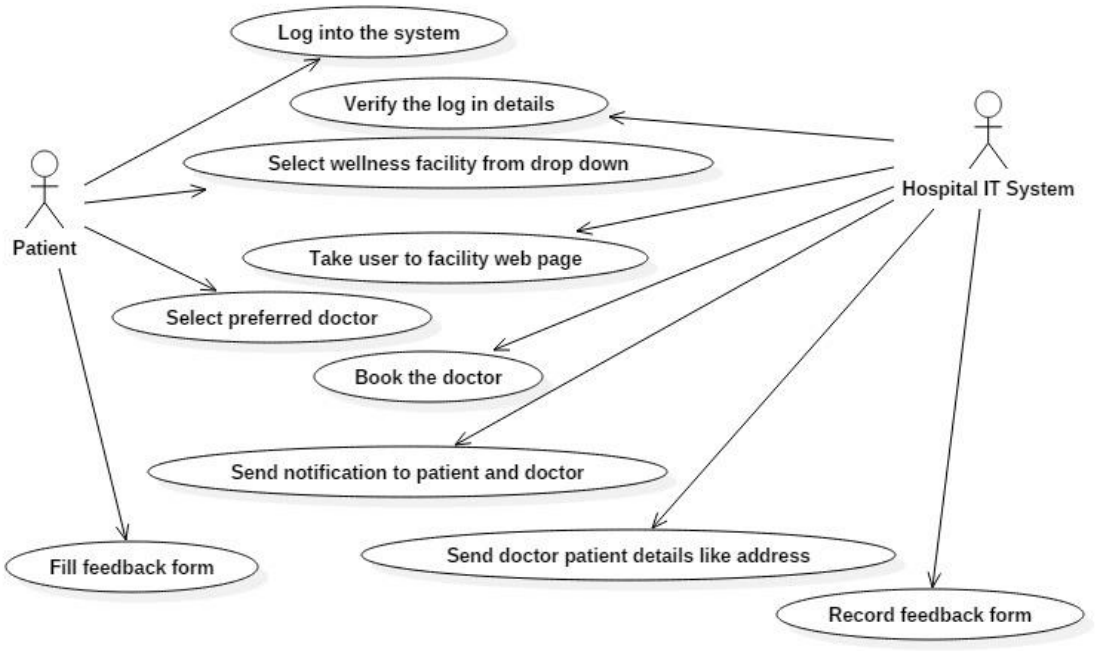


Orders and Delivery

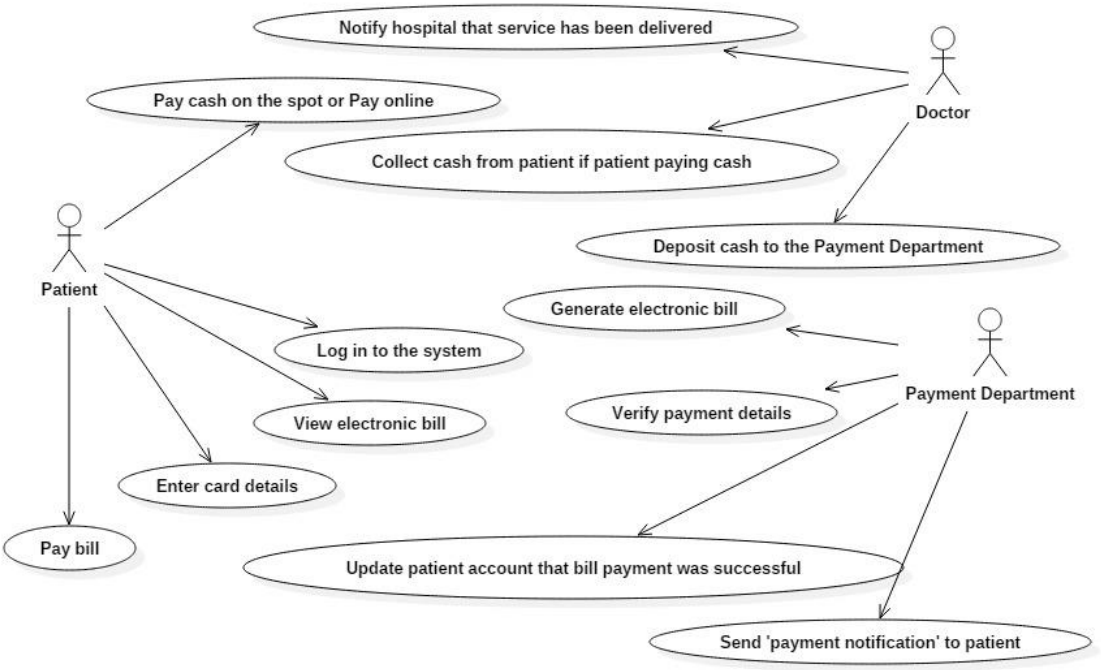


Returns and Refunds

Wellness Services and Payments

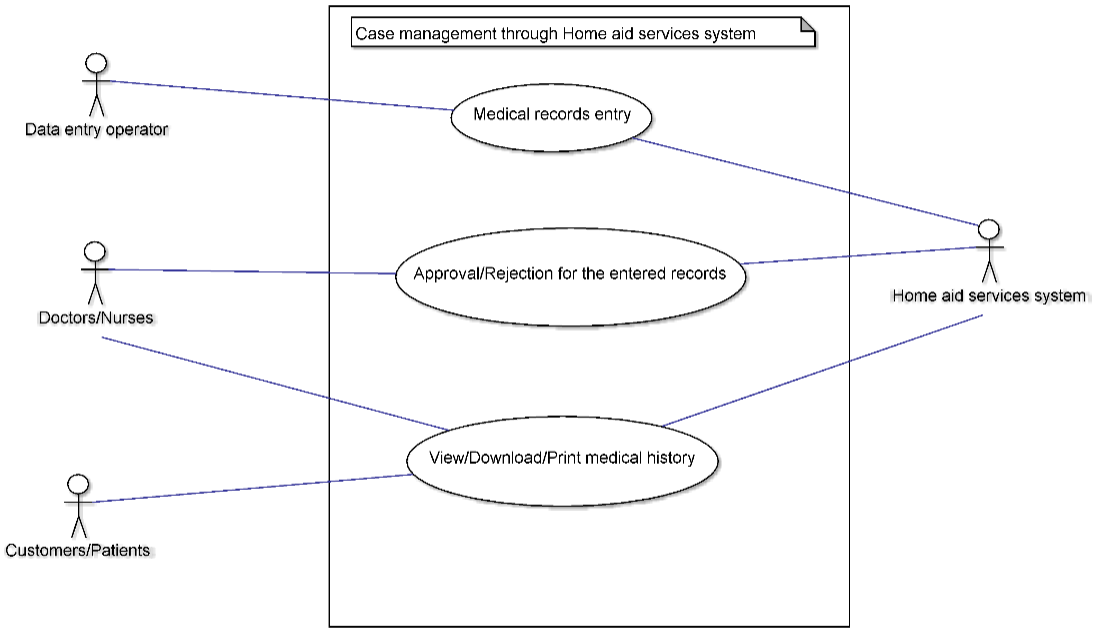


Wellness Services



Payments

Case Management through Home Aid Services



USE CASE TABLES

Actor	Event	Trigger	Post Conditions	Dependency	Risks
Customer (Patients, Patient's caretaker)	Creating new Account	The user gets registered when she/he hits the create account button. The user is	The User entered invalid data or chose to cancel the account creation request. In either case, no account	User clicks on create new account	Internet connectivity issues

		registered when user verifies its email address	will be created		
System Administrator	Validates the user	Validates the user account by verifying email address	User		

ACTOR GLOSSARY

Actor	Description
Customer	An individual who wants to buy healthcare products on the online marketplace.
Inventory Management System	A system which keeps track of the product inventory.
Content Management System	A system which maintains the interface between products for sale and the user.
Payment Gateway	A system used to make payments and generate refunds.
Shipment and Tracking	A system which handles product deliveries and tracking.
Customer Service	Services provided to customers for product feedback, returns and refunds.

USE CASE GLOSSARY

Use-case Name	Use-case Description	Participating Actors and Roles
Orders and deliveries	This use-case involves steps from customer	1. Customer

	browsing the product catalog to the product delivery.	2. Inventory Management System 3. Shipment and tracking 4. Content management system 5. Payment gateway
Returns and refund	This use-case is for the scenario when the customer generates a return or a refund request.	1. Customer 2. Inventory Managemet System 3. Shipment and Tracking 4. Customer Service 5. Payment gateway

USE CASE NARRATIVE

Home Aid Services User Account Creation

Name	Create Home Aid Service Account
Brief Description	The Create Account use case allows the User to create a login and become a Registered User for home aid services.
Actor(s)	Customer (Patients, Patient's caretaker) , Employee (Doctors, Nurses, Administrative staff, System Administrator, physiotherapist)
Other Participating Actors	Hospital Networks, Cab Partners, Pharmacists
Other interested stakeholders	Government, Other systems
Description	This use case will explain the flow of creating account for Home Aid services.
Pre-condition	The user should not be an existing user.
Trigger	The user gets registered when she/he hits the create account button. The user is registered when user verifies its email address

Typical Course Events

This use case starts when the User accesses the system feature that enables him/her to create an account by entering information that is maintained in the User's account.

1. User accesses the new user registration section of Create Account
2. User provides following information for the account :
    a. Username
    b. First Name
    c. Last Name
    d. City
    e. State
    f. Username – a unique name by which the user can be identified
    g. Password – since the text of this field is masked, it is entered twice to ensure it is typed as intended
    h. Contact Information
        i. Work Phone Number
        ii. Cell Phone Number
        iii. Email Address
3. User requests the system to save the entered values
4. System validates the entered account information
5. System sends email confirmation back to the user in order to validate the email address
6. Once the user's email is verified, the values for the user account information is stored in the database
7. The system notifies the user that account is created
8. The use case ends

Alternate Courses

Title	**Description**
User Enters Invalid User Account Information	If during Create Account, the system determines that the User entered invalid User Account information, the following occurs: 1. The system describes which entered data was invalid and presents the User with suggestions for entering valid data 2. The system prompts the User to re-enter the invalid information 3. The User re-enters the information and the system re-validates it

	4. If valid information is entered, the User Account Information is stored 5. If invalid information is entered, the Entered Information is Invalid alternative flow is executed again. This continues until the User enters valid information, or chooses Cancel Invalid User Account information: - Missing information items - Username already exists in the system - *User Account* information entered does not comply to its definition in the glossary - Not well formed e-mail address - Offending words in any part of the *User Account* information
User Cancels Request	At any time, the User may choose to cancel the account creation. At which point, the processing is discontinued, the user account remains unchanged, and the user is notified that the account management request has been cancelled.
Modify User account	If User needs to modify the properties of a user account (e.g. password, contact information, etc.) 1. User selects the "Modify" command on their account 2. System present user detail with edit mode 3. User modifies the user account information described in Step 2 of the Typical course events 4. User selects the "Save Changes" command to update the user account 5. System validates the information provided and determines that validation is passed. It follows steps 5,6, 7 of Typical course events 6. The use case ends
Post-Conditions	
Title	**Description**
Success	The User entered data is stored in the user account. Confirmation is sent to the appropriate email address.

The user account was not created	The User entered invalid data or chose to cancel the account creation request. In either case, no account will be created.
Business Rules	Password must conform to the configured defined GenNex account password strength policy Username must be unique and conform to the configured GenNex account username policy (such as minimum characters) Email address provided by the user must be verified before user account is created
Implementation Constraints and Specifications	The user might provide incorrect details to complete the process of account creation
Assumptions	Only the user who themselves or for whom they take care for creates an account i.e if aged people or disable patients won't be well verse with information system so their care taken can make account on their behalf. Also once the account is created, system takes care of the patient's preference to reach them via email/calls or texts.
Open Issues	Account creation of the whole GenNex system is evitable.

Appointment Booking and Tracking for Home Aid Services

1.	**USE CASE NAME**	Booking an Appointment	USE CASE TYPE
			Business Requirement
2.	**Priority**	High	
3	**Primary Business Actor**	**Booker** – Patient, Front Desk, Caretaker	
4	**Secondary Business Actor**	Home Aid Service Employee's , Provider	
5	**Pre-Condition**	1. Book An Appointment for a service 2. Patient has a registered account at GenNex	
6	**Trigger**	When the user clicks on "Book an Appointment"	

7	**Dependencies**	1.Practioner Availability 2.Cab Availability 3.Account Creation 4.Address Verification 5.Instrument Availability	
8.	**Typical Course Of Action:** **Happy Path**	Actor Action	System Action/Response
		Step 1 : The user logs in to the 'Home Aid Service' system using their registered email address and password	Step 2 : System validates the login and the user is logged into the User Dashboard of 'Home Aid Service' system
		Step 3 : User clicks on the "Book an Appointment" Button	Step 4 : The system displays a drop down listing the services and appointment can be booked for: 1. Door step sample collection 2. Nurse – Personal Assistant 3. Physiotherapist 4. Yoga Trainer 5. Reiki Expert 6. Chiropractor 7. Cab driver
		Step 5: User selects a 'Service' from the drop down option and clicks on 'Next'	Step 6 : System displays the available dates and the time slots to book an appointment
		Step 7 : User selects the appointment date and time slot and clicks on 'Next'	Step 8 : System navigates to a page that prompts the user to enter the address and phone number
		Step 9: • User selects the registered address and registered phone number and clicks 'Next' • User clicks on add new address and	Step 10 : • System selects and confirms the address and time of the booking and prompts the user to confirm • System adds the new address and phone

		enters the address and phone number and clicks 'Next'	number of the booking and prompts the user to confirm
		Step 11: User confirms the booking	Step 12: • System displays a message "Booking Confirmed "System sends an appointment booking confirmation to the registered email address • System displays the booking • The details of the booking in the display and the email include: 1. Name of the patient 2. Service requested 3. Date of service 4. duration of service 5. Assigned Service Practitioners name 6. Pre- requisites on diet from the patient's end
9.	**Alternate Course Of Action:**	Actions	
	Alternate Course Of Action: **@ User calls the front desk to book an appointment**	**Alt Step 1**: • User calls up the 'Home Aid Service' to book an appointment • The front desk receive the call and request for registered email • The front desk verifies for the registered email by	

		entering the email address in the system **Alt step 2** : System validates the email address and navigates to the User Dashboard of 'Home Aid Service' system **Step 3**	
	Alternate Course Of Action: **@ User Validation Fails**	**Alt Step1** : • System display's an appropriate error and prompts the user to login again • **Step 1** • System allows the user to attempt to log in correctly with the registered email address thrice only • After three failed login attempts System displays the message" You have been locked out of your account for 24 hours. You may call up 'GenNex Home Health Services' at 1800-978-675 to book an appointment' **Alt Step 1** from **User calls the front desk to book an appointment:** • User calls up the 'Home Aid Service'	

		to book an appointment • The front desk receive the call and request for registered email • The front desk verifies for the registered email by entering the email address in the system **User Calls help desk Alt step 2** : System validates the email address and navigates to the User Dashboard of 'Home Aid Service' system **Step 3**	
	Alternate Course Of Action: **@ No time slots available for the booking request**	**Alt Step 6**: • If no time slots are available, System displays a message " No time slots available at this moment, we will call you back if any slots are available" • If any slots are available the relationship manager calls up the customer and then facilitates a booking **Step 7**	
	Alternate Course Of Action:	**Alt Step 9:** • User does not enter all the mandatory	

	@ Address and Phone number verification fails	address fields then the system prompts an appropriate error message " Please enter all the mandatory address fields" • User does not enter a valid phone number then the system prompts an error message" please enter a valid phone number" Once the user has entered correct address and phone number details proceed to **Step 11**	
	Alternate Course Of Action: **@ System is not able to generate a confirmation**	**Alt Step 12 :** • System is not able to generate a booking confirmation immediately after the request is processed the system should display a message saying : " The appointment will be mailed to you on the registered email address within 10 minutes" • If the appointment is not mailed to the registered user in 8 minutes the Admin gets notified about the failed booking and he/she ensures booking request is	

		successful and then mailing the appointment to the registered user	
	Post Condition	The appointment is booked and all the actors are notified about the appointment	
	Business Rules	• Can book only one appointment at a time • Can schedule only daily appointments	
	Implementation Constraints	• The online application is designed to work only for 100 users at the same time • If no slots available as requested ,you will be waitlisted and called to confirm appointment at for that slot if it is available later	
	Open Issues	• How do we receive billing and claim details? • Who is responsible for syncing of new account creation • How do we receive reports after a patient is completely diagnosed?	
	Assumptions	• User knows to use the system • Customer address details are correct	

		• Customer phone number is functional and correct • System is not designed for Specially Abled users. Specially abled users need assistance to "Book an Appointment"	

E-commerce for Home Aid Devices

Use-case Name	Orders and Deliveries	Use-case Type: Business Requirements
Use-case ID	1	
Priority	Medium	
Source	Need for diagnostic products	
Primary Business Actor	Customer	
Other Participating Actors	1. Content Management System 2. Inventory Management System 3. Payment Gateway 4. Shipping and Tracking System 5. Customer Service	
Other Interested Stakeholders	1. Marketing – Interested in sales for promotion purposes 2. Procurement – Interested in sales activity to replenish inventory 3. Management – Interested in purchase activity to assess sales performance	
Description	This use-case describes the e-commerce of diagnostic and health devices. It is triggered when a customer is in need of a diagnostic device. Customer will browse the store catalog in the online store of GenNex and select a device. He will then place an order and make payment through a payment gateway. On completion, the customer receives the product by home delivery. In case of refunds, customer service is involved and refund is generated.	

Pre-condition	Customer has a health condition.	
Trigger	Customer needs a health device.	
Course of events	Actor Action Step 1: Customer browses the catalog for product required from the content management system. Step 2: Customer selects the product. Step 4: Customer places the order. Step 6: Customer makes a payment through the payment gateway.	System Response Step 3: Inventory Management System checks the availability of the product. Step 5: Order details are updated in the shipping and tracking system. Step 7: Product is delivered to the customer via shipping and tracking system.
Alternate course of events	1. Alt-Step 3: The product selected by the customer is out of stock. Create an out-of-stock notification and suggest alternate products. 2. Alt-Step 6: The customer enters wrong payment details. Generate an error and prompt the customer to enter new details. 3. Alt-Step 7: Customer receives a defective/wrong product. Customer service handles defect requests and generates a refund.	
Conclusion	The use-case concludes when the customer receives the product.	
Post-condition	The customer received the correct product in working condition.	
Business Rules	1. Customers must have an account created. 2. One customer must have one account.	

	3. Payments must be made through the payment gateway.
Implementation constraints and specifications	1. GUI must be provided for customers to use content management system. 2. Payment gateway must have highest amount of security and encryption.
Assumptions	1. Customers are in need of medical devices. 2. Customer does not cancel orders before shipping.
Open Issues	Payment options need to be figured out i.e. whether to allow cash, debit or credit payments.

Use-case Name	Returns and Refund	Use-case Type: Business Requirements
Use-case ID	2	
Priority	Medium	
Source	Delivered product is faulty/incorrect	
Primary Business Actor	Customer	
Other Participating Actors	1. Inventory Management System 2. Payment Gateway 3. Shipping and Tracking System 4. Customer Service	
Other Interested Stakeholders	1. Procurement – Interested in sales activity to update inventory 2. Customer Relationship Management – Interested to provide effective returns and refund	
Description	This use-case describes the return and refund of diagnostic products from the online store of GenNex. It is triggered when the customer receives a defective or a incorrect product. It concludes when the customer receives a refund into his account.	
Pre-condition	Customer receives a faulty/incorrect product.	
Trigger	Customer receives a faulty/incorrect product.	
Course of events	Actor Action Step 1: Customer raises a return/refund request via customer service.	System Response Step 2: Shipping and tracking System receives the

	Step 3: Customer service generates a refund request.	request and schedules a pickup for return. Step 4: Refund is generated through the payment gateway and credited to the customer account.
Alternate course of events	1. Alt-Step 2 - Product returns are out of pickup coverage area. In this case, the customer is prompted to search for nearest drop-off point from where the product can be picked up for returns.	
Conclusion	The use-case concludes when the customer receives the refund and inventory receives the product.	
Post-condition	Customer received the refund and distribution center received the product.	
Business Rules	1. Customers must have an account created. 2. The product delivered must be faulty or incorrect. 3. Refunds must be generated through the payment gateway.	
Implementation constraints and specifications	1. GUI must be provided for customers to use content management system. 2. Payment gateway must have highest amount of security and encryption.	
Assumptions	Customer receives a faulty/incorrect product.	
Open Issues	Refund options need to be figured out i.e. whether to allow credit refunds or gift coupons.	

Wellness Services and Payments

USE CASE NAME	Wellness	**USE CASE TYPE**
		Business Requirement
Priority	High	
Primary Business Actor	Patient/Guardian/Disabled Patient	

Other Participating Actors	Doctor, Admin, Yoga teacher, Reiki specialist, Physiotherapist, Chiropractic	
Description	This use case describes a service provided by GenNex as part of the Home Health Aid. In this use case, the patient logs in to the GenNex website and under the Home Health Aid tab requests for services like physiotherapy, chiropractic, yoga sessions at home, reiki sessions, acupuncture etc. GenNex responds by sending the specialist over to the patient's house for the required duration as specified by the patient.	
Precondition	The user patient/patients need to have a user account created on the GenNex website.	
Trigger	When the patient books an appointment on the GenNex website through their account.	
Typical Course event	**Actor Action**	**System Action/Response**
	Step 1: The patient/guardian/disabled patient logs into the system using their credentials	**Step 2**: The user credentials are successfully verified and the user is logged into the system
	Step 3: The patient selects the facility they want to avail from the drop down list.	**Step 4**: The system takes the user to the webpage for the facility they requested.
	Step 5: The user selects the doctor they prefer	**Step 6**: The system books the doctor for the facility the patient requested.
		Step 7: The patient and the doctor are sent notifications about the appointment confirmation
		Step 8: The doctor is sent patient details like their home address, the day/date of the appointment ,the duration of the appointment etc.
	Step 9: The patient fills a feedback form.	**Step 10**:The feedback is recorded into the system

Alternate Courses	**Alt Step 2**: The validation fails and the system asks the user to log in again and after three attempts the account is locked.	
	Alt Step 5: If the doctor preferred by the patient is not available or not on duty, the patient selects a different doctor.	
	Alt Step 7: If the patient does not receive an appointment confirmation within an hour, the admin is notified.	
Conclusion	The use case concludes when the user successfully books and appointment and receives an appointment notification.	
Post Condition	The system sends reminder messages to the doctor and the patient. The patient is sent an electronic bill as well once the appointment is over. The patient has the option to pay on the spot or online. Once the payment is done the patient	
Business Rule	1) The patient has to have a valid user account on the GenNex website. 2) The system will generate immediate appointment confirmation message to the patient. 3) The system will also immediately inform the doctor of the appointment and send all required patient information to the doctor.	

USE CASE NAME	Payment for the wellness services	**USE CASE TYPE**
		Business Requirement
Priority	High	
Primary Business Actor	Patient/Guardian/Disabled Patient	
Other Participating Actors	Doctor, Admin, Yoga teacher, Reiki specialist, Physiotherapist, Chiropractic	
Description	This use case describes a service provided by GenNex as part of the Home Health Aid. In this use case, the patient pays for the service they have used either through	

	online portal or immediately in person at home to the doctor providing the services.	
Precondition	The user patient/patients need to have a user account created on the GenNex website for online payment and card details must be entered at all times in case the patient fails to pay in person.	
Trigger	When the doctor notifies the system that the service has been successfully delivered to the patient.	
Typical Course event	**Actor Action**	**System Action/Response**
	Step 1: The doctor notifies that the required service has been delivered to the patient.	**Step 2**: A physical bill is generated by the doctor on the spot and also an online bill is generated for online payment and further references.
	Step 3: The patient decides whether they want to pay on the spot or through online.	**Step 4**: The doctor collects cash if the patient decides to pay on the spot.
		Step 5: The doctor notifies the system if the user decides to pay online.
	Step 6: The user makes an online payment.	**Step 7**: The system verifies the payment details and records a payment.
		Step 8: A 'payment successful' message is sent back to notify the patient.
Alternate Courses	**Alt Step 2**: If the doctor forgets to generate a bill in the case that the patient decides to pay online, an electronic bill is generated for the convenience of the patient and the administration.	
	Alt Step 5: If the online payment fails, someone from the Payment department calls and notifies the patient.	

	Alt Step 8: If the patient does not receive a payment confirmation within 48 hours of making the payment, the admin is notified.	
Conclusion	The use case concludes when the patient receives a 'payment successful' message from the system after making the payment.	
Post Condition	The system sends timely payment reminders to the patient if the patient forgets to pay online. The system also sends the doctor (who collected the payment on the spot) reminder messages to deposit the patient cash received in the Payment Department.	
Business Rule	1) The patient has to have a valid credit card for online payment. 2) The system will electronic bills irrespective of the mode of payment. 3) The system will also immediately inform the patient as soon as the payment has been successfully verified and recorded in the system.	
Open Issues	Communication with the Payment department regarding the refund of faulty/ unsatisfied services.	

Case Management through Home Aid Services

Brief Description:	The purpose of this Use case is to feed in the data related to patients provided by nurses, doctors/physicians etc. The data pertains to prescription that the patient received or blood pressure reading nurses take at patients' home or test results etc.
Business Trigger:	Publishing of Doctor's prescription, Test results etc. online for customers/patients.

Technical Trigger:	Login by a data entry operator into the portal
Primary Actors:	Data entry operator
Secondary Actors:	Authorized doctors to sign off new entry to publish online.
Preconditions:	1. Home aid services system should be up and running. 2. Data should be available in material or electronic form.
Dependencies:	Dependency of this use case is on the activity of giving access rights by the system administrator to the data entry operator. If access giving use case is not successful then this use case will never succeed.

Basic Flow: Data entry after successful login.	
Assumptions: Data entry operator has all required access to the system.	
System Actor Action	**System Response**
1. Data entry operator will open the Home aid services portal.	2. To check the authenticity and authorization system will present the login screen.
3. Data entry operator will login into the system.	4. System will validate the credentials and user will be presented with the authorized menu list.
5. Data entry operator will select enter patient's data menu.	6. System will present the screen to search/select patient id.
7. Data entry operator will enter the patient id and will search for it.	8. System will show the patient account name.

9. Data entry operator will select the account.	10. System will open up the account with all available details and other options.
11. Data entry operator will select create new entry option.	12. System will open up new page asking what type of entry to be fed in.
13. Data entry operator will select the type of entry to be fed in. It could be test results, prescription given by doctor etc.	14. System will open up the screen based on user selection for data entry.
15. Data entry operator will input all the required/provided details on the screen and will click on submit.	16. System will internally process the request and will store the data into the system and will respond with confirmation saying data saved successfully.
17. Data entry operator will then click ok to acknowledge the system message and logout from the system.	18. System will close the session for that user.
Post Condition:	Data entry operator is logged out of the system.

Alternate Flow 1 (AF1): Login failed	
Assumptions: Data entry operator does not have required access to the system.	
System Actor Action	**System Response**

1. Data entry operator will open the Home aid services portal.	2. To check the authenticity and authorization system will present the login screen.
3. Data entry operator will login into the system.	4. System will validate the credentials and user will be presented with a screen saying you are not authorized to use this system.
Post Condition:	**Data entry operator is not able to log in to the system.**

Alternate Flow 2 (AF2): To add new entry again after successfully adding one.	
Assumptions: Data entry operator is already logged into the system.	
System Actor Action	**System Response**
1. Data entry operator click ok to acknowledge the system message that data stored successfully.	2. System will provide option to the user whether to add new entry again.
3. Data entry operator select to add new entry again.	4. System will again take the user to user new data entry page.
Post Condition:	Data entry operator is redirected to new data entry page.

Business Rules:
Any customer/patient related data – reports, test results etc. need to be made available to customers/patients online, within 24 hours after the transaction/test/service is performed/delivered.

Implementation Constraint:
NA

Open Issues:
How much details about the customer/patient account, these data entry operator can see when they select/search customer/patient by their id.? How much data can be published online for medical records related to patients?

Brief Description:	The purpose of this Use case is that once the data entry is done for a customer/patient. Then the designated doctor need to verify the entered details and sign it off, so that data is published into the system and all those users who are authorized to access this information can see the data online.
Business Trigger:	Customer/Patient want to see their related details from their account.

Technical Trigger:	Data entry saved into the system and it comes to Doctor's inbox for approval.
Primary Actors:	Doctors with authority of signing off data entries, to publish.
Secondary Actors:	Data entry operator can check whether their request was signed off and published.
Preconditions:	Data entry is done by the data entry operator.
Dependencies:	This use case depends on the activity of data feeding into the system and an approval request has come into Doctor's inbox. So, if data entry and approval request is not generated, this use case will fail.

Basic Flow: Sign off data entry after successful login.	
Assumptions: Doctor has all required access to the system.	
System Actor Action	**System Response**
1. Doctor will open the Home aid services portal.	2. To check the authenticity and authorization system will present the login screen.
3. Doctor will login into the system.	4. System will validate the credentials and user will be presented with the authorized menu list.

5. Doctor will select sign off patient's record menu.	6. System will present the screen to search/select patient record that need approval.
7. Doctor will select patient record that needs to be signed off.	8. System will show the patient record details.
9. Doctor will select the approve button after review.	10. System will save the response and acknowledge that entry has been signed off.
11. Doctor will then click ok to acknowledge the system message and logout from the system.	12. System will close the session for that user.
Post Condition:	Doctor is logged out of the system.

Alternate Flow 1 (AF1): Login failed	
Assumptions: Doctor does not have required access to the system.	
System Actor Action	**System Response**
1. Doctor will open the Home aid services portal.	2. To check the authenticity and authorization system will present the login screen.
3. Doctor will login into the system.	4. System will validate the credentials and user will be presented with a screen saying

	you are not authorized to use this system.
Post Condition:	Doctor is not able to login to the system.

Alternate Flow 2 (AF2): To approve/sign off another entry after successfully approving one	
Assumptions: Doctor is already logged into the system.	
System Actor Action	**System Response**
1. Doctor click ok to acknowledge the system message that entry is signed off.	2. System will provide option to the user whether to sign off another entry.
3. Doctor select to approve more entry option.	4. System will again take the user to inbox to show available entries for sign off.
Post Condition:	Doctor is redirected to inbox for pending approval requests.

Business Rules:
For each customer/patient, the records being fed into the home aid services system by a data entry operator, it needs to be approved by the designated

doctor. Once it is approved/signed off by a Doctor, then only it will be visible to all authorized users in the system.

Implementation Constraint:
For each data entry for customer/patient how to mandate the designated Doctor to approve/sign off the entry as per the service level agreement.

Open Issues:
How many reminders for approval to be sent to Doctors? If Doctors are not approving the requests on time to whom it should be escalated?

Brief Description:	The purpose of this Use case is that once the data entry is done for a customer/patient. Then the designated doctor need to verify the entered details and sign it off, so that data is published into the system and all those users who are authorized to access this information can see the data online. But, if the system finds any discrepancy within the records fed into the system based on validations put into the system. Then these entries are put into the rejection inbox of Doctor and they have option to reject it and send it back to data entry operator for correction. If not rejected doctors can approve it as per Use case 2.

Business Trigger:	Customer/Patient want to see their related details from their account.
Technical Trigger:	Data entry saved into the system and it comes to Doctor's inbox for approval.
Primary Actors:	Doctors with authority of signing off data entries, to publish.
Secondary Actors:	Data entry operator can check whether their request was signed off or rejected.
Preconditions:	Data entry is done by the data entry operator.
Dependencies:	This use case depends on the activity of data feeding into the system and an approval request has come into Doctor's inbox. So, if data entry and approval request is not generated, this use case will fail.

Basic Flow: Reject data entry after successful login.	
Assumptions: Doctor has all required access to the system.	
System Actor Action	**System Response**
1. Doctor will open the Home aid services portal.	2. To check the authenticity and authorization system will present the login screen.
3. Doctor will login into the system.	4. System will validate the credentials and user will be

	presented with the authorized menu list.
5. Doctor will select sign off patient's record menu.	6. System will present the screen to search/select patient record that need approval.
7. Doctor will select the patient record that needs to be signed off or rejected.	8. System will show the patient record details and highlight records that system thinks, should be rejected.
9. Doctor will select the reject button after review, if he/she finds any issue with the record.	10. System will save the response and acknowledge that entry has been rejected and it will send the request back to data entry operator.
11. Doctor will then click ok to acknowledge the system message and logout from the system.	12. System will close the session for that user.
Post Condition:	Doctor is logged out of the system.

Alternate Flow 1 (AF1): Login failed	
Assumptions: Doctor does not have required access to the system.	
System Actor Action	**System Response**

1. Doctor will open the Home aid services portal.	2. To check the authenticity and authorization system will present the login screen.
3. Doctor will login into the system.	4. System will validate the credentials and user will be presented with a screen saying you are not authorized to use this system.
Post Condition:	Doctor is not able to login to the system.
Alternate Flow 2 (AF2): To reject another entry after successfully rejecting one	
Assumptions: Doctor is already logged into the system.	
System Actor Action	**System Response**
1. Doctor click ok to acknowledge the system message that entry is rejected.	2. System will provide option to the user whether to reject another entry.
3. Doctor will select reject more entry option.	4. System will again take the user to inbox to show available entries for rejection.
Post Condition:	Doctor is redirected to inbox for pending requests.

Business Rules:

For each customer/patient, the records being fed into the home aid services system by a data entry operator, must be correct by all means. So, there will be pre-defined logic in the system to validate the input. Apart from there will be more logic that would highlight requests in Doctor's queue to get his/her attention if the request need to be rejected.

Implementation Constraint:
For each data entry for customer/patient how to mandate the designated Doctor to approve/sign off the entry as per the service level agreement.

Open Issues:
What are the parameters that needs to be validated for each data entry, to identify whether the records needs doctor attention for rejecting it? How many reminders for approval to be sent to Doctors? If Doctors are not approving the requests on time to whom it should be escalated?