

Drug Table Tests

Scenario	Input Values	Expected Outcome	Actual Outcome	Notes
Add Valid Drug	DrugID = test1, Name = drug1, SideEffects = side1, Benefits = ben1	The system successfully adds the record. A confirmation message ('added successfully') appears in the UI and terminal. The UI updates to reflect the new data.	The system successfully adds the record. Confirmation message appears in the UI and terminal. The UI updates correctly.	
Add Drug with Missing Data	DrugID = test2, Name = drug2, SideEffects = side2, Benefits = (empty)	The system accepts the input and saves an empty string for Benefits. A confirmation message appears in the UI and terminal. UI updates.	The system allows the missing Benefits field, stores an empty string, and updates the UI.	Benefits is not required. Test what happens if all fields except DrugID are missing.
Add Drug with Missing Primary Key	DrugID = (empty), Name = drug4, SideEffects = side4, Benefits = ben4	The system should display an error message stating "Drug ID cannot be empty" and prevent the record from being added.	Error message appears: "Drug ID cannot be empty." The record is not added.	White spaces would also cause the same outcome.
Add Drug with a field exceeding max characters	DrugID = id Name= name SideEffects = Sides Benefits = (151 characters)	The UI should highlight the Benefits input red. Selecting save should show an error stating that Benefits exceeds 150 characters.	The relevant UI box is highlighted red and when saving the error stating that Benefits exceeds 150 characters appears.	This works when both adding and editing.
Add Drug with existing PK	DrugID = id	The UI should show an error with the appropriate error message.	The UI shows DrugID already exists	PK should be unique.

Scenario	Input Values	Expected Outcome	Actual Outcome	Notes
Add Drug with special characters in the fields	DrugID = id\$ Name= name! SideEffects= sides# Benefits=bens^	Same behaviour as adding valid data. Drug will be submitted and the UI refreshed.	Same behaviour as adding valid data. Drug added and UI rereshes	Works the same way with Edit.
Edit Highlighted Drug	Select an existing row, change Name = drug5	The system updates the record. A confirmation message ("drug updated successfully") appears, and the UI updates.	The system updates the record. Confirmation message appears, and UI updates.	
Edit Highlighted Drug PK	Select an existing row, try changing DrugID	The Drug ID field should be uneditable. Nothing happens.	The Drug ID field is uneditable. No changes occur.	Primary keys are locked to prevent data integrity issues.
Edit Without Highlighting Row	Try clicking "Edit" without selecting a row	The system should prompt "Please select a drug first."	The system prompts "Please select a drug first."	
Delete Highlighted Drug	Select an existing row, click Delete	The system should display a confirmation prompt: "Are you sure you want to delete this item?" Clicking "Yes" removes the item and updates the UI.	The system displays the confirmation prompt. Clicking "Yes" deletes the item and updates the UI.	Clicking No makes the confirmation disappear and nothing else happens.
Delete Without Highlighting Row	Try clicking "Delete" without selecting a row	The system should prompt "Please select a drug first."	The system prompts "Please select a drug first."	
Advanced Filter existing drug	Open filter, enter Name = drug3, click Filter	The system filters the results and displays all drugs containing "drug3" in the name.	The system filters results correctly.	Search is NOT case sensitive. Partial match also works(searching pirin for name will show aspirin)
Advanced Filter non-existent drug	Open filter, enter Name = drug33333333, click Filter	The system should display an empty table with no matching results.	The system correctly shows an empty table.	
Advanced Filter all	Open filter, leave all fields blank,	The system should show all	The system displays all	

Scenario	Input Values	Expected Outcome	Actual Outcome	Notes
fields empty	click Filter	drugs without applying filters.	rows.	
Advanced Filter multiple fields	Open filter, enter Name = drug3, SideEffects = side1, click Filter	The system filters results for multiple fields (Name and SideEffects).	The system filters results for both fields and updates the UI accordingly.	
Refresh on main page	Click Refresh	The system reloads the drug list, displaying all existing drugs.	The system reloads the drug list.	
Refresh after filter	Click Refresh after using filter	The system resets all filters and displays the full drug list.	The system resets filters and shows all drugs.	

Prescription Table Tests

Scenario	Input Values	Expected Outcome	Actual Outcome	Notes
Add Valid Prescription	PrescriptionID = pres1, Date = (auto-filled), DrugID = drug1, DoctorID = doc1, PatientID = pat1, Dosage = 5, Duration = 10, Comment = "Take with food"	The system successfully adds the prescription. Date is auto-filled, and the UI updates. Confirmation message appears.	Prescription is added successfully. Date auto-fills to current date, and the system confirms the addition. UI updates.	Auto filled date can be edited on creation.
Add Missing Data (Non-Mandatory Fields)	PrescriptionID = pres2, Date = (auto-filled), DrugID = drug2, DoctorID = doc2, PatientID = pat2, Dosage = 10, Duration = 20, Comment = (empty)	The system accepts the missing Comment field. The prescription is added successfully, with default values for missing fields.	Prescription is added successfully. The empty Comment field is accepted, and UI updates accordingly.	Only mandatory field is the PK.
Add Invalid Dosage	PrescriptionID = pres3, Date = (auto-filled), DrugID = drug3,	The system displays an error message: "Please enter valid	Error message appears: "Please enter valid numbers for	Dosage is stored as an integer in the db.

Scenario	Input Values	Expected Outcome	Actual Outcome	Notes
	DoctorID = doc3, PatientID = pat3, Dosage = "five", Duration = 10, Comment = "Once a day"	numbers for dosage and duration or leave them empty." The record is not added.	dosage and duration or leave them empty."	
Add Invalid Duration	PrescriptionID = pres4, Date = (auto-filled), DrugID = drug4, DoctorID = doc4, PatientID = pat4, Dosage = 10, Duration = "two", Comment = "Morning and night"	The system displays an error message: "Please enter valid numbers for dosage and duration or leave them empty." The record is not added.	Error message appears: "Please enter valid numbers for dosage and duration or leave them empty."	Duration is stored as an integer in the db.
Add Prescription with Missing Primary Key	PrescriptionID = (empty), Date = (auto-filled), DrugID = drug5, DoctorID = doc5, PatientID = pat5, Dosage = 5, Duration = 7, Comment = "Before meals"	The system displays an error message: "Prescription ID cannot be empty" and prevents the record from being added.	Error message appears: "Prescription ID cannot be empty." The record is not added.	Empty spaces would also behave the same for the PK.
Add Prescription with a field exceeding suggested length	PrescriptionID= id Date = (auto-filled) DrugID = drug DoctorID=doc PatientID = pat Dosage = 5 Duration = 5 Comment = (201 characters)	The input box for comment should be highlighted red and when trying to save an error stating comment exceeds the limit should show	The input box for comment is highlighted red and an error stating comment exceeds the limit shows up	
Add Prescription with a duplicate PK	PrescriptionID = (existing id)	When saving an error should state that the prescription id already exists	An error pops up stating that prescription id already exists	
Edit Highlighted Prescription (Valid)	Select an existing prescription, change Dosage = 15, Duration = 30	The system updates the prescription. Confirmation message ("Prescription updated successfully") appears, and the UI updates.	Prescription is updated successfully. UI updates to reflect changes in Dosage and Duration.	

Scenario	Input Values	Expected Outcome	Actual Outcome	Notes
Edit Highlighted Prescription (Invalid Dosage)	Select an existing prescription, change Dosage = "twenty", Duration = 30	The system displays an error message: "Please enter valid numbers for dosage and duration or leave them empty."	Error message appears: "Please enter valid numbers for dosage and duration or leave them empty." No changes are saved.	
Edit Highlighted Prescription (Invalid Duration)	Select an existing prescription, change Dosage = 10, Duration = "two"	The system displays an error message: "Please enter valid numbers for dosage and duration or leave them empty."	Error message appears: "Please enter valid numbers for dosage and duration or leave them empty." No changes are saved.	
Edit Highlighted Prescription (PK)	Select an existing prescription, try changing PrescriptionID	The PrescriptionID field is uneditable. No changes occur.	The PrescriptionID field is uneditable. No changes occur.	
Edit Without Highlighting Prescription	Try clicking "Edit" without selecting a prescription	The system should prompt "Please select a prescription first."	The system prompts "Please select a prescription first."	
Delete Highlighted Prescription	Select an existing prescription, click Delete	The system displays a confirmation prompt: "Are you sure you want to delete this prescription?" Clicking "Yes" removes the item and updates the UI.	The system displays the confirmation prompt. Clicking "Yes" deletes the prescription and updates the UI.	Clicking No makes the confirmation disappear and nothing else happens.
Delete Without Highlighting Prescription	Try clicking "Delete" without selecting a prescription	The system should prompt "Please select a prescription first."	The system prompts "Please select a prescription first."	
Single Filter	Open filter, enter DrugID = drug1, click Filter	The system filters the results and displays all prescriptions for the drug with DrugID = drug1.	The system filters correctly, displaying only prescriptions for the selected DrugID.	All filters match values containing filter, not EXACT filter.

Scenario	Input Values	Expected Outcome	Actual Outcome	Notes
Multiple Field Filter	Open filter, enter DrugID = drug1, Dosage = 10, click Filter	The system filters the results and displays all prescriptions where DrugID = drug1 and Dosage = 10.	The system filters correctly, displaying only prescriptions that match both DrugID = drug1 and Dosage = 10.	
Filter Non-Existent Prescription	Open filter, enter DrugID = drugXYZ, click Filter	The system shows an empty list since no prescriptions match the filter criteria.	The system displays an empty table since no matching prescriptions exist.	
Refresh After Filter	Click Refresh after using filter	The system resets all filters and shows the full prescription list.	The system resets filters and shows all prescriptions.	
Refresh on Main Page	Click Refresh	The system reloads the prescription list, displaying all existing prescriptions.	The system reloads the prescription list.	

Insurance Table Tests

Scenario	Input Values	Expected Outcome	Actual Outcome	Notes
Add Valid Insurance	InsuranceID = ins1, Company = "HealthCare Inc.", Address = "123 Street", Phone = "1234567890"	The system successfully adds the record. A confirmation message appears, and the UI updates.	The system successfully adds the record. Confirmation message appears, and UI updates.	
Add Insurance with Missing Non-Mandatory Fields	InsuranceID = ins2, Company = "SafeHealth", Address = (empty), Phone = (empty)	The system accepts the input, saves empty values for missing fields, and updates the UI.	The system allows missing non-PK fields and updates the UI correctly.	Non-PK fields are optional. .

Scenario	Input Values	Expected Outcome	Actual Outcome	Notes
Add Insurance with Missing Primary Key	InsuranceID = (empty), Company = "MediCover", Address = "456 Avenue", Phone = "9876543210"	The system displays an error message: "Insurance ID cannot be empty" and prevents the record from being added.	Error message appears: "Insurance ID cannot be empty." The record is not added.	
Add Insurance with fields exceeding recommended length	InsuranceID = (51 characters long)	The relevant input field should turn red and when trying to save an error will say that the field exceeds the limit.	Relevant input field turns red and when saving the appropriate error popup appears.	
Add insurance with duplicate PK	InsuranceID = (existing PK)	When saving an error should appear stating that the key is duplicate.	An error appears stating that the key is duplicate.	
Edit Highlighted Insurance (Valid)	Select an existing row, change Company = "GlobalHealth"	The system updates the record. A confirmation message appears, and the UI updates.	The system updates the record. Confirmation message appears, and UI updates.	
Edit Highlighted Insurance (PK)	Select an existing row, try changing InsuranceID	The InsuranceID field should be uneditable. Nothing happens.	The InsuranceID field is uneditable. No changes occur.	
Edit Without Highlighting Insurance	Try clicking "Edit" without selecting a row	The system should prompt "Please select an insurance first."	The system prompts "Please select an insurance first."	
Delete Highlighted Insurance	Select an existing row, click Delete	The system should display a confirmation prompt: "Are you sure you want to delete this item?" Clicking "Yes" removes the item and updates the UI.	The system displays the confirmation prompt. Clicking "Yes" deletes the item and updates the UI.	
Delete Without Highlighting Insurance	Try clicking "Delete" without selecting a row	The system should prompt "Please select an insurance first."	The system prompts "Please select an insurance first."	
Single Filter	Open filter, enter Company =	The system filters the results and	The system filters correctly,	

Scenario	Input Values	Expected Outcome	Actual Outcome	Notes
	"HealthCare", click Filter	displays all insurances with "HealthCare" in the company name.	showing only matching records.	
Multiple Field Filter	Open filter, enter Company = "HealthCare", Phone = "1234567890", click Filter	The system filters results and displays all matching records.	The system correctly applies multiple filters and displays the correct results.	
Filter Non-Existent Insurance	Open filter, enter Company = "Nonexistent", click Filter	The system should display an empty table with no matching results.	The system correctly shows an empty table.	
Refresh After Filter	Click Refresh after using filter	The system resets all filters and displays the full insurance list.	The system resets filters and shows all insurances.	
Refresh on Main Page	Click Refresh	The system reloads the insurance list, displaying all existing records.	The system reloads the insurance list.	

Visit Table Test Case Report

Scenario	Input Values	Expected Outcome	Actual Outcome	Notes
Add Valid Visit	DateOfVisit = 2025-03-11, DoctorID = doc1, PatientID = pat1, Symptoms = "Cough", Diagnosis = "Flu"	The system successfully adds the record. A confirmation message appears, and the UI updates.	The system successfully adds the record. Confirmation message appears, and UI updates.	
Add Visit with Missing Non-Mandatory Fields	DateOfVisit = 2025-03-11, DoctorID = doc2, PatientID = pat2, Symptoms = (empty),	The system accepts the input, saves empty values for missing fields, and updates the UI.	The system allows missing non-PK fields and updates the UI correctly.	

Scenario	Input Values	Expected Outcome	Actual Outcome	Notes
	Diagnosis = (empty)			
Add Visit with Missing Primary Key	DateOfVisit = (empty), DoctorID = doc3, PatientID = pat3, Symptoms = "Headache", Diagnosis = "Migraine"	The system displays an error message: "Date of visit cannot be empty" and prevents the record from being added.	Error message appears: "Date of visit cannot be empty." The record is not added.	Composite PK. If the date isn't empty the prompt will ask that doc and patient aren't empty.
Add Visit with field exceeding max length	DateOfVisit = (auto fill), DoctorID = doc Patientid = pat Symptoms = (201 characters)	The symptoms field should be highlighted red and when trying to save an error should inform the user that symptoms exceeds the limit	Symptoms field turns red and on save an error message warns the user that symptoms exceeds the 200 character limit.	
Add visit with duplicate PK	DateOfVisit = (existing date), DoctorID = (doctor id of existing date), PatientID = (patient id of existing date)	On save an error should display telling the user that the PK is duplicate.	An error pops up telling the user that the date and the 2 ids already exist.	
Edit Highlighted Visit (Valid)	Select an existing row, change Diagnosis = "Severe Flu"	The system updates the record. A confirmation message appears, and the UI updates.	The system updates the record. Confirmation message appears, and UI updates.	
Edit Highlighted Visit (PK)	Select an existing row, try changing DateOfVisit, DoctorID, or PatientID	The fields should be uneditable. Nothing happens.	The fields are uneditable. No changes occur.	Composite primary keys cannot be modified.
Edit Without Highlighting Visit	Try clicking "Edit" without selecting a row	The system should prompt "Please select a visit first."	The system prompts "Please select a visit first."	Test behavior when attempting to edit without selecting a row.
Delete Highlighted Visit	Select an existing row, click Delete	The system should display a confirmation prompt: "Are you	The system displays the confirmation prompt. Clicking	What happens if a deleted visit is referenced in

Scenario	Input Values	Expected Outcome	Actual Outcome	Notes
		sure you want to delete this item?" Clicking "Yes" removes the item and updates the UI.	"Yes" deletes the item and updates the UI.	other records?
Delete Without Highlighting Visit	Try clicking "Delete" without selecting a row	The system should prompt "Please select a visit first."	The system prompts "Please select a visit first."	Test deleting without selecting a row first.
Single Filter	Open filter, enter DoctorID = doc1, click Filter	The system filters the results and displays all visits associated with "doc1".	The system filters correctly, showing only matching records.	Test basic single-field filtering.
Multiple Field Filter	Open filter, enter DoctorID = doc1, PatientID = pat3, click Filter	The system filters results and displays all matching records.	The system correctly applies multiple filters and displays the correct results.	Test filtering with multiple fields.
Filter Non-Existent Visit	Open filter, enter DoctorID = doc999, click Filter	The system should display an empty table with no matching results.	The system correctly shows an empty table.	Test filtering for non-existent records.
Refresh After Filter	Click Refresh after using filter	The system resets all filters and displays the full visit list.	The system resets filters and shows all visits.	Test if filters are properly reset upon refresh.
Refresh on Main Page	Click Refresh	The system reloads the visit list, displaying all existing records.	The system reloads the visit list.	Test page reloads correctly.

Patient Table Tests

Scenario	Input Values	Expected Outcome	Actual Outcome	Notes
Add Valid Patient	PatientID = pat1, FirstName = John, Surname = Doe, Postcode = "12345", Address = "123 Street", Phone = "123456789", Email = " john.doe@example.com ",	The system successfully adds the patient with all fields filled, including the	The system successfully adds the record. Confirmation message	

Scenario	Input Values	Expected Outcome	Actual Outcome	Notes
	InsuranceID = ins1, Insurance checkbox checked	InsuranceID. Confirmation message appears. The UI updates with the new patient, showing InsuranceID as non-empty.	appears, UI updates with patient details and insurance linked.	
Add Patient without Insurance	PatientID = pat2, FirstName = Jane, Surname = Smith, Postcode = "67890", Address = "456 Avenue", Phone = "987654321", Email = " jane.smith@example.com ", InsuranceID = (empty), Insurance checkbox unchecked	The system successfully adds the patient without Insurance. The InsuranceID remains empty. A confirmation message appears in the UI and terminal. UI updates correctly.	The system successfully adds the record. Confirmation message appears, and UI updates with the patient details and empty InsuranceID.	If the checkbox is unchecked, the InsuranceID field is disabled.
Add Patient with Insurance box checked but no insurance ID	PatientID = ID, Insurance checkbox checked, InsuranceID = (empty)	Error stating that Insurance ID for insured patient cannot be empty shows up.	The appropriate "insurance id cannot be empty" error shows up.	
Add Patient with Missing Data (non-mandatory)	PatientID = pat3, FirstName = (empty), Surname = Smith, Postcode = "54321", Address = "789 Boulevard", Phone = "11222333", Email = " missing@example.com ", InsuranceID = ins2, Insurance checkbox checked	The system allows the missing FirstName, stores an empty string for FirstName. Confirmation message appears, and the UI updates.	The system adds the patient and stores an empty string for FirstName. Insurance is linked successfully.	
Add Patient with Missing Primary Key	PatientID = (empty), FirstName = Bob, Surname = White, Postcode = "1111", Address = "789 Park", Phone = "555666777", Email = " bob.white@example.com ",	The system should display an error message stating "Patient ID cannot be	Error message: "Patient ID cannot be empty." The record is not added.	

Scenario	Input Values	Expected Outcome	Actual Outcome	Notes
	InsuranceID = ins4, Insurance checkbox checked	empty" and prevent the record from being added.		
Add Patient with field exceeding max length	PatientID = l(51 characters long)	The input field should be highlighted red and on save there should be an error stating that the field exceeds the max	Input field is highlighted red and on save the appropriate error shows up.	
Add Patient with Duplicate PK	PatientID = (existing patient id)	On save, an error should state that the patient id already exists	An error shows up stating that the patient id already exists.	
Edit Highlighted Patient	Select an existing row, change FirstName = Tom	The system updates the record. A confirmation message ("Patient updated successfully") appears, and the UI updates.	The system updates the record. Confirmation message appears, and UI updates.	
Edit Patient and Change Insurance Status	Select existing row, uncheck the Insurance checkbox, leave InsuranceID empty	The system disables the InsuranceID field and removes the associated insurance link. Confirmation message appears. UI updates.	The system removes the linked InsuranceID and updates the UI accordingly. InsuranceID is empty after unchecking the checkbox.	
Edit without Highlighting Patient	Try clicking "Edit" without selecting a row	The system should prompt "Please select a patient first."	The system prompts "Please select a patient first."	
Delete Highlighted Patient	Select an existing row, click Delete	The system should display a confirmation	The system displays the confirmation	

Scenario	Input Values	Expected Outcome	Actual Outcome	Notes
		prompt: "Are you sure you want to delete this patient?" Clicking "Yes" removes the item and updates the UI.	prompt. Clicking "Yes" deletes the item and updates the UI.	
Delete Without Highlighting Patient	Try clicking "Delete" without selecting a row	The system should prompt "Please select a patient first."	The system prompts "Please select a patient first."	
Advanced Filter by Name (FirstName or Surname)	Open filter, enter FirstName = Tom, click Filter	The system filters the results and displays all patients containing "Tom" in the first name.	The system correctly filters results by FirstName. UI updates accordingly.	
Advanced Filter by Insurance	Open filter, enter InsuranceID = ins1, click Filter	The system filters the results for patients with the specific insurance ID.	The system correctly filters results by InsuranceID. UI updates accordingly.	InsuranceID checkbox does not appear in the advanced filter UI.
Advanced Filter multiple fields	Open filter, enter FirstName = Jane, Surname = Smith, click Filter	The system filters results for both FirstName and Surname.	The system filters results for both fields and updates the UI accordingly.	
Primary Doctor Button (With Visits)	Click "Primary Doctor" for patient with recorded visits (e.g., pat1)	The system should display the details of the primary doctor associated with the patient.	The system displays the primary doctor's details.	
Primary Doctor Button (Without Visits)	Click "Primary Doctor" for patient with no recorded visits (e.g., pat2)	The system should display the message: "No primary doctor found. The patient has no	The system displays the message "No primary doctor found. The patient has no	Test with patients who have no recorded visits.

Scenario	Input Values	Expected Outcome	Actual Outcome	Notes
		recorded visits."	recorded visits."	
Refresh on main page	Click Refresh	The system reloads the patient list, displaying all existing patients.	The system reloads the patient list.	
Refresh after filter	Click Refresh after using filter	The system resets all filters and displays the full patient list.	The system resets filters and shows all patients.	Does the filter state persist after a page reload?

Doctor Table Tests

Scenario	Input Values	Expected Outcome	Actual Outcome	Notes
Add Valid Doctor	DoctorID = doc1, FirstName = John, Surname = Doe, Address = "123 Main St", Email = "john.doe@example.com", Hospital = "City Hospital", Specialization = "Cardiology" (checkbox checked)	The system successfully adds the doctor. The specialization field is populated, and the UI updates. Confirmation message appears.	Doctor is added successfully with all fields filled, and UI updates correctly. Specialization field is enabled due to checkbox.	
Add Doctor with Missing Non-Mandatory Fields	DoctorID = doc2, FirstName = Jane, Surname = Smith, Address = "456 Oak Rd", Email = "jane.smith@example.com", Hospital = "Central Hospital", Specialization = (empty) (checkbox unchecked)	The system adds the doctor without the specialization field populated, and UI updates. No error message is shown.	Doctor is added successfully. Specialization field is empty as the checkbox was unchecked. UI updates with missing specialization.	
Add Missing DoctorID	DoctorID = (empty), FirstName = Alice, Surname = Brown, Address = "321	The system displays an error	Error message appears: "Doctor ID	

Scenario	Input Values	Expected Outcome	Actual Outcome	Notes
	Birch St", Email = " alice.brown@example.com ", Hospital = "Sunrise Hospital", Specialization = "Pediatrics" (checkbox checked)	message: "Doctor ID cannot be empty" and prevents the record from being added.	cannot be empty." The record is not added.	
Add doctor with Specialization box checked but no specialization field	DoctorID = id, specialization box checked, specialization = (empty)	Error should display stating that specialization cannot be blank for specialists	Error stating that specialization cannot be empty for specialists appears.	
Add Doctor with fields exceeding max length	DoctorId = (51 characters long)	Input field should highlight red and an error should appear when trying to save stating that the option exceed the max.	Input field highlights red and the appropriate error message appears.	
Add Doctor with duplicate PK	Doctorid = (existing doctor id)	Error "doctor already exists" should appear.	Error "doctor already exists" shows up.	
Edit Highlighted Doctor (Valid)	Select an existing doctor, change FirstName = "Anna", Surname = "Green", Hospital = "Westside Hospital", Specialization = "Orthopedics" (checkbox checked)	The system successfully updates the doctor. Confirmation message ("Doctor updated successfully") appears, and the UI updates.	The doctor details are updated correctly. Confirmation message appears, and the UI reflects the changes.	
Edit Highlighted Doctor (Invalid Email)	Select an existing doctor, change Email = "invalid-email"	The system displays an error message: "Please enter a valid email address." The record is not updated.	Error message appears: "Please enter a valid email address." The doctor details are not updated.	
Edit Highlighted Doctor	Select an existing doctor, uncheck the specialization checkbox and clear Specialization field	The system removes the specialization field (makes it	Specialization is cleared, and the UI updates correctly.	

Scenario	Input Values	Expected Outcome	Actual Outcome	Notes
(Missing Specialization)		empty), and the UI updates.		
Edit Highlighted Doctor (PK)	Select an existing doctor, try changing DoctorID	The DoctorID field is uneditable. No changes occur.	The DoctorID field is uneditable, and no changes occur.	
Edit Without Highlighting Doctor	Try clicking "Edit" without selecting a doctor	The system prompts "Please select a doctor first."	The system prompts "Please select a doctor first."	
Delete Highlighted Doctor	Select an existing doctor, click Delete	The system displays a confirmation prompt: "Are you sure you want to delete this doctor?" Clicking "Yes" removes the doctor and updates the UI.	The confirmation prompt appears. Clicking "Yes" deletes the doctor, and the UI updates.	
Delete Without Highlighting Doctor	Try clicking "Delete" without selecting a doctor	The system prompts "Please select a doctor first."	The system prompts "Please select a doctor first."	
Single Filter	Open filter, enter Specialization = "Cardiology", click Filter	The system filters the results and displays all doctors with "Cardiology" specialization.	The system filters correctly, displaying only doctors with "Cardiology" specialization.	
Multiple Field Filter	Open filter, enter FirstName = "John", Specialization = "Cardiology", click Filter	The system filters the results and displays all doctors with the first name "John" and specialization "Cardiology."	The system filters correctly, displaying only doctors matching both FirstName and Specialization.	
Filter Non-Existent Doctor	Open filter, enter FirstName = "Nonexistent", click Filter	The system shows an empty list since no doctors match	The system displays an empty table since no matching doctors exist.	

Scenario	Input Values	Expected Outcome	Actual Outcome	Notes
		the filter criteria.		
Refresh After Filter	Click Refresh after using filter	The system resets all filters and shows the full doctor list.	The system resets filters and shows all doctors.	
Refresh on Main Page	Click Refresh	The system reloads the doctor list, displaying all existing doctors.	The system reloads the doctor list.	

General Functionality

Scenario	Input Values	Expected Outcome	Actual Outcome	Notes
Switch to Patient table view	Select Patient tab at the bottom of the UI	UI renders all Patients onto a table	UI renders all Patients onto a table	Functionality is the same for all tabs.
Filter table, switch to another table and then move back	Select Drug table. Filter DrugID=id Select Patient table Select Drug table again.	UI will keep displaying the filtered results.	UI still shows the filtered results.	All tables remember their previous state.
Exit Application	Select X on the top right.	Application should terminate.	Application terminates.	
Changes persists through sessions	Add new Drug, Exit application, Launch application, View Drugs panel	Drug previously added should still be in the list.	Drug is still in the list.	