

Use Case Name	ERS Login
Participating Actors	Front Desk Worker
Flow of Events	<p>7. The front desk worker initiates the process by entering their unique username and password into the ERS System.</p> <p>8. The system verifies the entered credentials against the database.</p> <p>9. If the credentials are valid, the system redirects the worker to the main dashboard.</p>
Entry Condition	The front desk worker is at the workstation with the C.A.R.E.S. System login screen ready.
Exit Condition	The front desk worker gains access to the C.A.R.E.S. system and is presented with the main dashboard appropriate to their role.
Quality Requirements	
Included Relationships	<p>Check In Patient</p> <p>Log Out</p>
Extended Relationships	<p>Incorrect Login</p> <p>Empty Login</p>

Use Case Name	Nurse Login
Participating Actors	Nurse
Flow of Events	<ol style="list-style-type: none"> 1. The front desk worker initiates the process by entering their unique username and password into the C.A.R.E.S. System. 2. The system verifies the entered credentials against the database. 3. If the credentials are valid, the system redirects the Nurse to the main dashboard.
Entry Condition	The Nurse is at the C.A.R.E.S. System login interface on a workstation.
Exit Condition	The nurse has successfully logged into the system and is presented with the nurse-specific dashboard, with access to all necessary functionalities for their role.
Quality Requirements	
Included Relationships	Cheak In Patient Log Out See Patient Search Patient Edit Information Start Patient Admission Run Labs Start Discharge
Extended Relationships	Incorrect Login Empty Login

Use Case Name	Doctor Login
Participating Actors	Doctor
Flow of Events	<ol style="list-style-type: none"> 1. The Doctor initiates the process by entering their unique username and password into the C.A.R.E.S. System. 2. The system verifies the entered credentials against the database. 3. If the credentials are valid, the system redirects the Doctor to the main dashboard.
Entry Condition	The Doctor is at the C.A.R.E.S. System login interface on a workstation.
Exit Condition	The Doctor has successfully logged into the system and is presented with the nurse-specific dashboard, with access to all necessary functionalities for their role.
Quality Requirements	
Included Relationships	Cheak In Patient Log Out See Patient Search Patient Edit Information Complete Patient Admission Run Labs Complete Discharge
Extended Relationships	Incorrect Login Empty Login

Use Case Name	Check-In Patient
Participating Actors	Front Desk Staff
Flow of Events	<p>3. The front desk staff greets the patient and requests their first name, last name, address, insurance, emergency contact and, DOB and enters it into the C.A.R.E.S System</p> <p>4. The system creates and stores a new Patient and assigns a unique identifier to the Patient.</p> <p>5. The C.A.R.E.S. system returns a message validating the storage of the patient.</p>
Entry Condition	The patient arrives at the emergency room and the Front Desk Staff is ready to check them in using the C.A.R.E.S. system, AKA they are logged in
Exit Condition	The Front Desk Staff submits the patient information into the C.A.R.E.S. system and their information is stored. OR The Front Desk Staff cancels check in.
Quality Requirements	
Included Relationships	None
Extended Relationships	Incorrect Type Cancel Check In

Use Case Name	Search Patient Bills
Participating Actors	Billing Staff
Flow of Events	<ol style="list-style-type: none"> 1. The Billing Staff selects the option to search for patient bills within the C.A.R.E.S. system. 2. The staff enters the patient's unique identifier or other identifying information into the search function. 3. The system searches the database and displays a list of patients matching the search criteria. 4. The billing staff selects the correct patient record to view detailed billing information. 5. The system displays the patient's billing history, including itemized charges, payments, and balance due.
Entry Condition	The Billing Staff is logged into the C.A.R.E.S. system and needs to access a patient's billing information.
Exit Condition	The Billing Staff has successfully retrieved the patient's billing records from the C.A.R.E.S. system. OR The C.A.R.E.S. system is unable to find the patient and alerts Billing Staff
Quality Requirements	
Included Relationships	Log Out Search Patient Bills
Extended Relationships	None

Use Case Name	Log Out
Participating Actors	Any Authenticated User (Front Desk Staff, Nurse, Doctor, Billing Staff)
Flow of Events	<ol style="list-style-type: none"> 1. The User navigates to the log out option within the C.A.R.E.S. system interface. 2. The system terminates the user's session. 3. The system returns to the login screen, ensuring that no unauthorized access to the user's session can occur after they leave the workstation.
Entry Condition	The user is logged into the C.A.R.E.S. system and has completed their tasks.
Exit Condition	The user has successfully logged out of the C.A.R.E.S. system
Quality Requirements	
Included Relationships	None
Extended Relationships	None

Use Case Name	Incorrect Login
Participating Actors	Any Authenticated User (Front Desk Staff, Nurse, Doctor, Billing Staff)
Flow of Events	<ol style="list-style-type: none"> 1. The User enters their username and password. 2. The C.A.R.E.S. system validates the credentials against the database. 3. If the credentials are incorrect, the system displays an error message indicating the login attempt has failed.
Entry Condition	The User attempts to log in to the C.A.R.E.S. system.
Exit Condition	The User either successfully logs in after re-entering credentials OR The User remains at the login screen
Quality Requirements	Login error messages should not reveal which part of the credentials is incorrect to avoid aiding potential unauthorized users.
Included Relationships	None
Extended Relationships	None

Use Case Name	EditInformation
Participating Actors	Initiated by EmergencyRoomStaff Initiated by Nurse Initiated by Doctor
Flow of Events	<ol style="list-style-type: none"> 1. The EmergencyRoomStaff/Nurse/Doctor clicks the “Edit Information” button on the portal dashboard. 2. The dashboard enables the searched patient’s information to be changed by each field box. 3. The EmergencyRoomStaff/Nurse/Doctor fills in what fields of the the patient that needs to be filled/updated. Each field remains unchanged until the EmergencyRoomStaff/Nurse/Doctor clicks the submit button 4. The EmergencyRoomStaff/Nurse/Doctor clicks the submit button. 5. The CARES System checks to make sure that all fields were inputted correctly (no errors in numbers or data type) 6. The CARES System displays the edited information in the patient’s display portal.
Entry Condition	The EmergencyRoomStaff/Nurse/Doctor is logged into the CARES System
Exit Condition	The EmergencyRoomStaff/Nurse/Doctor has clicked the submit button for all additions/changes made to the patient’s information and the CARES System does not throw any errors in the enter fields.
Quality Requirements	
Included Relationships	NurseLogin DoctorLogin
Extended Relationships	IncorrectType

Use Case Name	StartPatientAdmission
Participating Actors	Initiated by Nurse Initiated by Doctor
Flow of Events	<ol style="list-style-type: none"> 1. The Nurse/Doctor clicks the “Request Admission” button in the portal dashboard 2. The dashboard responds with a message saying “sent Admission Request” 3. The CARES System sends the request to the Doctor, who is the only staff member that can approve the admission.
Entry Condition	The Nurse/Doctor is logged into the CARES System
Exit Condition	The Nurse/Doctor has clicked the “Request Admission” button, and the request is sent with no runtime error. In the case of the Nurse, there is nothing more for them to do.
Quality Requirements	
Included Relationships	NurseLogin DoctorLogin
Extended Relationships	

Use Case Name	CompletePatientAdmission
Participating Actors	Initiated by Nurse Initiated by Doctor
Flow of Events	<ol style="list-style-type: none"> 1. In the case of the Doctor, the Doctor presses the “Approve Admission” button. 2. That allows the Nurse/Doctor to click the button “Complete Admission”, and then the Nurse/Doctor can continue on with any tests and treatments
Entry Condition	The Nurse/Doctor are logged into the CARES System.
Exit Condition	The Nurse/Doctor has clicked “Complete Admission” the CARES System makes sure that Admission was started and approved by
Quality Requirements	
Included Relationships	NurseLogin DoctorLogin
Extended Relationships	AdmissionNotStarted AdmissionNotApproved

Use Case Name	RunLabs
Participating Actors	Initiated by Nurse Initiated by Doctor
Flow of Events	<ol style="list-style-type: none"> 1. The Nurse/Doctor has clicked the “Run Labs” button with any of the checkboxes for corresponding Lab types. 2. The CARES System produces lab results for the labs chosen, and displays them in the result section of the patient dashboard.
Entry Condition	The Nurse/Doctor is logged into the CARES System.
Exit Condition	The CARES System has produced the requested labs’ results in the result section of the dashboard.
Quality Requirements	
Included Relationships	NurseLogin DoctorLogin
Extended Relationships	NoLabsChosen

Use Case Name	Doctor Diagnoses a patient
Participating Actors	Doctor
Flow of Events	<ol style="list-style-type: none"> 1. The doctor first logs into the C.A.R.E.S. System using their unique username and password. 2. The system verifies the entered credentials against the database. 3. If the credentials are valid, the system redirects the Doctor to the main C.A.R.E.S. dashboard. 4. The doctor selects the Diagnosis option and starts the patient's diagnosis. 5. The doctor selects the disease/condition of the patient. 6. The doctor adds notes/comments.
Entry Condition	The Doctor is at the C.A.R.E.S. System login interface on a workstation.
Exit Condition	The doctor can log out of the C.A.R.E.S. system after the successful diagnosis of a patient.
Quality Requirements	
Included Relationships	Log In Search Patient Prescribe Log Out
Extended Relationships	

Use Case Name	Doctor prescribes medicine
Participating Actors	Doctor
Flow of Events	<ol style="list-style-type: none"> 1. The doctor first logs into the C.A.R.E.S. System using their unique username and password. 2. The system verifies the entered credentials against the database. 3. If the credentials are valid, the system redirects the Doctor to the main C.A.R.E.S. dashboard. 4. The doctor selects the medicine/(s) to be prescribed from the list of medications available based on the diagnosis.
Entry Condition	The Doctor is at the C.A.R.E.S. System login interface on a workstation.
Exit Condition	The doctor can log out of the C.A.R.E.S. system after the successful prescription.
Quality Requirements	
Included Relationships	Log In Diagnose Log Out
Extended Relationships	

Use Case Name	Doctor starts the patient discharge
Participating Actors	Doctor
Flow of Events	<ol style="list-style-type: none"> 1. The doctor first logs into the C.A.R.E.S. System using their unique username and password. 2. The system verifies the entered credentials against the database. 3. If the credentials are valid, the system redirects the Doctor to the main C.A.R.E.S. dashboard. 4. The doctor selects the Discharge option to start the patient's discharge.
Entry Condition	The Doctor is at the C.A.R.E.S. System login interface on a workstation.
Exit Condition	The doctor successfully starts the patient's discharge which can be completed by the doctor or nurse.
Quality Requirements	
Included Relationships	Log In Log Out
Extended Relationships	

Use Case Name	Doctor completes discharge
Participating Actors	Doctor
Flow of Events	<ol style="list-style-type: none"> 1. The doctor first logs into the C.A.R.E.S. System using their unique username and password. 2. The system verifies the entered credentials against the database. 3. If the credentials are valid, the system redirects the Doctor to the main C.A.R.E.S. dashboard. 4. The doctor selects the started discharge to finish the discharge process.
Entry Condition	The Doctor is at the C.A.R.E.S. System login interface on a workstation.
Exit Condition	The doctor successfully completes the discharge of the patient and logs out of the C.A.R.E.S. System.
Quality Requirements	
Included Relationships	Log In Start Discharge Log Out
Extended Relationships	Discharge not started.

Use Case Name	Nurse completes discharge
Participating Actors	Nurse
Flow of Events	<ol style="list-style-type: none"> 1. The Nurse first logs into the C.A.R.E.S. System using their unique username and password. 2. The system verifies the entered credentials against the database. 3. If the credentials are valid, the system redirects the Nurse to the nurse-specific C.A.R.E.S. dashboard. 4. The nurse selects the started discharge to finish the discharge process. 5. The Nurse adds the required discharge instructions.
Entry Condition	The Nurse is at the C.A.R.E.S. System login interface on a workstation.
Exit Condition	The Nurse successfully completes the discharge of the patient and logs out of the C.A.R.E.S. System.
Quality Requirements	
Included Relationships	Log In Start Discharge Log Out
Extended Relationships	Discharge not started.

Use Case Name	Generation of bill and summary after discharge.
Participating Actors	Doctor
Flow of Events	<ol style="list-style-type: none"> 1. The doctor is logged in, has completed discharge, and is at the bill and summary generator interface. . 2. The discharged patient's bill and summary is generated. 3. After the generation of the bill and summary, the patient is dismissed from the system.
Entry Condition	The Doctor is at the bill and summary interface after the completion of a patient's discharge.
Exit Condition	After the successful completion of the bill and summary generation of the patient, the Doctor logs out of the C.A.R.E.S. System.
Quality Requirements	
Included Relationships	Log In Complete Discharge Log Out
Extended Relationships	

Use Case Name	Discharge not started
Participating Actors	Doctor, Nurse
Flow of Events	<ol style="list-style-type: none"> 1. The doctor can start the discharge of a patient when the discharge has not yet started when they go into completing discharge. 2. The nurse will be unable to access the discharge completion portion if the discharge has not yet been started by the doctor.
Entry Condition	The Doctor or Nurse is at the Discharge completion interface.
Exit Condition	Doctor starts discharge which they can complete or a nurse can complete, or the Nurse is unable to complete discharge as it has not been started.
Quality Requirements	
Included Relationships	Log In Start Discharge Log Out
Extended Relationships	Complete Discharge

Use Case Name	Search Patient
Participating Actors	Doctor, Nurse
Flow of Events	<ol style="list-style-type: none"> 1. After the front desk has checked a patient in, a Doctor or Nurse can both search for a patient within the C.A.R.E.S. System. 2. The doctor or nurse puts in the patient ID or other identifying information into the search bar. 3. The system then searches the database and displays the patient/(s) matching the search in the results. 4. The doctor or patient then selects the correct patient whose record they need to update or view. 5. The system will then allow the Doctor/Nurse to carry out the functions that they are eligible to access. 6. The doctor can diagnose, prescribe medication, etc, and the nurse can admit the patient, etc. from there.
Entry Condition	The Doctor or Nurse is at the search patient portal.
Exit Condition	The Doctor or Nurse has accessed the specific patient's profile that was created upon check-in with all the information related to the patient's case.
Quality Requirements	
Included Relationships	Log In Log Out
Extended Relationships	

Use Case Name	Dismiss Patient
Participating Actors	Doctor, Nurse
Flow of Events	<ol style="list-style-type: none"> 1. Nurse/Doctor logs into C.A.R.E.S System, and looks up patient using patient ID which was generated upon check-in. 2. After the patient has been seen and if they do not require admission to the hospital, the Doctor or nurse can Dismiss the patient.
Entry Condition	The Doctor or Nurse is at the search patient portal.
Exit Condition	The Doctor or Nurse has dismissed the specific patient and can log out.
Quality Requirements	
Included Relationships	Log In Log Out
Extended Relationships	

Scenario Name	Patient discharge
Participating Actors	Brown: Doctor Mark: Patient Ashley: Nurse
Flow of Events	<ol style="list-style-type: none"> 1. Dr. Brown walks into Mark's hospital room, and informs him that he is ready to be discharged. 2. Mark is ready to go home and waiting by his hospital bed for the discharge to begin. 3. Dr. Brown uses his credentials to log into the C.A.R.E.S. System and is taken to the main dashboard. 4. Dr. Brown then selects the discharge option and starts inputting Marks's information for his discharge from the hospital. 5. Dr. Brown has started the discharge and leaves the completion of the discharge to Ashley the nurse in charge of Mark. 6. Dr. Brown logs out of the system, tells Mark that Ashley will take care of his discharge, and goes on to his next patient. 7. Ashley logs into the C.A.R.E.S. System using her credentials and is taken to the nurse-specific dashboard. 8. She completes the discharge process. 9. Ashley adds all the necessary discharge instructions as per Dr. Brown's instructions. . 10. A bill and summary are generated for Mark which is given to Mark. 11. Mark is automatically dismissed from the system, and Ashley logs out of the system. 12. Mark takes his belongings, thanks Ashley, and leaves the hospital building to go home.

Scenario Name	Emergency Room Staff Edits a Patient's Information
Participating Actors	Patricia: EmergencyRoomStaff Connor: Patient
Flow of Events	<ol style="list-style-type: none">1. Patricia is stationed at the front desk of the emergency room department. She has logged in to one of the computer at the desk and has the CARES System open and ready to go.2. A man enters the emergency room from the public entrance and starts to walk over to the front desk. Patricia checks him in by asking for his information and setting up a patient profile for him.3. Connor goes to sit down in the waiting area to be called by a Nurse. He then forgets that he gave Patricia the wrong permanent living address because he recently moved to an apartment across town.4. Connor walks up to the front desk again, and talks with Patricia about changing his patient information.5. Patricia looks Connor by his first and last name in the CARES Patient Dashboard. The CARES System responds when Patricia clicks the "Search Patient" button, displaying the Patient's info if he his name was enter correctly.6. Patricia changes the permanent living address by entering into the field the new address. Then, the changes are finalized when she clicks the "Edit Information" button. The CARES System responds by inserted the changes into Connor's patient profile.7. Patricia says to Connor that he is all set and can sit back down. Patricia can either leave the CARES System open on her computer or logout by clicking the "Logout" button.

Scenario Name	Patient Check In
Participating Actors	Sam: Front Desk Staff John: Patient
Flow of Events	<ol style="list-style-type: none"> 1. Sam is sitting at the front desk in the emergency room lobby with the login screen for the C.A.R.E.S System open. 1. John enters the room and approaches the front desk where Sam is currently seated. 2. John approaches Sam at the front desk and asks to be checked in to see a doctor about sever pain in their chest. 3. Sam uses his username and password to login into the C.A.R.E.S. System and is meet with a screen to check in a new patient. 2. Sam asks John for their information including his first name, last name, address, insurance, emergency contact and, DOB and enters it into the C.A.R.E.S System 4. Sam then clicks the create patent button and logs out of the C.A.R.E.S. System for security reasons. 5. Sam gives John the ID the System generated for him. 6. Sam tells john to take a seat and they will be called when someone is ready for them to be seen.