

GROUP 98  
HOSPITAL BASE

LINK: <http://flip2.engr.oregonstate.edu:8040>

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## **Executive Summary**

After Step 1 feedback, we changed the wording of the project outline to underscore the entities in our database and to further explain the ways in which a potential client can benefit from our database.

After Step 2 feedback, we transferred the hand-drawn ER diagrams to high-quality computer generated images, and added varchar(255) to all attributes that accepted text data.

After Step 4 feedback, we added CREATE functionality to all entities. Also, we added the ability to SEARCH and BROWSE pertinent attributes for all entities.

Based on Step 5 feedback, we changed READ/BROWSE to display attributes other than the primary keys.

After Step 6 feedback, we changed INSERT and UPDATE forms where clients were forced to select or enter foreign keys. In their place we added a dropdown menu that displayed names associated with their respective foreign key. Also, in READ/BROWSE pages that displayed only foreign keys, we changed it to DISPLAY other attributes as well.

Finally, on our own, we realized that the M:M relation we had been implementing between Doctors and Patients is actually a 1:1 relationship. So, we decide to forgo that implementation and instead implement the 1:1 relationship between Staff and Patients. We removed the joining table Doctors\_Patients and added Staff\_Patients to reflect the change. We applied this change to our ER Diagram, Schema, Data Definition Queries, Data Manipulation Queries, and to the website's UI.

# CS 340 TEAM EVALUATION FORM

## DECEMBER 7, 2020

RATE YOUR TEAMS PERFORMANCE USING THE SCALE BELOW.

**1 = Strongly Disagree    2 = Disagree    3 = Agree    4 = Strongly Agree**

GROUP NUMBER	98	
NAME OF GROUP TEAM MEMBERS:	Abhash Sharma, Sanjay Ramanathan	
SCALE AND COMMENTS	RATING	ADDITIONAL COMMENTS
<b>HOW PREPARED WAS YOUR TEAM?</b> Research, reading, and assignment complete	4	
<b>HOW RESPONSIVE &amp; COMMUNICATIVE WERE YOU BOTH AS A TEAM?</b> Responded to requests and assignment modifications needed. Initiated and responded appropriately via email, Slack etc.	4	
<b>DID BOTH GROUP MEMBERS PARTICIPATE EQUALLY</b> Contributed best academic ability	4	
<b>DID YOU BOTH FOLLOW THE INITIAL TEAM CONTRACT?</b> Were both team members both positive and productive?	4	

Are there any suggestions for improvement for your team and what are your goals moving forward?

(Better communication, follow the contract better, modify the initial team contract, more contribution, etc?)?

## Project and Database Outline

### a) Overview:

A hospital consisting of 50+ doctors and staff members, 1000+ patients, and 5000+ orders and results, allows for quite a bit of complexity. There are five entities in the database: 1) Doctors, 2) Patients, 3) Staff, 4) Orders, and 5) Results. Among these 5 entities, there can be different types, multiple relationships, and numerous ways for information to get lost/mixed up.

A database with around 5-10 tables (for entities and relationships) in combination with a neat front-end display with about 3-5 pages, allows for a much easier and efficient way of viewing and managing this data.

Doctors would be able to put in Orders (Prescription, Blood Tests, X-Ray) for Patients. An Order need not be assigned to a Staff when first initiated. So, Staff can check the Orders that need to be fulfilled, assign themselves Orders that are within their expertise and time frame, fulfill those Orders accordingly and load up their Results.

Eventually, Doctors, in their own time, or in Patient's next visit would be able to check on the Results of their Order.

Our Database will allow a small hospital to initiate, track, and fulfill orders for all Patients that decide to get treatment there.

### b) Database outline, in words:

A database for a small clinic/hospital.

#### 1. **Doctors:** Records the details of Doctors that work in Hospital.

- doctorID: int, auto\_increment, unique, not NULL, PK
- lastName: varchar(255), not NULL
- firstName: varchar(255), not NULL
- department: varchar(255), not NULL
- Relationship (Doctors-Orders)(1:1:M): An Order can come from one and only one Doctor, while a Doctor can send zero to multiple Orders, doctorID is FK in Order.
- Relationship (Doctor-Patient)(1:1:M): All Patients must have one and only one primary Doctor, while a Doctor can be a primary Doctor for zero to multiple Patients, primaryDoctorID is a FK in Patient
- Implemented by: Sanjay Ramanathan

#### 2. **Patients:** All the Patients who are being/have been treated by the hospital

- patientID: int, auto\_increment, unique, not NULL, PK
- lastName: varchar(255), not NULL
- firstName: varchar(255), not NULL

- primaryDoctorID: assigns Doctor to a Patient, not NULL FK
  - Relationship (Patient-Order)(11:0M): an Order can be connected to just one Patient, but a Patient can have zero to multiple Orders. patientID is FK in Order.
  - Relationship (Patient-Staff)(0M:0M): A Patient can be handled by zero or multiple Staff and vice versa. Defined in Staff\_Patients table.
  - Relationship (Doctors-Patients)(11:0M): Doctors can have zero or many Patients and a Patient can have only one Doctor.
  - Implemented by: Sanjay Ramanathan
3. **Staff:** All types of Staff members currently active in the hospital
- staffID: int, auto\_increment, unique, not NULL, PK
  - staffType: (Nurse, Pharmacy, Lab Technician, Radiology, Neurology etc.), varchar(255), not NULL
  - lastName: varchar(255), not NULL
  - firstName: varchar(255), not NULL
  - Relationship (Staff-Order)(01:0M): A Staff can have zero or multiple Orders to handle. An Order can only be handled by one and only one Staff. staffID is FK in Order.
  - Relationship (Patient-Staff)(0M:0M): A Patient can be handled by zero or multiple Staff and vice versa. Defined in Staff\_Patients table.
  - Implemented by: Abhash Sharma
4. **Orders:** All the Orders made to Patients
- orderID: int, auto\_increment, unique, not NULL, PK
  - date: date, not NULL, date the Order was generated
  - time: time, not NULL, time the Order was generated
  - orderType: (prescription, x-ray, blood test, specialist appointment, etc.), varchar(255), not NULL
  - patientID: used to connect Patient to Order, not NULL, FK
  - doctorID: used to connect an Order to Doctor, not NULL, FK
  - staffID: NULL (until assignment), used to connect an Order to Staff, FK
  - Relationship (Order-Result)(11:11): An Order can have one and only one Result. And a Result can have one and only one Order. orderID is FK in Results
  - Implemented by: Abhash Sharma
5. **Results:** The Results of all the Orders made to Patients
- resultID: int, auto\_increment, unique, not NULL, PK
  - status (Received/in progress/Completed/Sent): varchar(255), not NULL
  - orderID: used to connect an Order to a Result, not NULL, FK

- date: NULL, date on which the Result was generated (on which the Order was fulfilled)
  - accessedByDoctor: bool, FALSE, changed to TRUE only after doctorID in Order or patientID's primaryDoctorID accesses the Results.
  - Implemented by: Abhash Sharma
6. **Staff\_Patients:** Assigns a Staff to a Patient (M:M relationship table)
- staffID: the Staff being assigned to a Patient, not NULL, FK
  - patientID: the Patient being assigned to a Doctor, not NULL, FK
  - Implemented by: Sanjay Ramanathan

**Identify entities and M:M relationship to implement and assign to team members.**

- Sanjay Ramanathan and Abhash Sharma will implement Tables: Doctors, Patients, Staff, Orders, Results, and Staff\_Patients.
- The one many-to-many relationships from Step 1 is between Staff and Patients.
- Sanjay Ramanathan will implement the Staff\_Patients 0M:0M relationship.
- Other site features such as the home page and error pages will be implemented by Sanjay Ramanathan and Abhash Sharma.

### HospitalBase ER Diagram

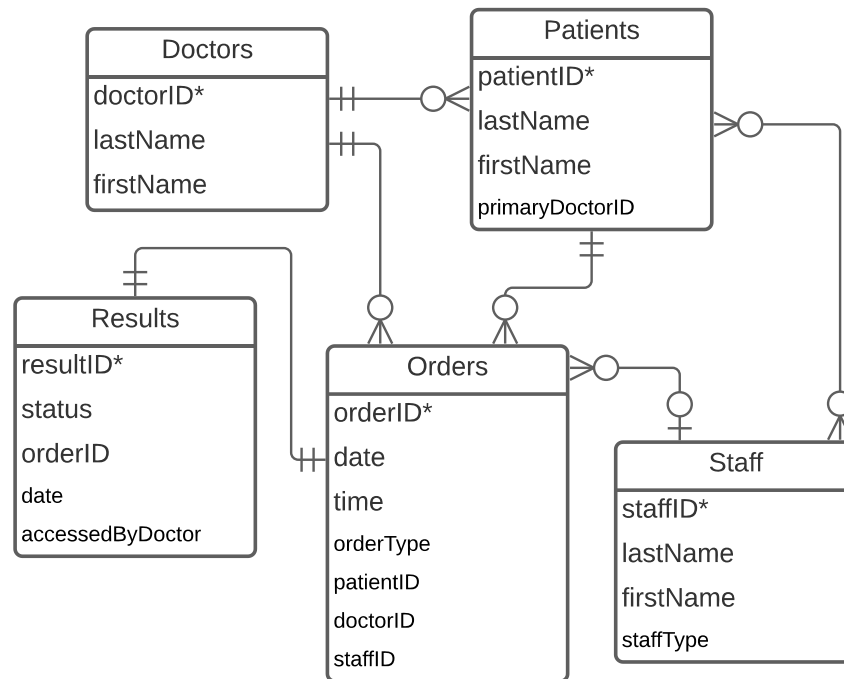


Figure 3. ER Diagram For HospitalBase Database

## HospitalBase Schema

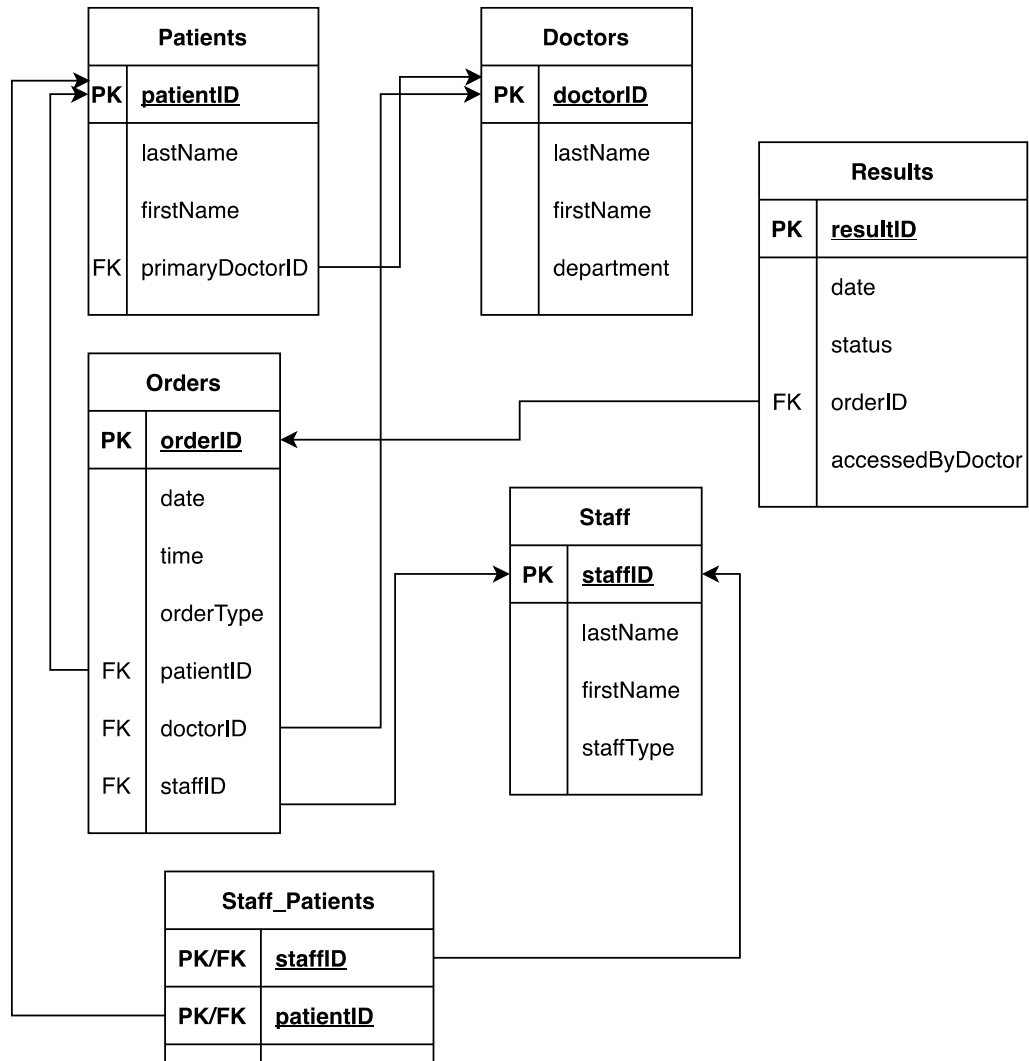


Figure 4. Schema For HospitalBase Database



### ADD NEW Doctor to Doctors Page (Pre-Add)

## HospitalBase

Add New Doctor

Doctor Details

First Name: Test Doctor First Name

Last Name: Test Doctor Last Name

Department: Test Doctor Department

Add Doctor

Return to Doctors Page

Return to Main Page

### ADD NEW Doctor to Doctors Page (Post-Add)

## HospitalBase

Doctor Added!

Add New Doctor

Doctor Details

First Name:

Last Name:

Department:

Add Doctor

Return to Doctors Page

Return to Main Page

### BROWSE Doctors Page

## HospitalBase

ID	First Name	Last Name	Department		
1	Ben	Carson	Neurology	Update	Delete
2	Siddharth	Mukherjee	Oncology	Update	Delete
3	Atul	Gawande	Endocrinology	Update	Delete
4	Oliver	Sacks	Neurology	Update	Delete
5	Hippocrates	of Kos	Internal Medicine	Update	Delete
6	Test Doctor First Name	Test Doctor Last Name	Test Doctor Department	Update	Delete

Search Doctors

Return to Doctors Page

Return to Main Page

### SEARCH Doctor in Doctors Page (Pre-Search)

## HospitalBase

### Search Doctors

Doctor Details

First Name/Last Name:

### SEARCH Doctor in Doctors Page (Post-Search)

## HospitalBase

### 1 Doctors Found!

ID	First Name	Last Name	Department	
6	Test Doctor First Name	Test Doctor Last Name	Test Doctor Department	<input type="button" value="Update"/> <input type="button" value="Delete"/>

### UPDATE Doctor in Doctors Page (Pre-Update)

## HospitalBase

### Update Doctor

Doctor Details

First Name:  Last Name:  Department:

### UPDATE Doctor in Doctors Page (During-Update)

## HospitalBase

### Update Doctor

Doctor Details

First Name: Doctor First Name Last Name: Doctor Last Name Department: Doctor Department

Update Doctor

Return to All Doctors Page

### UPDATE Doctor in Doctors Page (Post-Update)

## HospitalBase

### Doctor Updated!

ID	First Name	Last Name	Department		
1	Ben	Carson	Neurology	Update	Delete
2	Siddharth	Mukherjee	Oncology	Update	Delete
3	Atul	Gawande	Endocrinology	Update	Delete
4	Oliver	Sacks	Neurology	Update	Delete
5	Hippocrates	of Kos	Internal Medicine	Update	Delete
6	Doctor First Name	Doctor Last Name	Doctor Department	Update	Delete

Search Doctors

Return to Doctors Page

Return to Main Page

### Delete Doctor From Doctors Page

## HospitalBase

### Doctor Deleted!

ID	First Name	Last Name	Department		
1	Ben	Carson	Neurology	Update	Delete
2	Siddharth	Mukherjee	Oncology	Update	Delete
3	Atul	Gawande	Endocrinology	Update	Delete
4	Oliver	Sacks	Neurology	Update	Delete
5	Hippocrates	of Kos	Internal Medicine	Update	Delete

Search Doctors

Return to Doctors Page

Return to Main Page

### ADD NEW Patient to Patients Page (Pre-Add)

## HospitalBase

**Add New Patient**

Patient Details

First Name:  Last Name:  Primary Doctor:

### ADD NEW Patient to Patients Page (Post-Add)

## HospitalBase

**Patient Added!**

**Add New Patient**

Patient Details

First Name:  Last Name:  Primary Doctor:

### BROWSE Patients Page

## HospitalBase

ID	First Name	Last Name	Primary Doctor		
1	Alison	Bechdel	Oliver Sacks	<input type="button" value="Update"/>	<input type="button" value="Delete"/>
2	Tarell	McCraney	Siddharth Mukherjee	<input type="button" value="Update"/>	<input type="button" value="Delete"/>
3	Junot	Diaz	Hippocrates of Kos	<input type="button" value="Update"/>	<input type="button" value="Delete"/>
4	Shwetak	Patel	Atul Gawande	<input type="button" value="Update"/>	<input type="button" value="Delete"/>
5	Esther	Dufflo	Ben Carson	<input type="button" value="Update"/>	<input type="button" value="Delete"/>
6	Test Patient First Name	Test Patient Last Name	Hippocrates of Kos	<input type="button" value="Update"/>	<input type="button" value="Delete"/>

SEARCH Patient in Patients Page (Pre-Search)

# HospitalBase

## Search Patient

Patient Details

First Name/Last Name:

SEARCH Patient in Patients Page (Post-Search)

# HospitalBase

## 1 Patients Found!

ID	First Name	Last Name	Primary Doctor	
6	Test Patient First Name	Test Patient Last Name	of Kos	<input type="button" value="Update"/> <input type="button" value="Delete"/>

UPDATE Patient in Patients Page (Pre-Update)

# HospitalBase

## Update Patient

Patient Details

First Name:  Last Name:  Primary Doctor:

### UPDATE Patient in Patients Page (During-Update)

## HospitalBase

### Update Patient

Patient Details

First Name:  Last Name:  Primary Doctor:

### UPDATE Patient in Patients Page (Post-Update)

## HospitalBase

### Patient Updated!

ID	First Name	Last Name	Primary Doctor		
1	Alison	Bechdel	Oliver Sacks	<input type="button" value="Update"/>	<input type="button" value="Delete"/>
2	Tarell	McCraney	Siddharth Mukherjee	<input type="button" value="Update"/>	<input type="button" value="Delete"/>
3	Junot	Diaz	Hippocrates of Kos	<input type="button" value="Update"/>	<input type="button" value="Delete"/>
4	Shwetak	Patel	Atul Gawande	<input type="button" value="Update"/>	<input type="button" value="Delete"/>
5	Esther	Duffo	Ben Carson	<input type="button" value="Update"/>	<input type="button" value="Delete"/>
6	Patient First Name	Patient Last Name	Oliver Sacks	<input type="button" value="Update"/>	<input type="button" value="Delete"/>

### Delete Patient From Patients Page

## HospitalBase

### Patient Deleted!

ID	First Name	Last Name	Primary Doctor		
1	Alison	Bechdel	Oliver Sacks	<input type="button" value="Update"/>	<input type="button" value="Delete"/>
2	Tarell	McCraney	Siddharth Mukherjee	<input type="button" value="Update"/>	<input type="button" value="Delete"/>
3	Junot	Diaz	Hippocrates of Kos	<input type="button" value="Update"/>	<input type="button" value="Delete"/>
4	Shwetak	Patel	Atul Gawande	<input type="button" value="Update"/>	<input type="button" value="Delete"/>
5	Esther	Duffo	Ben Carson	<input type="button" value="Update"/>	<input type="button" value="Delete"/>

### ADD NEW Staff to Staff Page (Pre-Add)

# HospitalBase

## Add New Staff

Staff Details

First Name:  Last Name:  Type:

### ADD NEW Staff to Staff Page (Post-Add)

# HospitalBase

## Staff Added!

## Add New Staff

Staff Details

First Name:  Last Name:  Type:

### BROWSE Staff Page

# HospitalBase

ID	First Name	Last Name	Type		
1	Louis	Pasteur	Pathology	<input type="button" value="Update"/>	<input type="button" value="Delete"/>
2	Florence	Nightingale	nursing	<input type="button" value="Update"/>	<input type="button" value="Delete"/>
3	Raymond	Damadian	radiology	<input type="button" value="Update"/>	<input type="button" value="Delete"/>
4	Maria	Dauerer	pharmacy	<input type="button" value="Update"/>	<input type="button" value="Delete"/>
5	Tadeusz	Pankiewicz	pharmacy	<input type="button" value="Update"/>	<input type="button" value="Delete"/>
6	Test	Staff	testType	<input type="button" value="Update"/>	<input type="button" value="Delete"/>
7	Test Staff First Name	Test Staff Last Name	Volunteer	<input type="button" value="Update"/>	<input type="button" value="Delete"/>



SEARCH Staff in Staff Page (Pre-Search)

# HospitalBase

## Search Staff

Staff Details

First Name/Last Name:

SEARCH Staff in Staff Page (Post-Search)

# HospitalBase

## 1 Staff Found!

ID	First Name	Last Name	Type	
7	Test Staff First Name	Test Staff Last Name	Volunteer	<input type="button" value="Update"/> <input type="button" value="Delete"/>

UPDATE Staff in Staff Page (Pre-Update)

# HospitalBase

## Update Test Staff First Name Test Staff Last Name:

First name:

Last name:

Staff Type:



### UPDATE Staff in Staff Page (During-Update)

## HospitalBase

**Update Test Staff First Name Test Staff Last Name:**

First name:

Last name:

Staff Type:

### UPDATE Staff in Staff Page (Post-Update)

## HospitalBase

**Updated! Staff ID #7**

ID	First Name	Last Name	Type		
1	Louis	Pasteur	Pathology	<input type="button" value="Update"/>	<input type="button" value="Delete"/>
2	Florence	Nightingale	nursing	<input type="button" value="Update"/>	<input type="button" value="Delete"/>
3	Raymond	Damadian	radiology	<input type="button" value="Update"/>	<input type="button" value="Delete"/>
4	Maria	Dauerer	pharmacy	<input type="button" value="Update"/>	<input type="button" value="Delete"/>
5	Tadeusz	Pankiewicz	pharmacy	<input type="button" value="Update"/>	<input type="button" value="Delete"/>
6	Test	Staff	testType	<input type="button" value="Update"/>	<input type="button" value="Delete"/>
7	Staff First Name	Staff Last Name	Welcome Team	<input type="button" value="Update"/>	<input type="button" value="Delete"/>

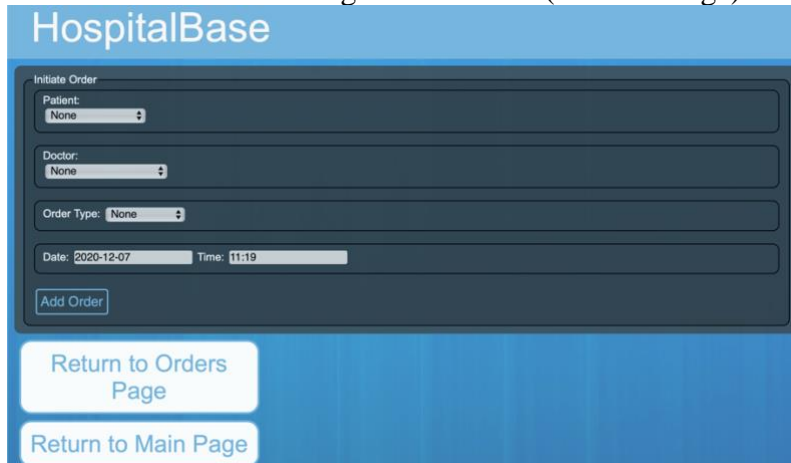
### Delete Staff From Staff Page

## HospitalBase

**Deleted! Staff ID #7**

ID	First Name	Last Name	Type		
1	Louis	Pasteur	Pathology	<input type="button" value="Update"/>	<input type="button" value="Delete"/>
2	Florence	Nightingale	nursing	<input type="button" value="Update"/>	<input type="button" value="Delete"/>
3	Raymond	Damadian	radiology	<input type="button" value="Update"/>	<input type="button" value="Delete"/>
4	Maria	Dauerer	pharmacy	<input type="button" value="Update"/>	<input type="button" value="Delete"/>
5	Tadeusz	Pankiewicz	pharmacy	<input type="button" value="Update"/>	<input type="button" value="Delete"/>
6	Test	Staff	testType	<input type="button" value="Update"/>	<input type="button" value="Delete"/>

### ADD NEW Order Page from Orders (Unfilled Page)



HospitalBase

Initiate Order

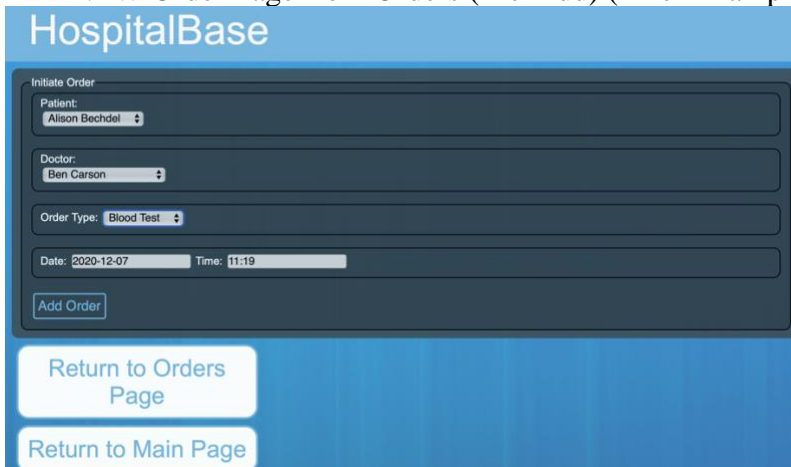
Patient:

Doctor:

Order Type:

Date:  Time:

### ADD NEW Order Page from Orders (Pre-Add) (Error Example)



HospitalBase

Initiate Order

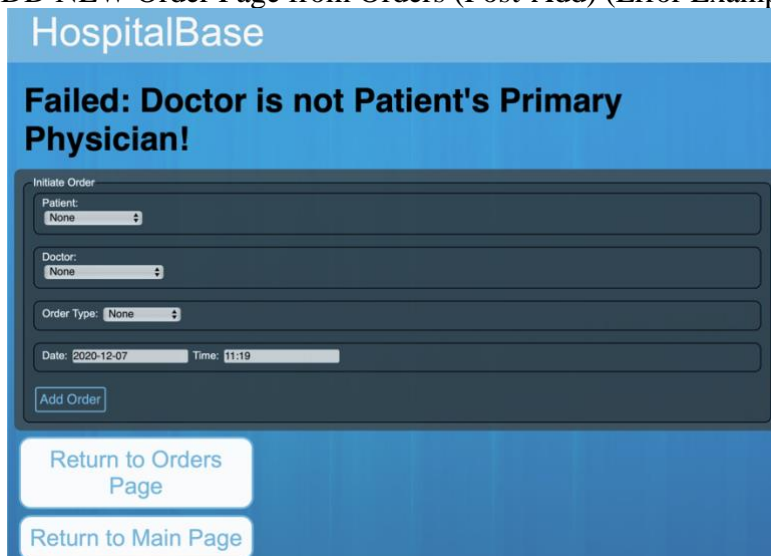
Patient:

Doctor:

Order Type:

Date:  Time:

### ADD NEW Order Page from Orders (Post-Add) (Error Example)



HospitalBase

**Failed: Doctor is not Patient's Primary Physician!**

Initiate Order

Patient:

Doctor:

Order Type:

Date:  Time:

ADD NEW Order Page from Orders (Pre-Add) (Success Example)

# HospitalBase

Initiate Order

Patient: Junot Diaz

Doctor: Hippocrates of Kos

Order Type: X-Ray

Date: 2020-12-07 Time: 11:19

Add Order

Return to Orders Page

Return to Main Page

ADD NEW Order Page from Orders (Post-Add) (Success Example)

# HospitalBase

## Success: Order Added!

Initiate Order

Patient: None

Doctor: None

Order Type: None

Date: 2020-12-07 Time: 11:20

Add Order

Return to Orders Page

Return to Main Page

## BROWSE all Orders Page from Orders

HospitalBase								
Order ID	Date	Time	Order Type	Patient	Doctor	Staff		
1	2020-11-12	8:30:00	prescription	Alison Bechdel	Oliver Sacks	Tadeusz Pankiewicz	<a href="#">Update</a>	<a href="#">Delete</a>
2	2020-11-12	8:30:00	blood tests	Tarell McCraney	Siddharth Mukherjee	Louis Pasteur	<a href="#">Update</a>	<a href="#">Delete</a>
3	2020-11-12	8:30:00	prescription	Junot Diaz	Hippocrates of Kos	Tadeusz Pankiewicz	<a href="#">Update</a>	<a href="#">Delete</a>
4	2020-11-12	8:30:00	x-ray	Shwetak Patel	Atul Gawande	Raymond Damadian	<a href="#">Update</a>	<a href="#">Delete</a>
5	2020-11-12	8:30:00	vitals	Esther Duflo	Ben Carson	Florence Nightingale	<a href="#">Update</a>	<a href="#">Delete</a>
6	2020-12-06	11:54:00	X-Ray	Alison Bechdel	Oliver Sacks	Louis Pasteur	<a href="#">Update</a>	<a href="#">Delete</a>
8	2020-12-06	14:08:00	X-Ray	Alison Bechdel	Oliver Sacks	Raymond Damadian	<a href="#">Update</a>	<a href="#">Delete</a>
10	2020-12-07	11:16:00	Prescription	Alison Bechdel	Oliver Sacks	None	<a href="#">Update</a>	<a href="#">Delete</a>
11	2020-12-07	11:19:00	X-Ray	Junot Diaz	Hippocrates of Kos	None	<a href="#">Update</a>	<a href="#">Delete</a>

[Search Orders](#)

[Return to Orders Page](#)

[Return to Main Page](#)

## SEARCH an Order Page from Orders (Pre-Search)

HospitalBase	
<b>Search An Order</b>	
Search By Patient's First Name/Last Name	
First Name/Last Name: <input type="text" value="Junot"/>	
<input type="button" value="Search Orders"/>	
<a href="#">Return to Orders Page</a>	
<a href="#">Return to Main Page</a>	

## SEARCH an Order Page from Orders (Post-Search)

HospitalBase								
2 Orders Found!								
Order ID	Date	Time	Order Type	Patient	Doctor	Staff		
3	2020-11-12	8:30:00	prescription	Junot Diaz	Hippocrates of Kos	Tadeusz Pankiewicz	<a href="#">Update</a>	<a href="#">Delete</a>
11	2020-12-07	11:19:00	X-Ray	Junot Diaz	Hippocrates of Kos	None	<a href="#">Update</a>	<a href="#">Delete</a>

[Search Orders](#)

[Return to Orders Page](#)

[Return to Main Page](#)

## UPDATE an Order Page from Orders (Pre-Update)

### HospitalBase

#### Update Staff For Order #11:

Patient:   
 Doctor:   
 Order Type:   
 Staff Assigned:

Update Assigned Staff

Return to Orders Page

Return to Main Page

## UPDATE an Order Page from Orders (During-Update)

### HospitalBase

#### Update Staff For Order #11:

Patient:   
 Doctor:   
 Order Type:   
 Staff Assigned:

Update Assigned Staff

Return to Orders Page

Return to Main Page

## UPDATE an Order Page from Orders (Post-Update)

### HospitalBase

#### Updated! Order ID #11

Order ID	Date	Time	Order Type	Patient	Doctor	Staff		
1	2020-11-12	8:30:00	prescription	Alison Bechdel	Oliver Sacks	Tadeusz Pankiewicz	Update	Delete
2	2020-11-12	8:30:00	blood tests	Tarell McCraney	Siddharth Mukherjee	Louis Pasteur	Update	Delete
3	2020-11-12	8:30:00	prescription	Junot Diaz	Hippocrates of Kos	Tadeusz Pankiewicz	Update	Delete
4	2020-11-12	8:30:00	x-ray	Shwetak Patel	Atul Gawande	Raymond Damadian	Update	Delete
5	2020-11-12	8:30:00	vitals	Esther Duflo	Ben Carson	Florence Nightingale	Update	Delete
6	2020-12-06	11:54:00	X-Ray	Alison Bechdel	Oliver Sacks	Louis Pasteur	Update	Delete
8	2020-12-06	14:08:00	X-Ray	Alison Bechdel	Oliver Sacks	Raymond Damadian	Update	Delete
10	2020-12-07	11:16:00	Prescription	Alison Bechdel	Oliver Sacks	None	Update	Delete
11	2020-12-07	11:19:00	X-Ray	Junot Diaz	Hippocrates of Kos	Florence Nightingale	Update	Delete

Search Orders

Return to Orders Page

DELETE an Order Page from Orders

# HospitalBase

## Deleted! Order ID #11

Order ID	Date	Time	Order Type	Patient	Doctor	Staff		
1	2020-11-12	8:30:00	prescription	Alison Bechdel	Oliver Sacks	Tadeusz Pankiewicz	<a href="#">Update</a>	<a href="#">Delete</a>
2	2020-11-12	8:30:00	blood tests	Tarell McCraney	Siddharth Mukherjee	Louis Pasteur	<a href="#">Update</a>	<a href="#">Delete</a>
3	2020-11-12	8:30:00	prescription	Junot Diaz	Hippocrates of Kos	Tadeusz Pankiewicz	<a href="#">Update</a>	<a href="#">Delete</a>
4	2020-11-12	8:30:00	x-ray	Shwetak Patel	Atul Gawande	Raymond Damadian	<a href="#">Update</a>	<a href="#">Delete</a>
5	2020-11-12	8:30:00	vitals	Esther Dufo	Ben Carson	Florence Nightingale	<a href="#">Update</a>	<a href="#">Delete</a>
6	2020-12-06	11:54:00	X-Ray	Alison Bechdel	Oliver Sacks	Louis Pasteur	<a href="#">Update</a>	<a href="#">Delete</a>
8	2020-12-06	14:08:00	X-Ray	Alison Bechdel	Oliver Sacks	Raymond Damadian	<a href="#">Update</a>	<a href="#">Delete</a>
10	2020-12-07	11:16:00	Prescription	Alison Bechdel	Oliver Sacks	None	<a href="#">Update</a>	<a href="#">Delete</a>

[Search Orders](#)

[Return to Orders  
Page](#)

[Return to Main Page](#)

ADD NEW Result to Results Page (Pre-Add) (Error Example)

HospitalBase

**Add New Result**

Result Details

Patient's Last Name - OrderType:  
Bechdel - prescription

Accessed by Doctor: ☐ Yes ☒ No

Status (Fulfilled or Pending:Reason?): Pending: Patient Visit

Date: 2020-12-07

Add Result

Return to Main Page

Return to Results Page

ADD NEW Result to Results Page (Post-Add) (Error Example)

HospitalBase

**Failed: Result for Order Already Exits! Please Update Result!**

**Add New Result**

Result Details

Patient's Last Name - OrderType:  
Bechdel - prescription

Accessed by Doctor: ☐ Yes ☒ No

Status (Fulfilled or Pending:Reason?):

Date: 2020-12-07

Add Result

Return to Main Page

Return to Results Page

ADD NEW Result to Results Page (Pre-Add) (Success Example)

HospitalBase

**Add New Result**

Result Details

Patient's Last Name - OrderType:  
Bechdel - X-Ray

Accessed by Doctor: ☐ Yes ☒ No

Status (Fulfilled or Pending:Reason?): Pending: Patient Visit

Date: 2020-12-07

Add Result

Return to Main Page

Return to Results Page



### ADD NEW Result to Results Page (Post-Add) (Success Example)

## HospitalBase

### Result Added!

#### Add New Result

Result Details

Patient's Last Name - OrderType:  
Bechdel - prescription

Accessed by Doctor: ☐ Yes ☒ No

Status (Fulfilled or Pending/Reason?):

Date: 2020-12-07

Add Result

Return to Main Page

Return to Results Page

### BROWSE all Results from Results Page

## HospitalBase

Result ID	Result Status	Patient	Order Type	Date	Accessed By Physician?		
1	fulfilled	Bechdel	prescription	2020-12-07	YES	Update	Delete
7	Pending: Patient Visit	Bechdel	X-Ray	2020-12-07	NO	Update	Delete
2	pending: patient visit	McCrane	blood tests	2020-11-15	NO	Update	Delete
3	pending: order received	Diaz	prescription	2020-11-15	NO	Update	Delete
4	fulfilled	Patel	x-ray	2020-11-15	NO	Update	Delete
5	fulfilled	Duffo	vitals	2020-11-15	NO	Update	Delete

Find Results

Return to Results Page

Return to Main Page

### FILTER from Results (Pre-Search)

## HospitalBase

### Filter Results

Filter by

Status: ☒ Fulfilled ☒ Pending: Reason

Accessed by Doctor: ☐ Yes ☒ No

filter

Return to Results Page

Return to Main Page



### FILTER from Results Page (Post-Search)

# HospitalBase

## 3 Results Found!

Result ID	Result Status	Patient	Order Type	Date	Accessed By Physician?		
7	Pending: Patient Visit	Bechdel	X-Ray	2020-12-07	NO	<a href="#">Update</a>	<a href="#">Delete</a>
2	pending: patient visit	McCraney	blood tests	2020-11-15	NO	<a href="#">Update</a>	<a href="#">Delete</a>
3	pending: order received	Diaz	prescription	2020-11-15	NO	<a href="#">Update</a>	<a href="#">Delete</a>

[Find Results](#)

[Return to Results Page](#)

[Return to Main Page](#)

### UPDATE a Result from Results Page (Pre-Update)

# HospitalBase

## Update Result# 7:

Patient:

Doctor:

Order Type:

Status (Fulfilled or Pending:Reason?):

Accessed by Doctor: ☒ Yes ☐ No

Date:

[Update Result](#)

[Return to Result Page](#)

[Return to Main Page](#)

### UPDATE a Result from Results Page (During-Update)

# HospitalBase

## Update Result# 7:

Patient:

Doctor:

Order Type:

Status (Fulfilled or Pending:Reason?):

Accessed by Doctor: ☒ Yes ☐ No

Date:

[Update Result](#)

[Return to Result Page](#)

[Return to Main Page](#)

UPDATE a Result from Results Page (Post-Update)

# HospitalBase

Updated! Result ID #7

Result ID	Result Status	Patient	Order Type	Date	Accessed By Physician?		
1	fulfilled	Bechdel	prescription	2020-12-07	YES	Update	Delete
7	Fulfilled: Patient Happy	Bechdel	X-Ray	2020-12-07	YES	Update	Delete
2	pending: patient visit	McCraney	blood tests	2020-11-15	NO	Update	Delete
3	pending: order received	Diaz	prescription	2020-11-15	NO	Update	Delete
4	fulfilled	Patel	x-ray	2020-11-15	NO	Update	Delete
5	fulfilled	Duffo	vitals	2020-11-15	NO	Update	Delete

Find Results

Return to Results Page

Return to Main Page

DELETE a Result from Results Page

# HospitalBase

Deleted! Result ID #7

Result ID	Result Status	Patient	Order Type	Date	Accessed By Physician?		
1	fulfilled	Bechdel	prescription	2020-12-07	YES	Update	Delete
2	pending: patient visit	McCraney	blood tests	2020-11-15	NO	Update	Delete
3	pending: order received	Diaz	prescription	2020-11-15	NO	Update	Delete
4	fulfilled	Patel	x-ray	2020-11-15	NO	Update	Delete
5	fulfilled	Duffo	vitals	2020-11-15	NO	Update	Delete

Find Results

Return to Results Page

Return to Main Page

ADD NEW Staff-Patient Relationship to Staff\_Patients Page

# HospitalBase

## Add New Staff-Patient Relationship

Relationship Details

Staff:  Patient:

ADD NEW Staff-Patient Relationship to Staff\_Patients Through Update Staff In UPDATE Order Page

# HospitalBase

## Update Staff For Order #5:

Patient:

Doctor:

Order Type:

Staff Assigned:

## DISPLAY All Staff\_Patients Relationship Page

HospitalBase					
Staff ID	Staff Name	Patient ID	Patient Name		
1	Louis Pasteur	1	Alison Bechdel	<a href="#">Update</a>	<a href="#">Delete</a>
3	Raymond Damadian	1	Alison Bechdel	<a href="#">Update</a>	<a href="#">Delete</a>
5	Tadeusz Pankiewicz	1	Alison Bechdel	<a href="#">Update</a>	<a href="#">Delete</a>
1	Louis Pasteur	2	Tarell McCraney	<a href="#">Update</a>	<a href="#">Delete</a>
2	Florence Nightingale	2	Tarell McCraney	<a href="#">Update</a>	<a href="#">Delete</a>
2	Florence Nightingale	3	Junot Diaz	<a href="#">Update</a>	<a href="#">Delete</a>
5	Tadeusz Pankiewicz	3	Junot Diaz	<a href="#">Update</a>	<a href="#">Delete</a>
3	Raymond Damadian	4	Shwetak Patel	<a href="#">Update</a>	<a href="#">Delete</a>
2	Florence Nightingale	5	Esther Duflo	<a href="#">Update</a>	<a href="#">Delete</a>

[Return to Staff-Patient Page](#)

[Return to Main Page](#)

## UPDATE Staff-Patient Relationship in Staff\_Patients Page (Pre-Update)

### HospitalBase

#### Update Relationship

Relationship Details

Staff:  Patient:

[Update Relationship](#)

[Return to All Relationships Page](#)

## UPDATE Staff-Patient Relationship in Staff\_Patients Page (During-Update)

### HospitalBase

#### Update Relationship

Relationship Details

Staff:  Patient:

[Update Relationship](#)

[Return to All Relationships Page](#)

## UPDATE Staff-Patient Relationship in Staff\_Patients Page (Post-Update)

# HospitalBase

## Relationship Updated!

Staff ID	Staff Name	Patient ID	Patient Name		
3	Raymond Damadian	1	Alison Bechdel	<a href="#">Update</a>	<a href="#">Delete</a>
1	Louis Pasteur	2	Tarell McCraney	<a href="#">Update</a>	<a href="#">Delete</a>
2	Florence Nightingale	2	Tarell McCraney	<a href="#">Update</a>	<a href="#">Delete</a>
2	Florence Nightingale	3	Junot Diaz	<a href="#">Update</a>	<a href="#">Delete</a>
5	Tadeusz Pankiewicz	3	Junot Diaz	<a href="#">Update</a>	<a href="#">Delete</a>
3	Raymond Damadian	4	Shwetak Patel	<a href="#">Update</a>	<a href="#">Delete</a>
5	Tadeusz Pankiewicz	4	Shwetak Patel	<a href="#">Update</a>	<a href="#">Delete</a>
2	Florence Nightingale	5	Esther Duflo	<a href="#">Update</a>	<a href="#">Delete</a>

[Return to Staff-Patient Page](#)

[Return to Main Page](#)

## DELETE Staff-Patient Relationship in Staff\_Patients Page (Pre-Delete)

# HospitalBase

## Relationship Updated!

Staff ID	Staff Name	Patient ID	Patient Name		
3	Raymond Damadian	1	Alison Bechdel	<a href="#">Update</a>	<a href="#">Delete</a>
1	Louis Pasteur	2	Tarell McCraney	<a href="#">Update</a>	<a href="#">Delete</a>
2	Florence Nightingale	2	Tarell McCraney	<a href="#">Update</a>	<a href="#">Delete</a>
2	Florence Nightingale	3	Junot Diaz	<a href="#">Update</a>	<a href="#">Delete</a>
5	Tadeusz Pankiewicz	3	Junot Diaz	<a href="#">Update</a>	<a href="#">Delete</a>
3	Raymond Damadian	4	Shwetak Patel	<a href="#">Update</a>	<a href="#">Delete</a>
5	Tadeusz Pankiewicz	4	Shwetak Patel	<a href="#">Update</a>	<a href="#">Delete</a>
2	Florence Nightingale	5	Esther Duflo	<a href="#">Update</a>	<a href="#">Delete</a>

[Return to Staff-Patient Page](#)

[Return to Main Page](#)

DELTE Staff-Patient Relationship in Staff\_Patients Page (Post-Delete)

# HospitalBase

## Relationship Deleted!

Staff ID	Staff Name	Patient ID	Patient Name		
3	Raymond Damadian	1	Alison Bechdel	<a href="#">Update</a>	<a href="#">Delete</a>
1	Louis Pasteur	2	Tarell McCraney	<a href="#">Update</a>	<a href="#">Delete</a>
2	Florence Nightingale	2	Tarell McCraney	<a href="#">Update</a>	<a href="#">Delete</a>
2	Florence Nightingale	3	Junot Diaz	<a href="#">Update</a>	<a href="#">Delete</a>
5	Tadeusz Pankiewicz	3	Junot Diaz	<a href="#">Update</a>	<a href="#">Delete</a>
3	Raymond Damadian	4	Shwetak Patel	<a href="#">Update</a>	<a href="#">Delete</a>
2	Florence Nightingale	5	Esther Dufflo	<a href="#">Update</a>	<a href="#">Delete</a>

[Return to Staff-Patient Page](#)

[Return to Main Page](#)