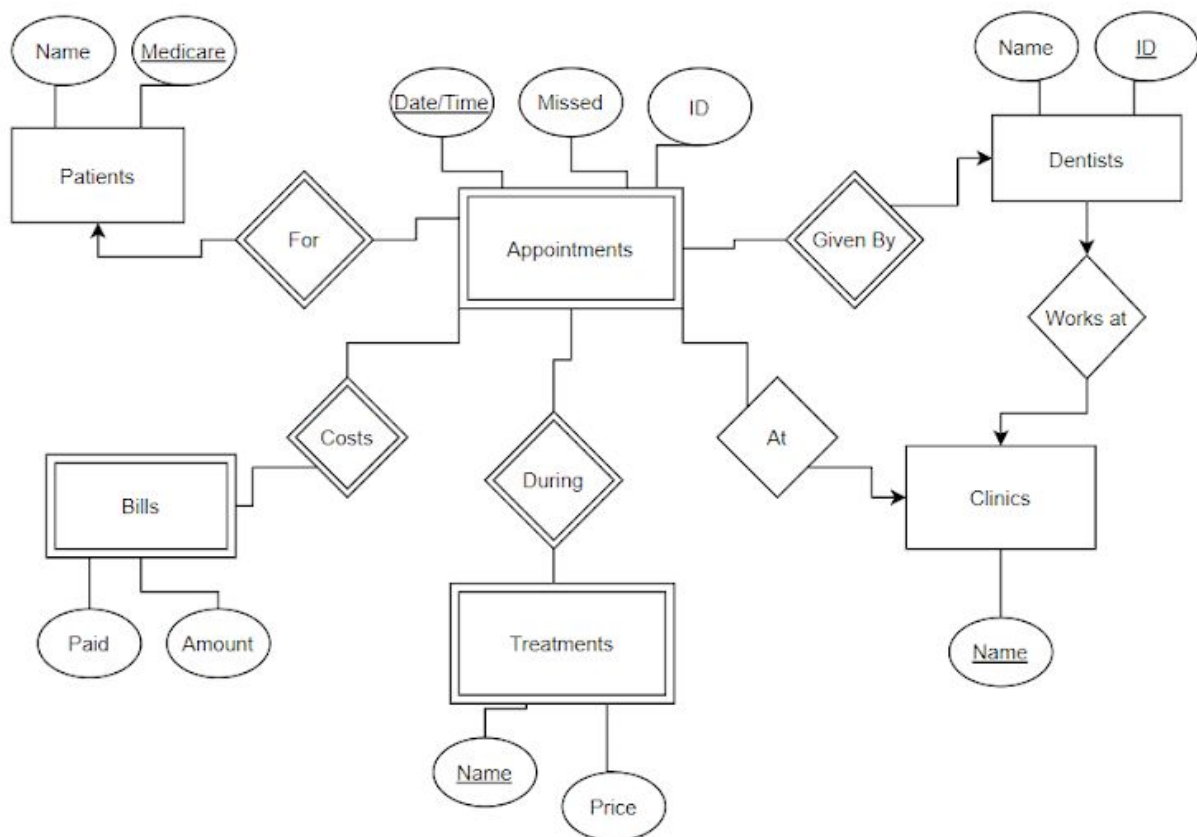


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E/R Diagram



Database Schemas

Patients(medicare, name)

Dentists(id, name, clinic_name*)

Clinics(name)

Appointments(patient_medicare*, dentists_id*, date_time, missed, a_id)

Treatments(a_id*, name, price)

Bills(a_id*, paid, amount)

Functional Dependencies

Patients = {medicare → name}

Dentists = {id → name, clinic_name}

Appointments = {patient_medicare, dentists_id, date_time → missed, a_id}

Treatments = {a_id, name → price}

Bills = {a_id → paid, amount}

SQL Declaration of the Relations

```
CREATE TABLE Patients (  
    medicare INTEGER,  
    name VARCHAR(255),  
    PRIMARY KEY (medicare)  
);
```

```
CREATE TABLE Dentists (  
    id INTEGER,  
    name VARCHAR(255),  
    clinic_name VARCHAR(255),  
    PRIMARY KEY (id),  
    FOREIGN KEY (clinic_name) REFERENCES Clinics(name)  
);
```

note: clinic_name was added as a field since it's hard to know where the dentist works otherwise, it's also less repetitive than adding it in the appointments.

```
CREATE TABLE Clinics (  
    name VARCHAR(255),  
    PRIMARY KEY (name)  
);
```

```
CREATE TABLE Appointments (  
    patient_medicare INTEGER,  
    dentist_id INTEGER,  
    date_time DATETIME,  
    a_id INTEGER AUTO_INCREMENT,  
    missed BOOLEAN,  
    PRIMARY KEY (patient_medicare, dentist_id, date_time),  
    FOREIGN KEY (patient_medicare) REFERENCES Patients(medicare),  
    FOREIGN KEY (dentist_id) REFERENCES Dentists(id),  
    UNIQUE (a_id)  
);
```

note: a_id was made unique so it can be used as the primary key in treatments and bills.

```
CREATE TABLE Treatments (  
    a_id INTEGER,  
    name VARCHAR(255),  
    price INTEGER,  
    PRIMARY KEY (a_id, name),  
    FOREIGN KEY (a_id) REFERENCES Appointments(a_id)  
);
```

```
CREATE TABLE Bills (  
    a_id INTEGER,  
    paid BOOLEAN,  
    amount DECIMAL,  
    PRIMARY KEY (a_id),  
    FOREIGN KEY (a_id) REFERENCES Appointments(a_id)  
);
```

Relation Instances

Patients:

medicare	name
111111111	Sameer
111111112	Faisal
111111113	Veronika
111111114	Elijah
111111115	Tyrese
111111116	Aaisha
111111117	Levi
111111118	Vernon
111111119	Stevie

Dentists:

id	name	clinic_name
200000001	Mariah	Alpha Seaforth
200000002	Ayda	Alpha Seaforth
200000003	Ishaq	Alpha Seaforth
200000004	Joshua	Alpha Seaforth
300000001	Krzysztof	Denticare
300000002	Mohamad	Denticare
300000003	Riccardo	Denticare
300000004	Regina	Denticare
400000001	Ruari	Comfort Care
400000002	Tommy	Comfort Care
400000003	Ellesse	Comfort Care
400000004	Haaris	Comfort Care
500000001	Sheikh	Oliveira
500000002	Tehya	Oliveira
500000003	Raya	Oliveira
500000004	Jae	Oliveira

Clinics:

name
Alpha Seaforth
Comfort Care
Denticare
Oliveira

Appointments:

patient_medicare	dentist_id	date_time	a_id	missed
1111111111	200000001	2018-03-03 13:00:00	1	0
1111111111	200000001	2018-03-05 13:00:00	2	1
1111111111	200000001	2018-03-07 13:00:00	4	0
1111111111	200000003	2018-03-08 15:00:00	5	0
1111111112	200000001	2018-03-09 14:00:00	6	1
1111111113	300000001	2018-03-07 13:00:00	7	1
1111111113	500000003	2018-07-04 17:00:00	14	0
1111111114	200000001	2018-03-06 14:00:00	3	0
1111111114	300000002	2018-03-07 14:00:00	8	1
1111111115	300000003	2018-03-07 13:00:00	9	0
1111111116	300000004	2018-03-07 15:00:00	10	1
1111111117	400000003	2018-06-02 14:00:00	15	0
1111111117	500000004	2018-05-02 13:00:00	13	0
1111111118	400000001	2018-04-07 16:00:00	11	0
1111111119	500000001	2018-05-02 13:00:00	12	1

Treatments:

a_id	name	price
1	Braces	6000
1	Bridges and Implants	600
1	Cleaning	140
1	Consultation	144
1	Extractions	160
1	Teeth Whitening	650
2	Braces	6000
2	Teeth Whitening	650
3	Braces	6000
4	Bridges and Implants	600
4	Cleaning	140
4	Extractions	160
5	Braces	6000
6	Consultation	144
7	Extractions	160
7	Teeth Whitening	650
8	Bridges and Implants	600
9	Cleaning	140
10	Consultation	144
11	Braces	6000
12	Extractions	160
13	Teeth Whitening	650
14	Cleaning	140
15	Bridges and Implants	600
15	Cleaning	140

Bills:

a_id	paid	amount
1	1	7694
2	0	6650
3	1	6000
4	1	900
5	0	6000
6	1	144
7	0	810
8	0	600
9	1	140
10	0	144
11	1	6000
12	1	160
13	1	650
14	0	140
15	1	740

Consultation \$144
Braces \$6000
Bridges and Implants \$600
Extractions \$160
Teeth Whitening \$650
Cleaning \$140

SQL Queries

**** Only a maximum of 5 tuples are shown for each query even though there may be more results**

**** Only SELECT query results are shown to avoid unnecessary extensive modifications to the DB**

SELECT

a. Get details of all dentists in all the clinics.

SELECT * FROM Dentists;

```
mysql> SELECT * FROM Dentists;
+-----+-----+-----+
| id      | name    | clinic_name |
+-----+-----+-----+
| 200000001 | Mariah  | Alpha Seaforth |
| 200000002 | Ayda    | Alpha Seaforth |
| 200000003 | Ishaq   | Alpha Seaforth |
| 200000004 | Joshua  | Alpha Seaforth |
| 300000001 | Krzysztof | Denticare    |
+-----+-----+-----+
```

b. Get details of all appointments for a given dentist for a specific week.

SELECT patient_medicare, name, date_time, a_id
FROM Appointments, Dentists
WHERE name= "name" AND dentist_id = id AND date_time >= "startDate" AND
date_time <= "endDate";


```
mysql> SELECT patient_medicare, name, date_time, a_id FROM Appointments, Dentists WHERE
name="Mariah" AND dentist_id=id AND date_time >= "2018-03-05" AND date_time <= "2018-03-
12";
```

patient_medicare	name	date_time	a_id
1111111111	Mariah	2018-03-05 13:00:00	2
1111111114	Mariah	2018-03-06 14:00:00	3
1111111111	Mariah	2018-03-07 13:00:00	4
1111111112	Mariah	2018-03-09 14:00:00	6

c. Get details of all appointments at a given clinic on a specific date.

```
SELECT patient_medicare, dentist_id, date_time, a_id, missed, Dentists.name
FROM Appointments, Dentists
WHERE dentist_id = Dentists.ID AND clinic_name = "clinicName" AND date_time
LIKE "date";
```

Ex:

```
SELECT patient_medicare, dentist_id, date_time, a_id, missed, Dentists.name,
clinic_name
FROM Appointments, Dentists
WHERE dentist_id = Dentists.ID and date_time LIKE "2018-03-07%" and clinic_name =
"Denticare";
```

```
mysql> SELECT patient_medicare, dentist_id, date_time, a_id, missed, Dentists.name, clinic_name FRO
M Appointments, Dentists WHERE dentist_id = Dentists.ID and date_time LIKE "2018-03-07%" and clinic
_name = "Denticare";
```

patient_medicare	dentist_id	date_time	a_id	missed	name	clinic_name
1111111113	300000001	2018-03-07 13:00:00	7	1	Krzysztof	Denticare
1111111114	300000002	2018-03-07 14:00:00	8	1	Mohamad	Denticare
1111111115	300000003	2018-03-07 13:00:00	9	0	Riccardo	Denticare
1111111116	300000004	2018-03-07 15:00:00	10	1	Regina	Denticare

d. Get details of all appointments of a given patient.

```
SELECT patient_medicare, name, date_time, a_id, missed
FROM Appointments, Patients
WHERE name = "name" AND patient_medicare = medicare;
```

```
mysql> SELECT patient_medicare, name, date_time, a_id, missed FROM Appointments, Patients WHERE
name="Sameer" AND patient_medicare=medicare;
```

patient_medicare	name	date_time	a_id	missed
1111111111	Sameer	2018-03-03 13:00:00	1	0
1111111111	Sameer	2018-03-05 13:00:00	2	1
1111111111	Sameer	2018-03-07 13:00:00	4	0
1111111111	Sameer	2018-03-08 15:00:00	5	0

e. Get the number of missed appointments for each patient (only for patients who have missed at least 1 appointment).

```
SELECT a_id, patient_medicare, dentist_id, date_time, COUNT(missed)
FROM Appointments
WHERE missed = true
GROUP BY patient_medicare;
```

```
mysql> SELECT a_id, patient_medicare, dentist_id, date_time, COUNT(missed)
-> FROM Appointments
-> WHERE missed=true
-> GROUP BY patient_medicare;
```

a_id	patient_medicare	dentist_id	date_time	COUNT(missed)
2	1111111111	200000001	2018-03-05 13:00:00	1
6	1111111112	200000001	2018-03-09 14:00:00	1
7	1111111113	300000001	2018-03-07 13:00:00	1
8	1111111114	300000002	2018-03-07 14:00:00	1
10	1111111116	300000004	2018-03-07 15:00:00	1

f. Get details of all the treatments made during a given appointment.

```
SELECT Appointments.a_id, name, price
FROM Appointments, Treatments
WHERE Treatments.a_id = appointment AND Appointments.a_id = Treatments.a_id;
```

```
mysql> SELECT Appointments.a_id, name, price
-> FROM Appointments, Treatments
-> WHERE Treatments.a_id = 1 AND Appointments.a_id = Treatments.a_id;
```

a_id	name	price
1	Braces	6000
1	Bridges and Implants	600
1	Cleaning	140
1	Consultation	144
1	Extractions	160

g. Get details of all unpaid bills.

```
SELECT Appointments.patient_medicare, name, date_time, amount
FROM Appointments, Bills, Patients
WHERE Appointments.a_id = Bills.a_id AND Appointments.patient_medicare =
Patients.medicare AND Bills.paid = false;
```

```
mysql> SELECT Appointments.patient_medicare, name, date_time, amount
-> FROM Appointments, Bills, Patients
-> WHERE Appointments.a_id = Bills.a_id AND Appointments.patient_medicare = Patients
.medicare AND Bills.paid=false;
+-----+-----+-----+-----+
| patient_medicare | name      | date_time          | amount |
+-----+-----+-----+-----+
| 1111111111 | Sameer   | 2018-03-05 13:00:00 | 6650   |
| 1111111111 | Sameer   | 2018-03-08 15:00:00 | 6000   |
| 1111111113 | Veronika | 2018-03-07 13:00:00 | 810    |
| 1111111114 | Elijah   | 2018-03-07 14:00:00 | 600    |
| 1111111116 | Aaisha   | 2018-03-07 15:00:00 | 144    |
```

INSERT

New appointment

```
INSERT INTO Appointments
VALUES (patient_medicare, dentist_id, date_time, a_id, missed);
```

```
INSERT INTO Treatments
VALUES (a_id, "name", price);
```

```
INSERT INTO Bills
VALUES (a_id, paid, amount);
```

Check if patient exists

```
SELECT medicare
FROM Patients
WHERE medicare = medicare;
```

If patient doesn't exist (returns empty set)

```
INSERT into Patients  
VALUES (medicare, "name");
```

Add treatment to existing appointment (Bill must be updated as well)

```
INSERT INTO Treatments  
VALUES (a_id, "name", price);
```

UPDATE

Appointment missed

```
UPDATE Appointments  
SET missed=true  
WHERE a_id = appointment;
```

Bill paid

```
UPDATE Bills  
SET paid=true  
WHERE a_id = appointment;
```

Replace a treatment in an existing appointment

```
UPDATE Treatments  
SET name = treatment_name, price=price;  
WHERE a_id = appointment AND name=name;
```

Remove a treatment from an existing appointment

```
DELETE FROM Treatments  
WHERE a_id = appointment AND name = name;
```

Update Bill after treatment is modified

```
UPDATE Bills  
SET amount = newAmount  
WHERE a_id = appointment
```

Date

```
UPDATE Appointments
SET date_time = new_date_time;
WHERE a_id = appointment;
```

Dentist

```
UPDATE Appointments
SET dentist_id = new_dentist_id;
WHERE a_id = appointment;
```

Delete existing appointment

```
DELETE FROM Appointments
WHERE a_id = appointment
```

All corresponding bills and treatments must also be deleted

```
DELETE FROM Treatments
WHERE a_id = appointment
```

```
DELETE FROM Bills
WHERE a_id = appointment
```


Implementation Code

dbh.handler.php

```
1  <?php
2      $servername = "bwc353.encs.concordia.ca";
3      $username = "bwc353_4";
4      $password = "airplane";
5      $schema = 'bwc353_4';
6
7      // Create connection
8      $conn = mysqli_connect($servername, $username, $password, $schema); // will generate a bool
9
10     // Check connection - if there is no connection
11     if(!$conn){
12         echo 'Connection error' . mysqli_connect_error();
13     }
14     ?>
```

form.handler.php

```
1  <?php
2
3  if(isset($_POST['signup-submit'])){
4      $fullname = $_POST['fullname'];
5      echo $fullname;
6
7  }
8
9
10  ?>
```

allAppointments.php

```
1 <?php include 'inc/header.php'; ?>
2 <?php include 'inc/nav.php'; ?>
3 <?php include 'handlers/dbh.handler.php'; ?>
4
5 <?php
6 /* ----- GET CLINIC NAMES----- */
7
8 // Create query
9 $queryClinicNames = 'SELECT * FROM Clinics';
10 // Make query & get results
11 $clinicNames = mysqli_query($conn, $queryClinicNames);
12
13 // Fetch the resulting rows as an associative array
14 $clinicNamesResults = mysqli_fetch_all($clinicNames, MYSQLI_ASSOC);
15
16 // Free result from memory
17 mysqli_free_result($clinicNames);
18
19 /* ----- GET DENTIST NAMES----- */
20
21 // Create query
22 $queryDentistsNames = 'SELECT name, clinic_name, id FROM Dentists';
23 // Make query & get results
24 $dentistsNames = mysqli_query($conn, $queryDentistsNames);
25
26 // Fetch the resulting rows as an associative array
27 $dentistsNamesResults = mysqli_fetch_all($dentistsNames, MYSQLI_ASSOC);
28
29 // Free result from memory
30 mysqli_free_result($dentistsNames);
31
32 /* ----- GET DISTINCT TREATMENTS ----- */
33 // Create query
34 $queryDistinctTreat = 'SELECT DISTINCT name, price FROM Treatments';
35 // Make query & get results
36 $distinctTreat = mysqli_query($conn, $queryDistinctTreat);
37
38 // Fetch the resulting rows as an associative array
39 $distinctTreatResults = mysqli_fetch_all($distinctTreat, MYSQLI_ASSOC);
40
41 // foreach($distinctTreatResults as $treat){
42 //     echo $treat['name'];
43 // }
44
45 // Free result from memory
46 mysqli_free_result($distinctTreat);
47
48 /* ----- GET ALL APPOINTMENTS & SOME LABELS EXCEPT TREATMENTS ----- */
49
50 // Create query
51 $queryAllApps = 'SELECT Appointments.a_id, Appointments.missed, Patients.medicare as medicare, Patients.name AS p_name, Dentists.id as d_id, Dentists.
    name AS d_name, Dentists.clinic_name AS c_name, Appointments.date time, Bills.amount AS b_amount, Bills.paid AS b_paid FROM Appointments, Patients,
    Dentists, Bills WHERE Appointments.patient_medicare =Patients.medicare AND Dentists.id =Appointments.dentist_id AND Appointments.a_id=Bills.a_id';
52 // Make query & get results
53 $Appss = mysqli_query($conn, $queryAllApps);
```


allmissed.php

```
1  <?php include 'inc/header.php'; ?>
2  <?php include 'inc/nav.php'; ?>
3  <?php include 'handlers/dbh.handler.php'; ?>
4
5  <?php
6      /* ----- GET ALL MISSED APPOINTMENTS----- */
7
8      // Create query
9      $queryMissedApp = 'SELECT a_id, patient_medicare, dentist_id, date_time, COUNT(*)
10 FROM Appointments
11 WHERE missed="1"
12 GROUP BY patient_medicare
13 ';
14 // Make query & get results
15 $missedApp = mysqli_query($conn, $queryMissedApp);
16
17 // Fetch the resulting rows as an associative array
18 $missedAppResults = mysqli_fetch_all($missedApp, MYSQLI_ASSOC);
19
20 // Free result from memory
21 mysqli_free_result($missedApp);
22 ?>
23
24 <div class="container mt-4">
25     <!-- ROW 1 -->
26     <div class="row">
27         <div class="col-md">
28             <h1>All Missed Appointments</h1>
29         </div>
30     </div>
31     <!-- ROW 2 -->
32     <div class="row">
33         <div class="col-md">
34             <!-- MISSED LIST -->
35             <ul class="list-group">
36                 <!-- MISSED ITEM -->
37                 <?php foreach($missedAppResults as $missApp){ ?>
38                     <li class="list-group-item" style="border: 0;">
39                         <div class="card">
40                             <div class="card-body">
41                                 <!-- name -->
42                                 <h5 class="card-title">Appointment ID: <?php echo htmlspecialchars($missApp['a_id']) ?></h5>
43                                 <!-- clinic name -->
44                                 <h6 class="card-subtitle mb-2 text-muted">Date: <?php echo htmlspecialchars($missApp['date_time']) ?> </h6>
45                             </div>
46                         </div>
47                     </li>
48                 <?php } ?>
49                 <!-- END MISSED ITEM -->
50             </ul>
51             <!--END MISSED LIST -->
52         </div>
53     </div>
54 </div>
55
56 <?php include 'inc/footer.php'; ?>
```

alldentists.php

```
1 <?php include 'inc/header.php'; ?>
2 <?php include 'inc/nav.php'; ?>
3 <?php include 'handlers/dbh.handler.php'; ?>
4
5 <?php
6     /* ----- GET ALL DENTISTS----- */
7
8     // Create query
9     $queryDentists = 'SELECT * FROM Dentists';
10    // Make query & get results
11    $dentists = mysqli_query($conn, $queryDentists);
12
13    // Fetch the resulting rows as an associative array
14    $dentistsResults = mysqli_fetch_all($dentists, MYSQLI_ASSOC);
15
16    // Free result from memory
17    mysqli_free_result($dentists);
18 ?>
19
20 <div class="container mt-4">
21     <!-- ROW 1 -->
22     <div class="row">
23         <div class="col-md">
24             <h1>All Dentists</h1>
25         </div>
26     </div>
27     <!-- ROW 2 -->
28     <div class="row">
29         <div class="col-md">
30             <!-- DENTIST LIST -->
31             <ul class="list-group">
32                 <!-- DENTIST ITEM -->
33                 <?php foreach($dentistsResults as $dentist){ ?>
34                     <li class="list-group-item" style="border: 0;">
35                         <div class="card">
36                             <div class="card-body">
37                                 <!-- name -->
38                                 <h5 class="card-title"><?php echo htmlspecialchars($dentist['name']) ?></h5>
39                                 <!-- clinic name -->
40                                 <h6 class="card-subtitle mb-2 text-muted"><?php echo htmlspecialchars($dentist['clinic_name']) ?></h6>
41                             </div>
42                         </div>
43                     </li>
44                 <?php } ?>
45                 <!-- END DENTIST ITEM -->
46             </ul>
47             <!--END DENTIST LIST -->
48         </div>
49     </div>
50 </div>
51
52
53 <?php include 'inc/footer.php'; ?>
```

alltreatments.php

```
1  <?php include 'inc/header.php'; ?>
2  <?php include 'inc/nav.php'; ?>
3  <?php include 'handlers/dbh.handler.php'; ?>
4
5  <?php
6
7      // Deny the user access to this page, ONLY IF they clicked on submit they will have access
8      if(isset($_POST['search2-submit'])) {
9
10         // Retrieving data from forms with their corresponding input names
11         $appid = $_POST['appid'];
12
13         /* ----- GET ALL TREATMENTS FOR A GIVEN APP ----- */
14
15         // Create query
16         $queryTreatmentsApp = 'SELECT Appointments.a_id, name, price
17 FROM Appointments, Treatments WHERE Treatments.a_id = "'. $appid . '" AND Appointments.a_id = Treatments.a_id';
18 // Make query & get results
19 $treatmentsApp = mysqli_query($conn, $queryTreatmentsApp);
20
21 // Fetch the resulting rows as an associative array
22 $treatmentsAppResults = mysqli_fetch_all($treatmentsApp, MYSQLI_ASSOC);
23
24 // Free result from memory
25 mysqli_free_result($treatmentsApp);
26
27     }
28 ?>
```

allunpaidbills.php

```
1 <?php include 'inc/header.php'; ?>
2 <?php include 'inc/nav.php'; ?>
3 <?php include 'handlers/dbh.handler.php'; ?>
4
5 <?php
6 /* ----- GET ALL UNPAID BILLS----- */
7
8 // Create query
9 $queryUnpaidBills = 'SELECT Appointments.patient_medicare, Appointments.a_id, name, date_time, amount FROM Appointments, Bills, Patients WHERE
    Appointments.a_id = Bills.a_id AND Appointments.patient_medicare = Patients.medicare AND Bills.paid=false';
10 // Make query & get results
11 $unpaidBills = mysqli_query($conn, $queryUnpaidBills);
12
13 // Fetch the resulting rows as an associative array
14 $unpaidBillsResults = mysqli_fetch_all($unpaidBills, MYSQLI_ASSOC);
15
16 // Free result from memory
17 mysqli_free_result($unpaidBills);
18 ?>
19
20 <div class="container mt-4">
21 <!-- ROW 1 -->
22 <div class="row">
23 <div class="col-md">
24 <h1>All Unpaid Bills</h1>
25 </div>
26 </div>
27 <!-- ROW 2 -->
28 <div class="row">
29 <div class="col-md">
30 <!-- UNPAID LIST -->
31 <ul class="list-group">
32 <!-- UNPAID ITEM -->
33 <?php foreach($unpaidBillsResults as $bills){ ?>
34 <li class="list-group-item" style="border: 0;">
35 <div class="card">
36 <div class="card-body">
37 <!-- name -->
38 <h4 class="card-title">Patient Name: <?php echo htmlspecialchars($bills['name']) ?></h4>
39 <!-- app id -->
40 <h4 class="card-title" style="font-size: 18px;">Appointment ID: <?php echo htmlspecialchars($bills['a_id']) ?></h4>
41 <!-- clinic name -->
42 <h5 class="card-subtitle mb-2 text-muted">Amount: <?php echo htmlspecialchars($bills['amount']) ?> $</h6>
43 </div>
44 </div>
45 </li>
46 </div>
47 <?php } ?>
48 <!-- END UNPAID ITEM -->
49 </ul>
50 <!--END UNPAID LIST -->
51 </div>
52 </div>
53 </div>
54
55 <?php include 'inc/footer.php'; ?>
```

index.php

```
1  <?php include 'inc/header.php'; ?>
2  <?php include 'inc/nav.php'; ?>
3  <?php include 'handlers/dbh.handler.php'; ?>
4
5  <?php
6
7      /* ----- GET ALL APPOINTMENTS----- */
8
9      // Create query
10     $sqlApp = 'SELECT Patients.name AS p_name, Dentists.name AS d_name, Appointments.date_time FROM Appointments, Patients, Dentists WHERE Appointments.
        patient_medicare =Patients.medicare AND Dentists.id =Appointments.dentist_id';
11
12     // SELECT patient_medicare, FROM Appointments, Dentists, Bills, Patients, Treatments WHERE Appointments.patient_medicare = Patients.medicare AND
        Appointments.dentist_id = Dentists.id AND Bills.a_id = Appointments.a_id AND Treatments.a_id = Appointments.a_id
13
14     // Make query & get results
15     $results = mysqli_query($conn, $sqlApp);
16
17     // Fetch the resulting rows as an associative array
18     $appointments = mysqli_fetch_all($results, MYSQLI_ASSOC);
19
20     // Free result from memory
21     mysqli_free_result($results);
22
23     /* ----- GET CLINIC NAMES----- */
24
25     // Create query
26     $queryClinicNames = 'SELECT * FROM Clinics';
27     // Make query & get results
28     $clinicNames = mysqli_query($conn, $queryClinicNames);
29
30     // Fetch the resulting rows as an associative array
31     $clinicNamesResults = mysqli_fetch_all($clinicNames, MYSQLI_ASSOC);
32
33     // Free result from memory
34     mysqli_free_result($clinicNames);
35
36     /* ----- GET DENTIST NAMES----- */
37
38     // Create query
39     $queryDentistsNames = 'SELECT name, clinic_name FROM Dentists';
40     // Make query & get results
41     $dentistsNames = mysqli_query($conn, $queryDentistsNames);
42
43     // Fetch the resulting rows as an associative array
44     $dentistsNamesResults = mysqli_fetch_all($dentistsNames, MYSQLI_ASSOC);
45
46     // Free result from memory
47     mysqli_free_result($dentistsNames);
48
49     /* ----- GET DISTINCT TREATMENTS ----- */
50     // Create query
51     $queryDistinctTreat = 'SELECT DISTINCT name, price FROM Treatments';
52     // Make query & get results
53     $distinctTreat = mysqli_query($conn, $queryDistinctTreat);
54
55     // Fetch the resulting rows as an associative array
56     $distinctTreatResults = mysqli_fetch_all($distinctTreat, MYSQLI_ASSOC);
```

myquery.php

```
1  <?php include 'inc/header.php'; ?>
2  <?php include 'inc/nav.php'; ?>
3  <?php include 'handlers/dbh.handler.php'; ?>
4
5  <?php
6      /* ----- GET QUERY ----- */
7
8      if(isset($_POST['query'])){
9
10         // Create query
11         $query = $_POST['comments'];
12
13         // Make query & get results
14         $queryL = mysqli_query($conn, $query);
15
16         // Fetch the resulting rows as an associative array
17         $queryLResults = mysqli_fetch_all($queryL, MYSQLI_ASSOC);
18
19         // Free result from memory
20         mysqli_free_result($queryL);
21
22     }
23
24 ?>
25
26 <div class="container mt-4">
27     <!-- ROW 1 -->
28     <div class="row">
29         <div class="col-md">
30             <h1>My Query</h1>
31         </div>
32     </div>
33     <!-- ROW 2 -->
34     <div class="row">
35         <div class="col-md">
36             <!-- UNPAID LIST -->
37             <form action="myquery.php" method="POST">
38                 <label for="exampleFormControlTextarea1">Insert Query Here</label>
39                 <textarea class="form-control" id="exampleFormControlTextarea1" rows="3" name="comments"></textarea>
40                 <br>
41                 <button type="submit" class="btn btn-primary" name="query">Query</button>
42             </form>
43
44             <!--END UNPAID LIST -->
45         </div>
46     </div>
47     <!-- ROW 3 -->
48     <div class="row">
49         <div class="col-md">
50             <br>
51             <table class="table">
52                 <?php foreach ( $queryLResults as $queryBig ) { ?>
53                     <thead>
54                         <tr>
55                             <?php foreach ( $queryBig as $key => $value ) { ?>
56                                 <th scope="col"><?php echo $key ?></th>
57                             <?php } ?>
58                         </tr>
```

header.php

```
1 <!doctype html>
2 <html lang="en">
3 <head>
4 <!-- Required meta tags -->
5 <meta charset="utf-8">
6 <meta name="viewport" content="width=device-width, initial-scale=1, shrink-to-fit=no">
7
8 <!-- Bootstrap CSS -->
9 <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0/css/bootstrap.min.css" integrity="
sha384-Gn5384xqQ1aowXA+058RXPxPg6fy4IWvTNh0E263XmFcJlSAwiGgFAW/dAiS6JXm" crossorigin="anonymous">
10
11 <!-- Custom CSS -->
12 <link rel="stylesheet" href="./css/style.css">
13
14 <title>Dentistry</title>
15 </head>
16 <body>
```

nav.php

```
1 <nav class="navbar navbar-expand-lg navbar-light bg-light">
2
3 <a class="navbar-brand" href="index.php">Dentistry</a>
4 <!-- DIV RELATED TO HAMBURGER MENU -->
5 <div class="collapse navbar-collapse" id="navbarSupportedContent">
6
7 <ul class="navbar-nav mr-auto">
8 <!-- DROP DOWN -->
9 <li class="nav-item dropdown">
10 <a class="nav-link dropdown-toggle active" href="#" id="navbarDropdown" role="button" data-toggle="dropdown" aria-haspopup="true" aria-expanded="
false">
Search
</a>
11 <!-- DROP DOWN MENU -->
12 <div class="dropdown-menu" aria-labelledby="navbarDropdown">
13 <a class="dropdown-item" href="index.php">Appointments</a>
14 <a class="dropdown-item" href="alldentists.php">Dentists</a>
15 <a class="dropdown-item" href="alltreatments.php">Treatments</a>
16 <a class="dropdown-item" href="allunpaidbills.php">Unpaid Bills</a>
17 <a class="dropdown-item" href="allmissed.php">Missed Appointments</a>
18 <div class="dropdown-divider"></div>
19 <a class="dropdown-item" href="allAppointments.php">All Appointments</a>
20 </div>
21 </li>
22 <!-- My Query -->
23 <li class="nav-item">
24 <a class="nav-link" href="myquery.php">My Query</a>
25 </li>
26 </ul>
27 </div>
28 <!-- END DIV RELATED TO HAMBURGER MENU -->
29 </nav>
```

footer.php

```
1 <!-- Optional JavaScript -->
2 <!-- jQuery first, then Popper.js, then Bootstrap JS -->
3 <script src="https://code.jquery.com/jquery-3.2.1.slim.min.js" integrity="sha384-KJ3o2DKtIkvYIK3UENzmM7KCKR/rE9/Qpg6aAZGJwFDMVNA/GpGFF93hXpG5KkN"
crossorigin="anonymous"></script>
4 <script src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.12.9/umd/popper.min.js" integrity="sha384-ApNbgh9B+Y1QKtv3Rn7W3mgPxhU9K/
SeQsAP7hUibX39j7fakFPskvXusvfa0b4Q" crossorigin="anonymous"></script>
5 <script src="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0/js/bootstrap.min.js" integrity="sha384-JZR65Pej4U02d8j0t6vLEHfe/
JQGiRRSQQxSfFFWpi1MquVdAyjUar5+76PVCmY1" crossorigin="anonymous"></script>
6 <script src="./js/app.js"></script>
7 </body>
8 </html>
```