

Code for Type/Object Creation:

```
CREATE TYPE date_discharged_obj AS object( d_day number(2), d_month
number(2),

d_year number(4) );

/

CREATE TYPE date_admitted_obj AS object( a_day number(2), a_month
number(2),

a_year number(4) );

/

CREATE TYPE contact_no AS varray(3) OF varchar2(15);

/

CREATE TYPE stay_period_obj AS object( date_discharged
date_discharged_obj,

date_admitted date_admitted_obj ) NOT FINAL;

/

CREATE TYPE patient_obj AS object( pid number(6), p_name varchar2(15),
p_sex
varchar2(1), address varchar2(30), stay_period stay_period_obj,
contacts
contact_no ) NOT FINAL;

/

CREATE TYPE e_address_obj AS object( street varchar2(30), city
varchar2(15),

state varchar2(15), zipcode number(5) );

/

CREATE TYPE employee_obj AS object( eid number(6), salary number(10),
e_sex
varchar2(1), e_name varchar2(30), e_contact_no varchar2(15), e_address
e_address_obj ) NOT FINAL;

/

CREATE TYPE nurse_obj under employee_obj( nurse_level number(6) );

/
```

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```
CREATE TYPE doctor_obj under employee_obj( specialization varchar2(30)
);
/

CREATE TYPE cares_obj AS object( pid ref patient_obj, eid ref
doctor_obj );
/

CREATE TYPE room_obj AS object( room_id number(6), room_type
varchar2(15) ) NOT

FINAL;
/

CREATE TYPE medicine_obj AS object( code number(15), medicine_name
varchar2(15) ) NOT

FINAL;
/

CREATE TYPE is_given_obj AS object( pid ref patient_obj, code ref
medicine_obj,

quantity varchar2(15) );
/

CREATE TYPE attends_to_obj AS object( eid ref nurse_obj, room_id ref
room_obj );
/

CREATE TYPE assigned_obj AS object( room_id ref room_obj, pid ref
patient_obj );
```

Output for Type Creation:

Type DATE_DISCHARGED_OBJ compiled

Type DATE_ADMITTED_OBJ compiled

Type CONTACT_NO compiled

Type STAY_PERIOD_OBJ compiled

Type PATIENT_OBJ compiled

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Type E_ADDRESS_OBJ compiled

Type EMPLOYEE_OBJ compiled

Type NURSE_OBJ compiled

Type DOCTOR_OBJ compiled

Type CARES_OBJ compiled

Type ROOM_OBJ compiled

Type MEDICINE_OBJ compiled

Type IS_GIVEN_OBJ compiled

Type ATTENDS_TO_OBJ compiled

Type ASSIGNED_OBJ compiled

Code for Creating Tables:

```
CREATE TABLE patient_tab OF patient_obj  
(pid PRIMARY KEY)  
object id PRIMARY KEY;
```

```
CREATE TABLE nurse_tab OF nurse_obj;
```

```
CREATE TABLE doctor_tab OF doctor_obj;
```

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```
CREATE TABLE medicine_tab OF medicine_obj  
(code PRIMARY KEY)  
object id PRIMARY KEY;
```

```
CREATE TABLE employee_tab OF employee_obj  
(eid PRIMARY KEY)  
object id PRIMARY KEY;
```

```
CREATE TABLE room_tab OF room_obj  
(room_id PRIMARY KEY)  
object id PRIMARY KEY;
```

```
CREATE TABLE attends_to_tab OF attends_to_obj  
(FOREIGN KEY (room_id)  
REFERENCES room_tab ON DELETE CASCADE,  
FOREIGN KEY (eid)  
REFERENCES nurse_tab ON DELETE CASCADE);
```

```
CREATE TABLE is_given_tab OF is_given_obj  
(FOREIGN KEY (pid)  
REFERENCES patient_tab ON DELETE CASCADE,  
FOREIGN KEY (code)  
REFERENCES medicine_tab ON DELETE CASCADE);
```

```
CREATE TABLE assigned_tab OF assigned_obj  
(FOREIGN KEY (room_id)  
REFERENCES room_tab ON DELETE CASCADE,  
FOREIGN KEY (pid)  
REFERENCES patient_tab ON DELETE CASCADE);
```

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```
CREATE TABLE cares_tab OF cares_obj
(FOREIGN KEY (pid)
REFERENCES patient_tab ON DELETE CASCADE,
FOREIGN KEY (eid)
REFERENCES doctor_tab ON DELETE CASCADE);
```

Output for Table Creation:

Table PATIENT_TAB created.

Table NURSE_TAB created.

Table DOCTOR_TAB created.

Table MEDICINE_TAB created.

Table EMPLOYEE_TAB created.

Table ROOM_TAB created.

Table ATTENDS_TO_TAB created.

Table IS_GIVEN_TAB created.

Table ASSIGNED_TAB created.

Table CARES_TAB created.

JDBC:

```
package CS5513;
```

```
//import all necessary libraries
```

```
import java.io.FileNotFoundException;
```

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```
import java.sql.Connection;
import java.sql.PreparedStatement;
import java.sql.SQLException;
import oracle.jdbc.pool.OracleDataSource;
import java.sql.Statement;
import java.sql.ResultSet;
import javax.servlet.http.HttpSession;

/**
 * This class is in charge of communicating with the Oracle Database
 * to perform the queries to insert, find and delete.
 * @author Emily Black
 * @homework 2
 * @date 03/21/18
 * @source lectures
 */
public class DataHandler {
    String jdbcUrl =
"jdbc:oracle:thin:@//oracle.cs.ou.edu:1521/pdborcl.cs.ou.edu";
    Connection conn;
    String userid = "username";
    String password = "password";
    Statement stmt;
    ResultSet rset;

    /**
     * This class gets the current DB connection.
     *
     * @throws SQLException
     */
    public void getDBConnection() throws SQLException {
```

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```
        OracleDataSource ds;

        ds = new OracleDataSource();

        ds.setURL(jdbcUrl);

        conn = ds.getConnection(userid, password);

    }

    /** Authenticates user.
     *
     * @throws SQLException
     */
    public boolean authenticateUser(String jdbcUrl, String userid,
String password, HttpSession session) throws SQLException {
        this.jdbcUrl = jdbcUrl;
        this.userid = userid;
        this.password = password;

        try {
            OracleDataSource ds = new OracleDataSource();

            ds.setURL(jdbcUrl);

            conn = ds.getConnection(userid, password); //connect to DB

            return true;

        } catch (SQLException ex) {
            System.out.println("Invalid user credentials");

            session.setAttribute("loginerrorormsg", "Invalid Login. Try
Again...");

            this.jdbcUrl = null;
            this.userid = null;
            this.password = null;

            return false;

        }

    }
}
```

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```
/**
 * Query 1 - Insert the complete information for a patient.
 *
 * @return Patient table
 * @throws SQLException, FileNotFoundException
 */
public ResultSet queryOne(int pid, String p_name, String p_sex,
String address, String d_day, String d_month, String d_year, String
a_day, String a_month, String a_year, String[] contacts) throws
SQLException, FileNotFoundException {

    // Connect to the database.
    getDBConnection();

    /**
     * Here we create a string with '?' placeholders.
     */
    String contactsStr = "contact_no(";

    for (int i = 0; i < contacts.length - 1; i++) {
        contactsStr += "?, ";
    }
    if (contacts.length > 0) {
        contactsStr += "?";
    }
    contactsStr += ")";

    String sqlInsertPatient =

        "INSERT INTO patient_tab VALUES(?, ?, ?, ?,
stay_period_obj(date_discharged_obj(?, ?, ?), date_admitted_obj(?, ?,
?)), " +

        contactsStr + ")";
```


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```
try (PreparedStatement stmt =
conn.prepareStatement(sqlInsertPatient);) {

    stmt.setInt(1, pid);

    stmt.setString(2, p_name);
    stmt.setString(3, p_sex);
    stmt.setString(4, address);
    stmt.setString(5, d_day);
    stmt.setString(6, d_month);
    stmt.setString(7, d_year);
    stmt.setString(8, a_day);
    stmt.setString(9, a_month);
    stmt.setString(10, a_year);

    // Now set the contacts
    for (int i = 0; i < contacts.length; i++) {
        stmt.setString(11 + i, contacts[i]);
    }

    // Run the query
    stmt.execute();
} catch (SQLException e) {
    e.printStackTrace();
}

// Return patient table
String sqlGetAllPatients =

    "SELECT P.pid, " +
    "P.p_name, " +
    "P.p_sex, " +
    "P.address, " +
    "P.stay_period.date_discharged.d_day, " +
```

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```
        "P.stay_period.date_discharged.d_month, " +
        "P.stay_period.date_discharged.d_year, " +
        "P.stay_period.date_admitted.a_day, " +
        "P.stay_period.date_admitted.a_month, " +
        "P.stay_period.date_admitted.a_year, " +
        "P.contacts " +
        "FROM patient_tab P";

    // Prepare the SQL query.
    PreparedStatement stmt =
conn.prepareStatement(sqlGetAllPatients);

    //execute the query and store the result in the ResultSet rset
    rset = stmt.executeQuery();
    return rset;
}

/**
 * Query 2 - Insert the complete information for a nurse.
 *
 * @return Nurse table
 * @throws SQLException, FileNotFoundException
 */
public ResultSet queryTwo(int eid, int salary, String e_sex,
String e_name, String e_contact_no, String street, String city, String
state, int zipcode, int nurse_level) throws SQLException,
FileNotFoundException {
    // Connect to the database.
    getDBConnection();

    // Elaborate a string with the content of the insertion query
    String sqlInsertNurse =
```

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```
        "INSERT INTO nurse_tab VALUES(?, ?, ?, ?, ?,  
e_address_obj(?, ?, ?, ?), ?)";
```

```
        try (PreparedStatement stmt =  
conn.prepareStatement(sqlInsertNurse);) {  
  
            stmt.setInt(1, eid);  
            stmt.setInt(2, salary);  
            stmt.setString(3, e_sex);  
            stmt.setString(4, e_name);  
            stmt.setString(5, e_contact_no);  
            stmt.setString(6, street);  
            stmt.setString(7, city);  
            stmt.setString(8, state);  
            stmt.setInt(9, zipcode);  
            stmt.setInt(10, nurse_level);
```

```
        // Run the query  
        stmt.execute();  
    } catch (SQLException e) {  
        e.printStackTrace();  
    }  
}
```

```
// Return nurse table  
String sqlGetAllNurses =  
    "SELECT N.eid, " +  
    "N.salary, " +  
    "N.e_sex, " +  
    "N.e_name, " +  
    "N.e_contact_no, " +  
    "N.e_address.street, " +  
    "N.e_address.city, " +  
    "N.e_address.state, " +
```

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```
        "N.e_address.zipcode, " +
        "N.nurse_level " +
        "FROM nurse_tab N";

    // Prepare the SQL query.
    PreparedStatement stmt =
conn.prepareStatement(sqlGetAllNurses);

    //execute the query and store the result in the ResultSet rset
    rset = stmt.executeQuery();
    return rset;
}

/**
 * Query 3 - Insert the complete information for a doctor and
 * associate him/her with a patient.
 *
 * @return Doctor table
 * @throws SQLException, FileNotFoundException
 */
public ResultSet queryThree(int eid, int salary, String e_sex,
String e_name, String e_contact_no, String street, String city, String
state, int zipcode, String specialization, int pid) throws
SQLException, FileNotFoundException {
    // Connect to the database.
    getDBConnection();

    // Elaborate a string with the content of the insertion query.
    // Doctor table
    String sqlInsertDoctor =
        "INSERT INTO doctor_tab VALUES(?, ?, ?, ?, ?,
e_address_obj(?, ?, ?, ?), ?)";
```

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```
        try (PreparedStatement stmt =
conn.prepareStatement(sqlInsertDoctor);) {

            stmt.setInt(1, eid);

            stmt.setInt(2, salary);

            stmt.setString(3, e_sex);

            stmt.setString(4, e_name);

            stmt.setString(5, e_contact_no);

            stmt.setString(6, street);

            stmt.setString(7, city);

            stmt.setString(8, state);

            stmt.setInt(9, zipcode);

            stmt.setString(10, specialization);


            // Run the query

            stmt.execute();

        } catch (SQLException e) {

            e.printStackTrace();

        }


        // Cares table

        String sqlInsertCares =

            "INSERT INTO cares_tab (SELECT cares_obj (REF(P), REF(D))

" +

            "FROM patient_tab P, doctor_tab D " +

            "WHERE P.pid = ? AND D.eid = ?)";

        try (PreparedStatement stmt =
conn.prepareStatement(sqlInsertCares);) {

            stmt.setInt(1, pid);

            stmt.setInt(2, eid);


            // Run the query
```

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```
        stmt.execute();
    } catch (SQLException e) {
        e.printStackTrace();
    }

    // Return doctor table
    String sqlGetAllDoctors =
        "SELECT D.eid, " +
        "D.salary, " +
        "D.e_sex, " +
        "D.e_name, " +
        "D.e_contact_no, " +
        "D.e_address.street, " +
        "D.e_address.city, " +
        "D.e_address.state, " +
        "D.e_address.zipcode, " +
        "D.specialization " +
        "FROM doctor_tab D";

    // Prepare the SQL query.
    PreparedStatement stmt =
    conn.prepareStatement(sqlGetAllDoctors);

    //execute the query and store the result in the ResultSet rset
    rset = stmt.executeQuery();
    return rset;
}

/**
 * Query 4 - Insert the complete information for a room and
 * associate it with a patient and a nurse.
```

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```
*  
  
* @return Room table  
  
* @throws SQLException, FileNotFoundException  
  
*/  
  
public ResultSet queryFour(int room_id, String room_type, int pid,  
int eid) throws SQLException, FileNotFoundException {  
    // Connect to the database.  
    getDBConnection();  
  
    // Elaborate a string with the content of the insertion query.  
    // Room table  
    String sqlInsertRoom =  
        "INSERT INTO room_tab VALUES(?, ?)";  
    try (PreparedStatement stmt =  
conn.prepareStatement(sqlInsertRoom);) {  
        stmt.setInt(1, room_id);  
        stmt.setString(2, room_type);  
  
        // Run the query  
        stmt.execute();  
    } catch (SQLException e) {  
        e.printStackTrace();  
    }  
  
    // Assigned table  
    String sqlInsertAssigned =  
        "INSERT INTO assigned_tab (SELECT assigned_obj (REF(R),  
REF(P)) " +  
        "FROM room_tab R, patient_tab P " +  
        "WHERE R.room_id = ? AND P.pid = ?)";  
    try (PreparedStatement stmt =  
conn.prepareStatement(sqlInsertAssigned);) {
```

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```
        stmt.setInt(1, room_id);
        stmt.setInt(2, pid);

        // Run the query
        stmt.execute();
    } catch (SQLException e) {
        e.printStackTrace();
    }

    // Attends_to table
    String sqlInsertAttendsTo =
        "INSERT INTO attends_to_tab (SELECT attends_to_obj\n" +
        "(REF(N), REF(R)) " +
        "FROM nurse_tab N, room_tab R " +
        "WHERE N.eid = ? AND R.room_id = ?)";

    try (PreparedStatement stmt =
        conn.prepareStatement(sqlInsertAttendsTo);) {
        stmt.setInt(1, eid);
        stmt.setInt(2, room_id);

        // Run the query
        stmt.execute();
    } catch (SQLException e) {
        e.printStackTrace();
    }

    // Return room table
    String sqlGetAllRooms =
        "SELECT R.room_id, " +
        "R.room_type " +
        "FROM room_tab R";
```


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```
// Prepare the SQL query.

PreparedStatement stmt =
conn.prepareStatement(sqlGetAllRooms);

//execute the query and store the result in the ResultSet rset
rset = stmt.executeQuery();

return rset;
}

/**
 * Query 5 - Insert the complete information for a medicine and
 * associate it with a patient.
 *
 * @return Medicine table
 * @throws SQLException, FileNotFoundException
 */
public ResultSet queryFive(int code, String medicine_name, int
pid, String quantity) throws SQLException, FileNotFoundException {

    // Connect to the database.

    getDBConnection();

    // Elaborate a string with the content of the insertion query.
    // Medicine table

    String sqlInsertMedicine =

        "INSERT INTO medicine_tab VALUES(?, ?)";

    try (PreparedStatement stmt =
conn.prepareStatement(sqlInsertMedicine);) {

        stmt.setInt(1, code);

        stmt.setString(2, medicine_name);

        // Run the query
```

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```
        stmt.execute();
    } catch (SQLException e) {
        e.printStackTrace();
    }

    // Is_given table
    String sqlInsertIsGiven =
        "INSERT INTO is_given_tab (SELECT is_given_obj (REF(P),
REF(M), ?) " +
        "FROM patient_tab P, medicine_tab M " +
        "WHERE P.pid = ? AND M.code = ?)";

    try (PreparedStatement stmt =
conn.prepareStatement(sqlInsertIsGiven);) {
        stmt.setString(1, quantity);
        stmt.setInt(2, pid);
        stmt.setInt(3, code);

        // Run the query
        stmt.execute();
    } catch (SQLException e) {
        e.printStackTrace();
    }

    // Return medicine table
    String sqlGetAllMedicines =
        "SELECT T.code, " +
        "T.medicine_name " +
        "FROM medicine_tab T";

    // Prepare the SQL query.
```

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```
        PreparedStatement stmt =
conn.prepareStatement(sqlGetAllMedicines);

        //execute the query and store the result in the ResultSet rset
        rset = stmt.executeQuery();
        return rset;
    }

    /**
     * Query 6 - Find the complete information for all the patients
     * who were in the hospital during a particular month of a particular
     * year (e.g. during July of 2017).
     *
     * @return Patient table
     * @throws SQLException, FileNotFoundException
     */
    public ResultSet querySix(int month, int year) throws
    SQLException, FileNotFoundException {
        // Connect to the database.
        getDBConnection();
        String sqlFindPatients;

        // Query for all patients if inputs are null
        if (month == -1 && year == -1) {
            sqlFindPatients =
                "SELECT P.pid, " +
                "P.p_name, " +
                "P.p_sex, " +
                "P.address, " +
                "P.stay_period.date_discharged.d_day, " +
                "P.stay_period.date_discharged.d_month, " +
                "P.stay_period.date_discharged.d_year, " +
```

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```
        "P.stay_period.date_admitted.a_day, " +
        "P.stay_period.date_admitted.a_month, " +
        "P.stay_period.date_admitted.a_year, " +
        "P.contacts " +
        "FROM patient_tab P";

    // Prepare the SQL query.

    PreparedStatement stmt =
conn.prepareStatement(sqlFindPatients);

    //execute the query and store the result in the ResultSet
rset

    rset = stmt.executeQuery();

    return rset;

} else {
    sqlFindPatients =
        "SELECT P.pid, " +
        "P.p_name, " +
        "P.p_sex, " +
        "P.address, " +
        "P.stay_period.date_discharged.d_day, " +
        "P.stay_period.date_discharged.d_month, " +
        "P.stay_period.date_discharged.d_year, " +
        "P.stay_period.date_admitted.a_day, " +
        "P.stay_period.date_admitted.a_month, " +
        "P.stay_period.date_admitted.a_year, " +
        "P.contacts " +
        "FROM patient_tab P " +
        "WHERE ((? BETWEEN P.stay_period.date_admitted.a_month
AND P.stay_period.date_discharged.d_month) OR NOT (? BETWEEN
```

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```
P.stay_period.date_admitted.a_month AND
P.stay_period.date_discharged.d_month)) " +

        "AND (? BETWEEN P.stay_period.date_admitted.a_year AND
P.stay_period.date_discharged.d_year)";

        // Prepare the SQL query.
        PreparedStatement stmt =
conn.prepareStatement(sqlFindPatients);

        stmt.setInt(1, month);
        stmt.setInt(2, month);
        stmt.setInt(3, year);

        //execute the query and store the result in the ResultSet
rset

        rset = stmt.executeQuery();
        return rset;

    }

}

/**
 * Query 7 - Find the complete information for all the doctors who
care for more than two patients.
 *
 * For this one, to make the web page more dynamic to use, we let
the user custom enter a number.
 *
 * The suggested/hinted number defaults to 2 though, because the
homework description says 2.
 *
 * @throws SQLException, FileNotFoundException
 */
public ResultSet querySeven(int numOfPatients) throws
SQLException, FileNotFoundException {
```

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```
// Connect to the database.

getDBConnection();

String sqlFindDoctors;

// Query for all doctors if inputs are null
if (numOfPatients == -1) {
    sqlFindDoctors =
        "SELECT D.eid, " +
        "D.salary, " +
        "D.e_sex, " +
        "D.e_name, " +
        "D.e_contact_no, " +
        "D.e_address.street, " +
        "D.e_address.city, " +
        "D.e_address.state, " +
        "D.e_address.zipcode, " +
        "D.specialization " +
        "FROM doctor_tab D";

    // Prepare the SQL query.

    PreparedStatement stmt =
conn.prepareStatement(sqlFindDoctors);

    // Run the query

    rset = stmt.executeQuery();

    return rset;
} else {

    sqlFindDoctors = "SELECT D.eid, D.salary, D.e_sex,
D.e_name, D.e_contact_no, D.e_address.street, D.e_address.city,
D.e_address.state, D.e_address.zipcode, D.specialization " +
        "FROM doctor_tab D " +
```

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```
        "WHERE (SELECT COUNT((T1.pid).pid) FROM cares_tab T1
WHERE ((T1.eid).eid) = D.eid) > ?";

        // Prepare the SQL query.

        PreparedStatement stmt =
conn.prepareStatement(sqlFindDoctors);

        stmt.setInt(1, numPatients);

        // Run the query

        rset = stmt.executeQuery();

        return rset;
    }
}

/**
 * Query 8 - Find the complete information for all the nurses who
tend to patients that are given a certain medicine (e.g. medicine
code: 123).
 *
 * @throws SQLException, FileNotFoundException
 */

public ResultSet queryEight(int code) throws SQLException,
FileNotFoundException {

    // Connect to the database.

    getDBConnection();

    String sqlFindNurses = "SELECT N1.eid, N1.salary, N1.e_sex,
N1.e_name, N1.e_contact_no, N1.e_address.street, N1.e_address.city,
N1.e_address.state, N1.e_address.zipcode, N1.nurse_level " +

        "FROM nurse_tab N1 " +

        "WHERE N1.eid IN (SELECT (T1.eid).eid FROM attends_to_tab
T1 WHERE (T1.eid).eid = N1.eid " +

        "AND (T1.room_id).room_id IN (SELECT (T2.room_id).room_id
FROM assigned_tab T2 WHERE (T2.room_id).room_id = (T1.room_id).room_id
" +
```

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```
        "AND (T2.pid).pid IN (SELECT (T3.pid).pid FROM  
is_given_tab T3 WHERE (T3.pid).pid = (T2.pid).pid AND (T3.code).code =  
?)));";
```

```
        // Prepare the SQL query.  
        PreparedStatement stmt = conn.prepareStatement(sqlFindNurses);  
        stmt.setLong(1, code);  
  
        // Run the query  
        rset = stmt.executeQuery();  
        return rset;  
    }  
  
    /**
```

```
        * Query 9 - Delete all the patients who were discharged before a  
particular year.
```

```
        *
```

```
        * @return Patient table
```

```
        * @throws SQLException, FileNotFoundException
```

```
        */
```

```
        public ResultSet queryNine(int year) throws SQLException,  
FileNotFoundException {
```

```
            // Connect to the database.
```

```
            getDBConnection();
```

```
            // Elaborate a string with the content of the insertion query
```

```
            String sqlDeletePatientsYear =
```

```
                "DELETE FROM patient_tab P " +
```

```
                "WHERE P.stay_period.date_discharged.d_year < ?";
```

```
            try (PreparedStatement stmt =  
conn.prepareStatement(sqlDeletePatientsYear);) {
```

```
                stmt.setInt(1, year);
```


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```
        // Run the query
        stmt.execute();
    } catch (SQLException e) {
        e.printStackTrace();
    }

    // Return patient table
    String sqlGetAllPatients =
        "SELECT P.pid, " +
        "P.p_name, " +
        "P.p_sex, " +
        "P.address, " +
        "P.stay_period.date_discharged.d_day, " +
        "P.stay_period.date_discharged.d_month, " +
        "P.stay_period.date_discharged.d_year, " +
        "P.stay_period.date_admitted.a_day, " +
        "P.stay_period.date_admitted.a_month, " +
        "P.stay_period.date_admitted.a_year, " +
        "P.contacts " +
        "FROM patient_tab P";

    // Prepare the SQL query.
    PreparedStatement stmt =
    conn.prepareStatement(sqlGetAllPatients);

    //execute the query and store the result in the ResultSet rset
    rset = stmt.executeQuery();
    return rset;
}
```

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```
/**
 * Query 10 - Delete all the patients who have not been assigned a
room.
 *
 * @return Patient table
 * @throws SQLException, FileNotFoundException
 */
public ResultSet queryTen() throws SQLException,
FileNotFoundException {
    // Connect to the database.
    getDBConnection();

    // Elaborate a string with the content of the insertion query
    String sqlDeletePatientsNoRoom =
        "DELETE FROM patient_tab P " +
        "WHERE P.pid NOT IN (SELECT (T1.pid).pid FROM assigned_tab
T1)";

    try (PreparedStatement stmt =
conn.prepareStatement(sqlDeletePatientsNoRoom);) {
        // Run the query
        stmt.execute();
    } catch (SQLException e) {
        e.printStackTrace();
    }

    // Return patient table
    String sqlGetAllPatients =
        "SELECT P.pid, " +
        "P.p_name, " +
        "P.p_sex, " +
        "P.address, " +
        "P.stay_period.date_discharged.d_day, " +
```

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```
"P.stay_period.date_discharged.d_month, " +
"P.stay_period.date_discharged.d_year, " +
"P.stay_period.date_admitted.a_day, " +
"P.stay_period.date_admitted.a_month, " +
"P.stay_period.date_admitted.a_year, " +
"P.contacts " +
"FROM patient_tab P";

// Prepare the SQL query.
PreparedStatement stmt =
conn.prepareStatement(sqlGetAllPatients);

//execute the query and store the result in the ResultSet rset
rset = stmt.executeQuery();
return rset;
}

}
```

JSP – Login Page/Action:

```
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1" session="true"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">
<html>
    <head>
        <meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">
        <title>Login</title>
    </head>
    <body>
        <h2 align="center">
            CS5513: Emily Black's Homework 2
        </h2>
        <h3 align="center">
            Login with your Oracle credentials.
        </h3>
        <h3 align="center">
            <jsp:useBean id="empsbean" class="CS5513.DataHandler"
scope="session"/>
        </h3>
```

```

    <form action="LoginAction.jsp" method="post">
        <div align="center">
            <p>&nbsp;</p>
            <table style="width: 50%">
                <tr>
                    <td width="38%">
                        <strong>Username:</strong>
                    </td>
                    <td width="62%">
                        <input type="text" name="username"/>
                    </td>
                </tr>
                <tr>
                    <td width="38%">
                        <strong>Password:</strong>
                    </td>
                    <td width="62%">
                        <input type="password"
name="password"/>
                    </td>
                </tr>
            </table>
            <input type="submit" value="Login"/>
            <p>
                &nbsp;</p>
        </div>
    </form>
</body>
</html>

<%@page import="CS5513.DataHandler"%>
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1" session="true"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">
<html>
    <head>
        <meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">
    </head>
    <body>
        <%
            CS5513.DataHandler handler = new CS5513.DataHandler();

            if(handler.authenticateUser("jdbc:oracle:thin:@//oracle.cs.ou.edu:1521/pdborcl
.cs.ou.edu",
                request.getParameter("username"),
request.getParameter("password"), request.getSession(true)) == true)
            {
                // Memorize any passed in user/password.
                String username = request.getParameter("username");

```

```

        String password = request.getParameter("password");
        if (username != null && username.length() > 0) {
            session.setAttribute("username", username);
        }
        if (password != null && password.length() > 0) {
            session.setAttribute("password", password);
        }
        // Successfully authenticated
        RequestDispatcher req =
request.getRequestDispatcher("homePage.jsp");
        req.include(request, response);
    }
    else
    {
        // Failed to authenticate
        RequestDispatcher req =
request.getRequestDispatcher("login.jsp");
        req.include(request, response);
    }
    %>
</body>
</html>

```

JSP – Home Page/Action/Go Home:

```

<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1" session="true"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">
<html>
    <head>
        <meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">
        <title>Home</title>
    </head>
    <body>
        <h2 align="center">
            CS5513: Emily Black's Homework 2
        </h2>
        <form action="homePageAction.jsp">
            <div align="center">
                <p>&nbsp;</p>
                <table cellpadding="3" cellspacing="2" border="1"
width="369">
                    <tr>
                        <td width="50%">
                            <strong>Query 1:</strong>
                        </td>
                        <td width="50%">
                            <input type="submit"
name="query1button" value="Go To"/>
                        </td>
                    </tr>
                    <tr>
                        <td width="50%">
                            <strong>Query 2:</strong>

```

```

        </td>
        <td width="50%">
            <input type="submit"
name="query2button" value="Go To"/>
        </td>
    </tr>
    <tr>
        <td width="50%">
            <strong>Query 3:</strong>
        </td>
        <td width="50%">
            <input type="submit"
name="query3button" value="Go To"/>
        </td>
    </tr>
    <tr>
        <td width="50%">
            <strong>Query 4:</strong>
        </td>
        <td width="50%">
            <input type="submit"
name="query4button" value="Go To"/>
        </td>
    </tr>
    <tr>
        <td width="50%">
            <strong>Query 5:</strong>
        </td>
        <td width="50%">
            <input type="submit"
name="query5button" value="Go To"/>
        </td>
    </tr>
    <tr>
        <td width="50%">
            <strong>Query 6:</strong>
        </td>
        <td width="50%">
            <input type="submit"
name="query6button" value="Go To"/>
        </td>
    </tr>
    <tr>
        <td width="50%">
            <strong>Query 7:</strong>
        </td>
        <td width="50%">
            <input type="submit"
name="query7button" value="Go To"/>
        </td>
    </tr>
    <tr>
        <td width="50%">
            <strong>Query 8:</strong>
        </td>
    </tr>

```

```

        <td width="50%">
            <input type="submit"
name="query8button" value="Go To"/>
        </td>
    </tr>
    <tr>
        <td width="50%">
            <strong>Query 9:</strong>
        </td>
        <td width="50%">
            <input type="submit"
name="query9button" value="Go To"/>
        </td>
    </tr>
    <tr>
        <td width="50%">
            <strong>Query 10:</strong>
        </td>
        <td width="50%">
            <input type="submit"
name="query10button" value="Go To"/>
        </td>
    </tr>
</table>
<table cellspacing="3" cellpadding="2" border="0">
    <tr>
        <td>
            <input type="submit"
name="logoutbutton" value="Logout"/>
        </td>
    </tr>
</table>
<p>
    &nbsp;
</p>
</div>
</form>
</body>
</html>

<%@page import="CS5513.DataHandler"%>
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1" session="true"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">
<html>
    <head>
        <meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">
    </head>
    <body>
        <%
            // Might need to make these buttons instead of input fields if
            throwing error

```

```
        if(request.getParameter("query1button") != null)
        {
            response.sendRedirect("queryOne.jsp");
        }
        else if(request.getParameter("query2button") != null)
        {
            response.sendRedirect("queryTwo.jsp");
        }
        else if(request.getParameter("query3button") != null)
        {
            response.sendRedirect("queryThree.jsp");
        }
        else if(request.getParameter("query4button") != null)
        {
            response.sendRedirect("queryFour.jsp");
        }
        else if(request.getParameter("query5button") != null)
        {
            response.sendRedirect("queryFive.jsp");
        }
        else if(request.getParameter("query6button") != null)
        {
            response.sendRedirect("querySix.jsp");
        }
        else if(request.getParameter("query7button") != null)
        {
            response.sendRedirect("querySeven.jsp");
        }
        else if(request.getParameter("query8button") != null)
        {
            response.sendRedirect("queryEight.jsp");
        }
        else if(request.getParameter("query9button") != null)
        {
            response.sendRedirect("queryNine.jsp");
        }
        else if(request.getParameter("query10button") != null)
        {
            response.sendRedirect("queryTen.jsp");
        }
        else if(request.getParameter("logoutbutton") != null)
        {
            response.sendRedirect("login.jsp");
        }
    }
    %>
</body>
</html>

<%@page import="CS5513.DataHandler"%>
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1" session="true"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">
<html>
```



```

    <head>
        <meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">
    </head>
    <body>
        <%
            RequestDispatcher req =
request.getRequestDispatcher("homePage.jsp");
            req.include(request, response);
        %>
    </body>
</html>

```

JSP – Query One/Action:

```

<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1" session="true"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">
<html>
    <head>
        <meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">
        <title>Insert a patient record</title>
    </head>
    <body>
        <h2 align="center">
            CS5513: Emily Black's Homework 2
        </h2>
        <h3 align="center">
            Insert the complete information for a patient.
        </h3>
        <h3 align="center">
            <jsp:useBean id="empsbean" class="CS5513.DataHandler"
scope="session"/>
        </h3>
        <form action="queryOneAction.jsp">
            <div align="center">
                <p>&nbsp;</p>
                <table cellpadding="3" cellspacing="2" border="1"
width="369">
                    <tr>
                        <td width="38%">
                            <strong>Patient's ID:</strong>
                        </td>
                        <td width="62%">
                            <input type="text" name="pid"/>
                        </td>
                    </tr>
                    <tr>
                        <td width="38%">
                            <strong>Patient's Name:</strong>
                        </td>
                        <td width="62%">
                            <input type="text" name="p_name"/>
                        </td>
                    </tr>
                </table>
            </div>
        </form>
    </body>
</html>

```

```

<tr>
  <td width="38%">
    <strong>Patient's Sex:</strong>
  </td>
  <td width="62%">
    <input type="text" name="p_sex"/>
  </td>
</tr>
<tr>
  <td width="38%">
    <strong>Patient's Address:</strong>
  </td>
  <td width="62%">
    <input type="text" name="address"/>
  </td>
</tr>
<tr>
  <td width="38%">
    <strong>Patient's Contacts (separate by
commas):</strong>
  </td>
  <td width="62%">
    <input type="text" name="contacts"/>
  </td>
</tr>
<tr>
  <td width="38%">
    <strong>Patient's Day
Admitted:</strong>
  </td>
  <td width="62%">
    <input type="text" name="a_day"/>
  </td>
</tr>
<tr>
  <td width="38%">
    <strong>Patient's Month
Admitted:</strong>
  </td>
  <td width="62%">
    <input type="text" name="a_month"/>
  </td>
</tr>
<tr>
  <td width="38%">
    <strong>Patient's Year
Admitted:</strong>
  </td>
  <td width="62%">
    <input type="text" name="a_year"/>
  </td>
</tr>
<tr>
  <td width="38%">

```

```

Discharged:</strong>
<strong>Patient's Day
</td>
<td width="62%">
  <input type="text" name="d_day"/>
</td>
</tr>
<tr>
  <td width="38%">
    <strong>Patient's Month
Discharged:</strong>
  </td>
  <td width="62%">
    <input type="text" name="d_month"/>
  </td>
</tr>
<tr>
  <td width="38%">
    <strong>Patient's Year
Discharged:</strong>
  </td>
  <td width="62%">
    <input type="text" name="d_year"/>
  </td>
</tr>
</table>
<table cellpadding="3" cellspacing="2" border="0">
  <tr>
    <td>
      <input type="submit"
name="insertbutton" value="Insert Patient"/>
    </td>
    <td>
      <input type="submit" name="backbutton"
value="Back"/>
    </td>
  </tr>
</table>
<p>
  &nbsp;
</p>
</div>
</form>
</body>
</html>

```

```

<%@ page import="CS5513.DataHandler"%>
<%@ page import="java.sql.*"%>
<%@ page import="java.util.*"%>
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1" session="true"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">

```

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```
<html>
  <head>
    <meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">
    <title>Insert a patient record</title>
  </head>
  <body>
    <h2 align="center">
      CS5513: Emily Black's Homework 2
    </h2>
    <h3 align="center">
      Successfully updated the patient table.
    </h3>
    <h3 align="center">
      <jsp:useBean id="empsbean" class="CS5513.DataHandler"
scope="session"/>
    </h3>
    <div align="center">
      <p>&nbsp;</p>
      <%
        ResultSet rset;
        CS5513.DataHandler handler = new
CS5513.DataHandler();

        boolean auth =
handler.authenticateUser("jdbc:oracle:thin:@//oracle.cs.ou.edu:1521/pdborcl.cs.ou.edu
", session.getAttribute("username").toString(),
session.getAttribute("password").toString(), request.getSession(true));

        if(request.getParameter("insertbutton") != null &&
auth == true)
        {
          rset =
handler.queryOne(Integer.parseInt(request.getParameter("pid")),
          request.getParameter("p_name"),
          request.getParameter("p_sex"),
          request.getParameter("address"),
          request.getParameter("d_day"),
          request.getParameter("d_month"),
          request.getParameter("d_year"),
          request.getParameter("a_day"),
          request.getParameter("a_month"),
          request.getParameter("a_year"),
          request.getParameter("contacts").split(","));

          out.println("<form action='goHomeAction.jsp'
align='center'>");
          out.println("<div
align='center'><p>&nbsp;</p>");
          out.println("<table cellpadding='3' border='1' width='100%'>");
          out.println("<tr>");
          out.println("<th>" + "Patient's ID" +
"</th>");
          out.println("<th>" + "Patient's Name" +
"</th>");
```

```

" </th>");
" </th>");
Date" + " </th>");
Date" + " </th>");
" </th>");

(String[])a.getArray();

align="center"> " +
align="center"> " +
align="center"> " +
align="center"> " +
rset.getObject(5) + "/" + rset.getObject(7) + "</td><td align="center"> " +
rset.getObject(8) + "/" + rset.getObject(10) + "</td><td align="center"> " +
    out.println("<tr>");
    out.println("<td align="center"> " +
        rset.getInt(1) + "</td><td>
        rset.getString(2) + "</td><td>
        rset.getString(3) + "</td><td>
        rset.getString(4) + "</td><td>
        rset.getObject(6) + "/" +
        rset.getObject(9) + "/" +
        Arrays.toString(result) + "</td>");
    out.println("</tr>");
}

out.println("</table>");
out.println("<table cellpadding='3' cellspacing='2' border='0' width='100%'>");
out.println("<tr>");
out.println("<td><input type='submit'");
name='backbutton' value='Home' /></td>");
out.println("</tr>");
out.println("</table>");
out.println("</div></form>");
}
else if(request.getParameter("backbutton") != null)
{
    response.sendRedirect("homePage.jsp");
}

%>
<p>&nbsp;</p>
</div>
</body>

```

</html>

JSP – Query Two/Action:

```

<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1" session="true"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">
<html>
    <head>
        <meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">
        <title>Insert a nurse record</title>
    </head>
    <body>
        <h2 align="center">
            CS5513: Emily Black's Homework 2
        </h2>
        <h3 align="center">
            Insert the complete information for a nurse.
        </h3>
        <h3 align="center">
            <jsp:useBean id="empsbean" class="CS5513.DataHandler"
scope="session"/>
        </h3>
        <form action="queryTwoAction.jsp">
            <div align="center">
                <p>&nbsp;</p>
                <table cellpadding="3" cellspacing="2" border="1"
width="369">
                    <tr>
                        <td width="38%">
                            <strong>Nurse's Employee ID:</strong>
                        </td>
                        <td width="62%">
                            <input type="text" name="eid"/>
                        </td>
                    </tr>
                    <tr>
                        <td width="38%">
                            <strong>Nurse's Salary:</strong>
                        </td>
                        <td width="62%">
                            <input type="text" name="salary"/>
                        </td>
                    </tr>
                    <tr>
                        <td width="38%">
                            <strong>Nurse's Sex:</strong>
                        </td>
                        <td width="62%">
                            <input type="text" name="e_sex"/>
                        </td>
                    </tr>
                    <tr>
                        <td width="38%">

```

	Nurse's Name:
	<input name="e_name" type="text"/>
Number:	Nurse's Contact
	<input name="e_contact_no" type="text"/>
	Nurse's Street:
	<input name="street" type="text"/>
	Nurse's City:
	<input name="city" type="text"/>
	Nurse's State:
	<input name="state" type="text"/>
	Nurse's Zipcode:
	<input name="zipcode" type="text"/>
	Nurse's Level:
	<input name="nurse_level" type="text"/>


```

        boolean auth =
handler.authenticateUser("jdbc:oracle:thin:@//oracle.cs.ou.edu:1521/pdborcl.cs.ou.edu
", session.getAttribute("username").toString(),
session.getAttribute("password").toString(), request.getSession(true));

        if(request.getParameter("insertbutton") != null &&
auth == true)
        {
            rset =
handler.queryTwo(Integer.parseInt(request.getParameter("eid")),
Integer.parseInt(request.getParameter("salary")),
request.getParameter("e_sex"),
request.getParameter("e_name"),
request.getParameter("e_contact_no"),
request.getParameter("street"),
request.getParameter("city"),
request.getParameter("state"),

Integer.parseInt(request.getParameter("zipcode")),

Integer.parseInt(request.getParameter("nurse_level")));

            out.println("<form action='goHomeAction.jsp'
align='center'>");
            out.println("<div
align='center'><p>&nbsp;</p>");
            out.println("<table cellpadding='2'
cellpadding='3' border='1' width='100%'>");
            out.println("<tr>");
            out.println("<th>" + "Nurse's ID" + "</th>");
            out.println("<th>" + "Nurse's Salary" +
"</th>");
            out.println("<th>" + "Nurse's Sex" +
"</th>");
            out.println("<th>" + "Nurse's Name" +
"</th>");
            out.println("<th>" + "Nurse's Contact No." +
"</th>");
            out.println("<th>" + "Nurse's Street" +
"</th>");
            out.println("<th>" + "Nurse's City" +
"</th>");
            out.println("<th>" + "Nurse's State" +
"</th>");
            out.println("<th>" + "Nurse's Zipcode" +
"</th>");
            out.println("<th>" + "Nurse's Level" +
"</th>");
            out.println("</tr>");

            while (rset.next())
            {
                out.println("<tr>");
                out.println("<td align='center'>" +

```

```

align="center"> " +
align="center"> " +
align="center"> " +
align="center"> " +
align="center"> " +
align="center"> " +
align="center"> " +
align="center"> " +
align="center"> " +
align="center"> " +
rset.getInt(1) + "</td><td
rset.getInt(2) + "</td><td
rset.getString(3) + "</td><td
rset.getString(4) + "</td><td
rset.getString(5) + "</td><td
rset.getString(6) + "</td><td
rset.getString(7) + "</td><td
rset.getString(8) + "</td><td
rset.getInt(9) + "</td><td
rset.getInt(10) + "</td>");
out.println("</tr>");
}

out.println("</table>");
out.println("<table cellpadding='3' border='0' width='100%'>");
out.println("<tr>");
out.println("<td><input type='submit'
name='backbutton' value='Home' /></td>");
out.println("</tr>");
out.println("</table>");
out.println("</div></form>");
}
else if(request.getParameter("backbutton") != null)
{
    response.sendRedirect("homePage.jsp");
}

%>
<p>&nbsp;</p>
</div>
</body>
</html>

```

JSP – Query Three/Action:

```

<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1" session="true"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">
<html>
    <head>
        <meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">
        <title>Insert a doctor record</title>
    </head>
    <body>

```



```

name="e_contact_no"/>
</td>
</tr>
<tr>
<td width="38%">
<strong>Doctor's Street:</strong>
</td>
<td width="62%">
<input type="text" name="street"/>
</td>
</tr>
<tr>
<td width="38%">
<strong>Doctor's City:</strong>
</td>
<td width="62%">
<input type="text" name="city"/>
</td>
</tr>
<tr>
<td width="38%">
<strong>Doctor's State:</strong>
</td>
<td width="62%">
<input type="text" name="state"/>
</td>
</tr>
<tr>
<td width="38%">
<strong>Doctor's Zipcode:</strong>
</td>
<td width="62%">
<input type="text" name="zipcode"/>
</td>
</tr>
<tr>
<td width="38%">
<strong>Doctor's
Specialization:</strong>
</td>
<td width="62%">
<input type="text"
name="specialization"/>
</td>
</tr>
<tr>
<td width="38%">
<strong>Doctor's Patient ID:</strong>
</td>
<td width="62%">
<input type="text" name="pid"/>
</td>
</tr>
</table>

```

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```

        <table cellspacing="3" cellpadding="2" border="0">
            <tr>
                <td>
                    <input type="submit"
name="insertbutton" value="Insert Doctor"/>
                </td>
                <td>
                    <input type="submit" name="backbutton"
value="Back"/>
                </td>
            </tr>
        </table>
        <p>
            &nbsp;
        </p>
    </div>
</form>
</body>
</html>

<%@ page import="CS5513.DataHandler"%>
<%@ page import="java.sql.*"%>
<%@ page import="java.util.*"%>
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1" session="true"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">
<html>
    <head>
        <meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">
        <title>Insert a doctor record</title>
    </head>
    <body>
        <h2 align="center">
            CS5513: Emily Black's Homework 2
        </h2>
        <h3 align="center">
            Successfully updated the doctor table.
        </h3>
        <h3 align="center">
            <jsp:useBean id="empsbean" class="CS5513.DataHandler"
scope="session"/>
        </h3>
        <div align="center">
            <p>&nbsp;</p>
            <%
                ResultSet rset;
                CS5513.DataHandler handler = new
CS5513.DataHandler();

                boolean auth =
handler.authenticateUser("jdbc:oracle:thin:@//oracle.cs.ou.edu:1521/pdborcl.cs.ou.edu

```

```

", session.getAttribute("username").toString(),
session.getAttribute("password").toString(), request.getSession(true));

        if(request.getParameter("insertbutton") != null &&
auth == true)
        {
            rset =
handler.queryThree(Integer.parseInt(request.getParameter("eid")),

            Integer.parseInt(request.getParameter("salary")),
            request.getParameter("e_sex"),
            request.getParameter("e_name"),
            request.getParameter("e_contact_no"),
            request.getParameter("street"),
            request.getParameter("city"),
            request.getParameter("state"),

            Integer.parseInt(request.getParameter("zipcode")),
            request.getParameter("specialization"),

            Integer.parseInt(request.getParameter("pid")));

            out.println("<form action='goHomeAction.jsp'
align='center'>");
            out.println("<div
align='center'><p>&nbsp;</p>");
            out.println("<table cellpadding='2'
cellpadding='3' border='1' width='100%'>");
            out.println("<tr>");
            out.println("<th>" + "Doctor's ID" +
            out.println("<th>" + "Doctor's Salary" +
            out.println("<th>" + "Doctor's Sex" +
            out.println("<th>" + "Doctor's Name" +
            out.println("<th>" + "Doctor's Contact No." +
            out.println("<th>" + "Doctor's Street" +
            out.println("<th>" + "Doctor's City" +
            out.println("<th>" + "Doctor's State" +
            out.println("<th>" + "Doctor's Zipcode" +
            out.println("<th>" + "Doctor's
Specialization" + "</th>");
            out.println("</tr>");

            while (rset.next())
            {
                out.println("<tr>");
                out.println("<td align='center'>" +

```

```

align="center"> " +
align="center"> " +
align="center"> " +
align="center"> " +
align="center"> " +
align="center"> " +
align="center"> " +
align="center"> " +
align="center"> " +
align="center"> " +
rset.getInt(1) + "</td><td
rset.getInt(2) + "</td><td
rset.getString(3) + "</td><td
rset.getString(4) + "</td><td
rset.getString(5) + "</td><td
rset.getString(6) + "</td><td
rset.getString(7) + "</td><td
rset.getString(8) + "</td><td
rset.getInt(9) + "</td><td
rset.getString(10) + "</td>");
out.println("</tr>");
}
out.println("</table>");
out.println("<table cellpadding='3' border='0' width='100%'>");
out.println("<tr>");
out.println("<td><input type='submit'
name='backbutton' value='Home' /></td>");
out.println("</tr>");
out.println("</table>");
out.println("</div></form>");
}
else if(request.getParameter("backbutton") != null)
{
    response.sendRedirect("homePage.jsp");
}

%>
<p>&nbsp;</p>
</div>
</body>
</html>

```

JSP – Query Four/Action:

```

<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1" session="true"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">
<html>
    <head>
        <meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">
        <title>Insert a room record</title>
    </head>
    <body>

```



```

        <td>
            <input type="submit" name="backbutton"
value="Back"/>
        </td>
    </tr>
</table>
<p>
    &nbsp;
</p>
</div>
</form>
</body>
</html>

```

```
<%@page import="CS5513.DataHandler"%>
<%@ page import="java.sql.*"%>
<%@ page import="java.util.*"%>
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1" session="true"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">
<html>
    <head>
        <meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">
        <title>Insert a room record</title>
    </head>
    <body>
        <h2 align="center">
            CS5513: Emily Black's Homework 2
        </h2>
        <h3 align="center">
            Successfully updated the room table.
        </h3>
        <h3 align="center">
            <jsp:useBean id="empsbean" class="CS5513.DataHandler"
scope="session"/>
        </h3>
        <div align="center">
            <p>&nbsp;</p>
            <%
                ResultSet rset;
                CS5513.DataHandler handler = new
CS5513.DataHandler();

                boolean auth =
handler.authenticateUser("jdbc:oracle:thin:@//oracle.cs.ou.edu:1521/pdborcl.cs.ou.edu
", session.getAttribute("username").toString(),
session.getAttribute("password").toString(), request.getSession(true));

                if(request.getParameter("insertbutton") != null &&
auth == true)
            %>
            {
                handler.insertRoomRecord(request.getParameter("roomid"),
request.getParameter("roomname"), request.getParameter("roomtype"),
request.getParameter("roomrate"));
            }
        </div>
    </body>
</html>
```

```

                                rset =
handler.queryFour(Integer.parseInt(request.getParameter("room_id")),
                                request.getParameter("room_type"),

                                Integer.parseInt(request.getParameter("pid")),

                                Integer.parseInt(request.getParameter("eid")));

                                out.println("<form action='goHomeAction.jsp'
align='center'>");
                                out.println("<div
align='center'><p>&nbsp;</p>");
                                out.println("<table cellpadding='2'
cellpadding='3' border='1' width='100%'>");
                                out.println("<tr>");
                                out.println("<th>" + "Room ID" + "</th>");
                                out.println("<th>" + "Room Type" + "</th>");
                                out.println("</tr>");

                                while (rset.next())
                                {
                                    out.println("<tr>");
                                    out.println("<td align='center'>" +
align="center\ "> " +
                                    rset.getInt(1) + "</td><td
                                    rset.getString(2) + "</td>");
                                    out.println("</tr>");
                                }

                                out.println("</table>");
                                out.println("<table cellpadding='2'
cellpadding='3' border='0' width='100%'>");
                                out.println("<tr>");
                                out.println("<td><input type='submit'
name='backbutton' value='Home' /></td>");
                                out.println("</tr>");
                                out.println("</table>");
                                out.println("</div></form>");
                                }
                                else if(request.getParameter("backbutton") != null)
                                {
                                    response.sendRedirect("homePage.jsp");
                                }
                                %>
                                <p>&nbsp;</p>
                                </div>
                                </body>
                                </html>

```

JSP – Query Five/Action:

```

<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1" session="true"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">

```

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```
<html>
  <head>
    <meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">
    <title>Insert a medicine record</title>
  </head>
  <body>
    <h2 align="center">
      CS5513: Emily Black's Homework 2
    </h2>
    <h3 align="center">
      Insert the complete information for a medicine and associate it
with a patient.
    </h3>
    <h3 align="center">
      <jsp:useBean id="empsbean" class="CS5513.DataHandler"
scope="session"/>
    </h3>
    <form action="queryFiveAction.jsp">
      <div align="center">
        <p>&nbsp;</p>
        <table cellspacing="2" cellpadding="3" border="1"
width="369">
          <tr>
            <td width="38%">
              <strong>Medicine's Code:</strong>
            </td>
            <td width="62%">
              <input type="text" name="code"/>
            </td>
          </tr>
          <tr>
            <td width="38%">
              <strong>Medicine's Name:</strong>
            </td>
            <td width="62%">
              <input type="text"
name="medicine_name"/>
            </td>
          </tr>
          <tr>
            <td width="38%">
              <strong>Patient's ID:</strong>
            </td>
            <td width="62%">
              <input type="text" name="pid"/>
            </td>
          </tr>
          <tr>
            <td width="38%">
              <strong>Patient's Quantity:</strong>
            </td>
            <td width="62%">
              <input type="text" name="quantity"/>
            </td>
          </tr>
        </table>
      </div>
    </form>
  </body>
</html>
```



```

", session.getAttribute("username").toString(),
session.getAttribute("password").toString(), request.getSession(true));

        if(request.getParameter("insertbutton") != null &&
auth == true)
        {
            rset =
handler.queryFive(Integer.parseInt(request.getParameter("code")),
                    request.getParameter("medicine_name"),

                    Integer.parseInt(request.getParameter("pid")),
                    request.getParameter("quantity"));

            out.println("<form action='goHomeAction.jsp'
align='center'>");
            out.println("<div
align='center'><p>&nbsp;</p>");
            out.println("<table cellpadding='2'
cellpadding='3' border='1' width='100%'>");
            out.println("<tr>");
            out.println("<th>" + "Medicine Code" +
            out.println("<th>" + "Medicine Name" +
            out.println("</tr>");

            while (rset.next())
            {
                out.println("<tr>");
                out.println("<td align=\"center\">" +
rset.getInt(1) + "</td><td
align=\"center\">" +
                rset.getString(2) + "</td>");
                out.println("</tr>");
            }

            out.println("</table>");
            out.println("<table cellpadding='2'
cellpadding='3' border='0' width='100%'>");
            out.println("<tr>");
            out.println("<td><input type='submit'
name='backbutton' value='Home' /></td>");
            out.println("</tr>");
            out.println("</table>");
            out.println("</div></form>");
        }
        else if(request.getParameter("backbutton") != null)
        {
            response.sendRedirect("homePage.jsp");
        }
    }
    %>
    <p>&nbsp;</p>
    </div>
    </body>
</html>

```

JSP – Query Six/Action:

```

<%@page import="java.sql.ResultSet"%>
<%@page import="CS5513.DataHandler"%>
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1" session="true"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">
<html>
    <head>
        <head>
            <meta http-equiv="Content-Type" content="text/html;
charset=windows-1252"/>
            <title>Patients</title>
        </head>
        <body>
            <h2 align="center">
                CS5513 Web Application
            </h2>
            <h3 align="center">
                All the patients who were in the hospital during a particular
month of a particular year (e.g. during July of 2017).
            </h3>
            <h3 align="center">
                <jsp:useBean id="empsbean" class="CS5513.DataHandler"
scope="session"/>
            </h3>
            <form action="querySixAction.jsp">
                <div align="center">
                    <p>&nbsp;</p>
                    <table cellspacing="2" cellpadding="3" border="1"
width="369">
                        <tr>
                            <td width="38%">
                                <strong>Month:</strong>
                            </td>
                            <td width="62%">
                                <input type="text" name="month"/>
                            </td>
                        </tr>
                        <tr>
                            <td width="38%">
                                <strong>Year:</strong>
                            </td>
                            <td width="62%">
                                <input type="text" name="year"/>
                            </td>
                        </tr>
                    </table>
                    <table cellspacing="3" cellpadding="2" border="0">
                        <tr>
                            <td>
                                <input type="submit"
name="insertbutton" value="Find Patient(s)"/>
                            </td>

```

```

                                <td>
                                <input type="submit" name="backbutton"
value="Back"/>
                                </td>
                            </tr>
                        </table>
                        <p>
                            &nbsp;
                        </p>
                    </div>
                </form>
            </body>
        </html>

<%@page import="CS5513.DataHandler"%>
<%@ page import="java.sql.*"%>
<%@ page import="java.util.*"%>
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1" session="true"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">
<html>
    <head>
        <meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">
        <title>Queried for patient(s)</title>
    </head>
    <body>
        <h2 align="center">
            CS5513: Emily Black's Homework 2
        </h2>
        <h3 align="center">
            Successfully queried for patients who were in the hospital given
a certain time period.
        </h3>
        <h3 align="center">
            <jsp:useBean id="empsbean" class="CS5513.DataHandler"
scope="session"/>
        </h3>
        <div align="center">
            <p>&nbsp;</p>
            <%
                ResultSet rset;
                CS5513.DataHandler handler = new
CS5513.DataHandler();

                boolean auth =
handler.authenticateUser("jdbc:oracle:thin:@//oracle.cs.ou.edu:1521/pdborcl.cs.ou.edu
", session.getAttribute("username").toString(),
session.getAttribute("password").toString(), request.getSession(true));

                if(request.getParameter("insertbutton") != null &&
auth == true)
            {

```

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```
request.getParameter("month");

pressed

handler.querySix(Integer.parseInt(request.getParameter("month")),
Integer.parseInt(request.getParameter("year")));

//when the page is first loaded, there is no
info in the filter box and //the query is null since no info submission, then display
all patients.

align='center'>");
align='center'><p>&nbsp;</p>");
cellpadding='3' border='1' width='100%'>");
Date" + "</th>");
Date" + "</th>");
"</th>");
"</th>");
"</th>");
Date" + "</th>");
Date" + "</th>");
"</th>");

out.println("<form action='goHomeAction.jsp'
out.println("<div
out.println("<table cellpadding='2'
out.println("<tr>");
out.println("<th>" + "Patient's ID" +
out.println("<th>" + "Patient's Name" +
out.println("<th>" + "Patient's Sex" +
out.println("<th>" + "Patient's Address" +
out.println("<th>" + "Patient's Discharged
out.println("<th>" + "Patient's Admitted
out.println("<th>" + "Patient's Contacts" +
out.println("</tr>");

while (rset.next())
{
    Array a = rset.getArray(11);
    String[] result =

    out.println("<tr>");
    out.println("<td align=\"center\">" +
    rset.getInt(1) + "</td><td

align=\"center\"> " +
```



```

                                rset.getString(2) + "</td><td
align=\"center\"> " +
                                rset.getString(3) + "</td><td
align=\"center\"> " +
                                rset.getString(4) + "</td><td
                                rset.getObject(6) + "/" +
rset.getObject(5) + "/" + rset.getObject(7) + "</td><td align=\"center\"> " +
                                rset.getObject(9) + "/" +
rset.getObject(8) + "/" + rset.getObject(10) + "</td><td align=\"center\"> " +
                                Arrays.toString(result) + "</td>";
                                out.println("</tr>");
                                }

                                out.println("</table>");
                                out.println("<table cellpadding='3' border='0' width='100%'>");
                                out.println("<tr>");
                                out.println("<td><input type='submit'
name='backbutton' value='Home' /></td>");
                                out.println("</tr>");
                                out.println("</table>");
                                out.println("</div></form>");

                                }
                                else if(request.getParameter("backbutton") != null)
                                {
                                    response.sendRedirect("homePage.jsp");
                                }
                                %>
                                <p>&nbsp;</p>
                                </div>
                                </body>
                                </html>

```

JSP – Query Seven/Action:

```

<%@page import="java.sql.ResultSet"%>
<%@page import="CS5513.DataHandler"%>
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1" session="true"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">
<html>
    <head>
        <head>
            <meta http-equiv="Content-Type" content="text/html;
charset=windows-1252"/>
            <title>Doctors</title>
        </head>
        <body>
            <h2 align="center">
                CS5513 Web Application
            </h2>
            <h3 align="center">

```


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```
<h2 align="center">
    CS5513: Emily Black's Homework 2
</h2>
<h3 align="center">
    Successfully queried for all doctors who care for more than N
patients.
</h3>
<h3 align="center">
    <jsp:useBean id="empsbean" class="CS5513.DataHandler"
scope="session"/>
</h3>
<div align="center">
    <p>&nbsp;</p>
    <%
        ResultSet rset;
        CS5513.DataHandler handler = new
CS5513.DataHandler();

        boolean auth =
handler.authenticateUser("jdbc:oracle:thin:@//oracle.cs.ou.edu:1521/pdborcl.cs.ou.edu
", session.getAttribute("username").toString(),
session.getAttribute("password").toString(), request.getSession(true));

        if(request.getParameter("insertbutton") != null &&
auth == true)
        {
            String query1 =
request.getParameter("n_patients");

            //when non-null fields and submit button is
pressed
            if (query1 != "")
            {
                rset =
handler.querySeven(Integer.parseInt(query1));
            }

            //when the page is first loaded, there is no
info in the filter box and //the query is null since no info submission, then display
all doctors.
            else
            {
                rset = handler.querySeven(-1);
            }

            out.println("<form action='goHomeAction.jsp'
align='center'>");
            out.println("<div
align='center'><p>&nbsp;</p>");
            out.println("<table cellpadding='3' border='1' width='100%'>");
            out.println("<tr>");
            out.println("<th>" + "Doctor's ID" +
"</th>");
```

```

"</th>");
"</th>");
"</th>");
"</th>");
"</th>");
"</th>");
"</th>");
Specialization" + "</th>");

```

```

align="center"> " +
align="center"> " +
align="center"> " +
align="center"> " +
align="center"> " +
align="center"> " +
align="center"> " +
align="center"> " +
align="center"> " +

```

```

cellpadding='3' border='0' width='100%'>");

```

```

name='backbutton' value='Home'/></td>");

```

```

out.println("<th>" + "Doctor's Salary" +
out.println("<th>" + "Doctor's Sex" +
out.println("<th>" + "Doctor's Name" +
out.println("<th>" + "Doctor's Contact No." +
out.println("<th>" + "Doctor's Street" +
out.println("<th>" + "Doctor's City" +
out.println("<th>" + "Doctor's State" +
out.println("<th>" + "Doctor's Zipcode" +
out.println("<th>" + "Doctor's
out.println("</tr>");

```

```

while (rset.next())
{
    out.println("<tr>");
    out.println("<td align='center'>" +
        rset.getInt(1) + "</td><td
        rset.getInt(2) + "</td><td
        rset.getString(3) + "</td><td
        rset.getString(4) + "</td><td
        rset.getString(5) + "</td><td
        rset.getString(6) + "</td><td
        rset.getString(7) + "</td><td
        rset.getString(8) + "</td><td
        rset.getInt(9) + "</td><td
        rset.getString(10) + "</td>");
    out.println("</tr>");
}

```

```

out.println("</table>");
out.println("<table cellpadding='2'
out.println("<tr>");
out.println("<td><input type='submit'
out.println("</tr>");
out.println("</table>");
out.println("</div></form>");

```

```

    }
    else if(request.getParameter("backbutton") != null)
    {
        response.sendRedirect("homePage.jsp");
    }
    %>
    <p>&nbsp;</p>
</div>
</body>
</html>

```

JSP – Query Eight/Action:

```

<%@page import="java.sql.ResultSet"%>
<%@page import="CS5513.DataHandler"%>
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1" session="true"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">
<html>
    <head>
        <head>
            <meta http-equiv="Content-Type" content="text/html;
charset=windows-1252"/>
            <title>Nurses</title>
        </head>
        <body>
            <h2 align="center">
                CS5513 Web Application
            </h2>
            <h3 align="center">
                All nurses who tend to patients that are given a certain
medicine.
            </h3>
            <h3 align="center">
                <jsp:useBean id="empsbean" class="CS5513.DataHandler"
scope="session"/>
            </h3>
            <form action="queryEightAction.jsp">
                <div align="center">
                    <p>&nbsp;</p>
                    <table cellpadding="3" cellspacing="2" border="1"
width="369">
                        <tr>
                            <td width="38%">
                                <strong>Medicine's Code:</strong>
                            </td>
                            <td width="62%">
                                <input type="text" name="code"/>
                            </td>
                        </tr>
                    </table>
                    <table cellpadding="2" cellspacing="3" border="0">
                        <tr>
                            <td>

```

Homework 2 – Emily Black – 03/26/18

```

name="insertbutton" value="Find Nurse(s)"/>
                                <input type="submit"
                                </td>
                                <td>
                                <input type="submit" name="backbutton"
value="Back"/>
                                </td>
                                </tr>
                                </table>
                                <p>
                                &nbsp;
                                </p>
                                </div>
                                </form>
                                </body>
                                </html>

<%@page import="CS5513.DataHandler"%>
<%@ page import="java.sql.*"%>
<%@ page import="java.util.*"%>
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1" session="true"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">
<html>
    <head>
        <meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">
        <title>Queried for nurse(s)</title>
    </head>
    <body>
        <h2 align="center">
            CS5513: Emily Black's Homework 2
        </h2>
        <h3 align="center">
            Successfully queried for all nurses who tend to patients that are
given a certain medicine.
        </h3>
        <h3 align="center">
            <jsp:useBean id="empsbean" class="CS5513.DataHandler"
scope="session"/>
        </h3>
        <div align="center">
            <p>&nbsp;</p>
            <%
                ResultSet rset;
                CS5513.DataHandler handler = new
CS5513.DataHandler();

                boolean auth =
handler.authenticateUser("jdbc:oracle:thin:@//oracle.cs.ou.edu:1521/pdborcl.cs.ou.edu
", session.getAttribute("username").toString(),
session.getAttribute("password").toString(), request.getSession(true));

```

```

        if(request.getParameter("insertbutton") != null &&
auth == true)
        {
            rset =
handler.queryEight(Integer.parseInt(request.getParameter("code")));

            out.println("<form action='goHomeAction.jsp'
align='center'>");
            out.println("<div
align='center'><p>&nbsp;</p>");
            out.println("<table cellpadding='3' border='1' width='100%'>");
            out.println("<tr>");
            out.println("<th>" + "Nurse's ID" + "</th>");
            out.println("<th>" + "Nurse's Salary" +
"</th>");
            out.println("<th>" + "Nurse's Sex" +
"</th>");
            out.println("<th>" + "Nurse's Name" +
"</th>");
            out.println("<th>" + "Nurse's Contact No." +
"</th>");
            out.println("<th>" + "Nurse's Street" +
"</th>");
            out.println("<th>" + "Nurse's City" +
"</th>");
            out.println("<th>" + "Nurse's State" +
"</th>");
            out.println("<th>" + "Nurse's Zipcode" +
"</th>");
            out.println("<th>" + "Nurse's Level" +
"</th>");
            out.println("</tr>");

            while (rset.next())
            {
                out.println("<tr>");
                out.println("<td align=\"center\">" +
rset.getInt(1) + "</td><td
align=\"center\">" +
rset.getInt(2) + "</td><td
align=\"center\">" +
rset.getString(3) + "</td><td
align=\"center\">" +
rset.getString(4) + "</td><td
align=\"center\">" +
rset.getString(5) + "</td><td
align=\"center\">" +
rset.getString(6) + "</td><td
align=\"center\">" +
rset.getString(7) + "</td><td
align=\"center\">" +
rset.getString(8) + "</td><td

```

```

                                rset.getInt(9) + "</td><td>
align=\"center\"> " +
                                rset.getInt(10) + "</td>");
                                out.println("</tr>");
                                }
                                out.println("</table>");
                                out.println("<table cellpadding='2'
cellpadding='3' border='0' width='100%'>");
                                out.println("<tr>");
                                out.println("<td><input type='submit'
name='backbutton' value='Home'/></td>");
                                out.println("</tr>");
                                out.println("</table>");
                                out.println("</div></form>");
                                }
                                else if(request.getParameter("backbutton") != null)
                                {
                                    response.sendRedirect("homePage.jsp");
                                }
                                %>
                                <p>&nbsp;</p>
                                </div>
                                </body>
                                </html>

```

JSP – Query Nine/Action:

```

<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1" session="true"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">
<html>
    <head>
        <meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">
        <title>Delete a patient record</title>
    </head>
    <body>
        <h2 align="center">
            CS5513: Emily Black's Homework 2
        </h2>
        <h3 align="center">
            Delete all the patients who were discharged before a particular
year.
        </h3>
        <h3 align="center">
            <jsp:useBean id="empsbean" class="CS5513.DataHandler"
scope="session"/>
        </h3>
        <form action="queryNineAction.jsp">
            <div align="center">
                <p>&nbsp;</p>
                <table cellpadding="2" cellspacing="3" border="1"
width="369">
                    <tr>

```



```

        <td width="38%">
            <strong>Input Year:</strong>
        </td>
        <td width="62%">
            <input type="text" name="year"/>
        </td>
    </tr>
</table>
<table cellspacing="3" cellpadding="2" border="0">
    <tr>
        <td>
            <input type="submit"
name="deletebutton" value="Delete Patient(s)"/>
        </td>
        <td>
            <input type="submit" name="backbutton"
value="Back"/>
        </td>
    </tr>
</table>
<p>
    &nbsp;
</p>
</div>
</form>
</body>
</html>

<%@page import="CS5513.DataHandler"%>
<%@ page import="java.sql.*"%>
<%@ page import="java.util.*"%>
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1" session="true"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">
<html>
    <head>
        <meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">
        <title>Queried for patients(s)</title>
    </head>
    <body>
        <h2 align="center">
            CS5513: Emily Black's Homework 2
        </h2>
        <h3 align="center">
            Successfully deleted all patients who were discharged before a
particular year.
        </h3>
        <h3 align="center">
            <jsp:useBean id="empsbean" class="CS5513.DataHandler"
scope="session"/>
        </h3>
        <div align="center">

```

```

        <p>&nbsp;</p>
        <%
            ResultSet rset;
            CS5513.DataHandler handler = new
CS5513.DataHandler();

            boolean auth =
handler.authenticateUser("jdbc:oracle:thin:@//oracle.cs.ou.edu:1521/pdborcl.cs.ou.edu
", session.getAttribute("username").toString(),
session.getAttribute("password").toString(), request.getSession(true));

            if(request.getParameter("deletebutton") != null &&
auth == true)
            {
                rset =
handler.queryNine(Integer.parseInt(request.getParameter("year")));

                out.println("<form action='goHomeAction.jsp'
align='center'>");
                out.println("<div
align='center'><p>&nbsp;</p>");
                out.println("<table cellpadding='2'
cellpadding='3' border='1' width='100%'>");
                out.println("<tr>");
                out.println("<th>" + "Patient's ID" +
                out.println("<th>" + "Patient's Name" +
                out.println("<th>" + "Patient's Sex" +
                out.println("<th>" + "Patient's Address" +
                out.println("<th>" + "Patient's Discharged
                out.println("<th>" + "Patient's Admitted
                out.println("<th>" + "Patient's Contacts" +
                out.println("</tr>");

                while (rset.next())
                {
                    Array a = rset.getArray(11);
                    String[] result =

                    out.println("<tr>");
                    out.println("<td align=\"center\">" +
                        rset.getInt(1) + "</td><td
                        rset.getString(2) + "</td><td
                        rset.getString(3) + "</td><td
                    (String[])a.getArray();

                    align=\"center\"> " +
                    align=\"center\"> " +
                    align=\"center\"> " +

```

```

                                rset.getString(4) + "</td><td
align=\"center\"> " +
                                rset.getObject(6) + "/" +
rset.getObject(5) + "/" + rset.getObject(7) + "</td><td align=\"center\"> " +
                                rset.getObject(9) + "/" +
rset.getObject(8) + "/" + rset.getObject(10) + "</td><td align=\"center\"> " +
                                Arrays.toString(result) + "</td>";
                                out.println("</tr>");
                                }
                                out.println("</table>");
                                out.println("<table cellpadding='3' border='0' width='100%'>");
                                out.println("<tr>");
                                out.println("<td><input type='submit'
name='backbutton' value='Home' /></td>");
                                out.println("</tr>");
                                out.println("</table>");
                                out.println("</div></form>");
                                }
                                else if(request.getParameter("backbutton") != null)
                                {
                                    response.sendRedirect("homePage.jsp");
                                }
                                %>
                                <p>&nbsp;</p>
                                </div>
                                </body>
                                </html>

```

JSP – Query Ten/Action:

```

<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1" session="true"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">
<html>
    <head>
        <meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">
        <title>Delete a patient record</title>
    </head>
    <body>
        <h2 align="center">
            CS5513: Emily Black's Homework 2
        </h2>
        <h3 align="center">
            Delete all the patients who have not been assigned a room.
        </h3>
        <h3 align="center">
            <jsp:useBean id="empsbean" class="CS5513.DataHandler"
scope="session"/>
        </h3>
        <form action="queryTenAction.jsp">
            <div align="center">
                <p>&nbsp;</p>

```

Homework 2 – Emily Black – 03/26/18

```

        <table cellspacing="3" cellpadding="2" border="0">
            <tr>
                <td>
                    <input type="submit"
name="deletebutton" value="Delete Patient(s)"/>
                </td>
                <td>
                    <input type="submit" name="backbutton"
value="Back"/>
                </td>
            </tr>
        </table>
        <p>
            &nbsp;
        </p>
    </div>
</form>
</body>
</html>

<%@page import="CS5513.DataHandler"%>
<%@ page import="java.sql.*"%>
<%@ page import="java.util.*"%>
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1" session="true"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">
<html>
    <head>
        <meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">
        <title>Queried for patients(s)</title>
    </head>
    <body>
        <h2 align="center">
            CS5513: Emily Black's Homework 2
        </h2>
        <h3 align="center">
            Successfully deleted all patients who have not been assigned a
room.
        </h3>
        <h3 align="center">
            <jsp:useBean id="empsbean" class="CS5513.DataHandler"
scope="session"/>
        </h3>
        <div align="center">
            <p>&nbsp;</p>
            <%
                ResultSet rset;
                CS5513.DataHandler handler = new
CS5513.DataHandler();

                boolean auth =
handler.authenticateUser("jdbc:oracle:thin:@//oracle.cs.ou.edu:1521/pdborcl.cs.ou.edu

```

```

", session.getAttribute("username").toString(),
session.getAttribute("password").toString(), request.getSession(true));

        if(request.getParameter("deletebutton") != null &&
auth == true)
        {
            rset = handler.queryTen();

            out.println("<form action='goHomeAction.jsp'
align='center'>");
            out.println("<div
align='center'><p>&nbsp;</p>");
            out.println("<table cellpadding='3' border='1' width='100%'>");
            out.println("<tr>");
            out.println("<th>" + "Patient's ID" +
            out.println("<th>" + "Patient's Name" +
            out.println("<th>" + "Patient's Sex" +
            out.println("<th>" + "Patient's Address" +
            out.println("<th>" + "Patient's Discharged
            out.println("<th>" + "Patient's Admitted
            out.println("<th>" + "Patient's Contacts" +
            out.println("</tr>");

            while (rset.next())
            {
                Array a = rset.getArray(11);
                String[] result =

                out.println("<tr>");
                out.println("<td align=\"center\">" +
                rset.getInt(1) + "</td><td
                rset.getString(2) + "</td><td
                rset.getString(3) + "</td><td
                rset.getString(4) + "</td><td
                rset.getObject(6) + "/" +
                rset.getObject(5) + "/" + rset.getObject(7) + "</td><td align=\"center\">" +
                rset.getObject(9) + "/" +
                rset.getObject(8) + "/" + rset.getObject(10) + "</td><td align=\"center\">" +
                Arrays.toString(result) + "</td>");
                out.println("</tr>");
            }

```

```

                                out.println("</table>");
                                out.println("<table cellpadding='2'
cellpadding='3' border='0' width='100%'>");
                                out.println("<tr>");
                                out.println("<td><input type='submit'
name='backbutton' value='Home' /></td>");
                                out.println("</tr>");
                                out.println("</table>");
                                out.println("</div></form>");
                                }
                                else if(request.getParameter("backbutton") != null)
                                {
                                    response.sendRedirect("homePage.jsp");
                                }
                                %>
                                <p>&nbsp;</p>
                                </div>
                                </body>
                                </html>
```

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Login/Home page:



CS5513: Emily Black's Homework 2

Login with your Oracle credentials.

Username: jblack5795
Password: *****



CS5513: Emily Black's Homework 2

Query 1:	<input type="button" value="Go To"/>
Query 2:	<input type="button" value="Go To"/>
Query 3:	<input type="button" value="Go To"/>
Query 4:	<input type="button" value="Go To"/>
Query 5:	<input type="button" value="Go To"/>
Query 6:	<input type="button" value="Go To"/>
Query 7:	<input type="button" value="Go To"/>
Query 8:	<input type="button" value="Go To"/>
Query 9:	<input type="button" value="Go To"/>
Query 10:	<input type="button" value="Go To"/>

Homework 2 – Emily Black – 03/26/18

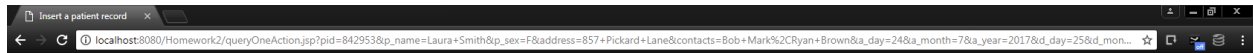
Query 1 (5 tests):



CS5513: Emily Black's Homework 2

Insert the complete information for a patient.

Patient's ID:	842953
Patient's Name:	Laura Smith
Patient's Sex:	F
Patient's Address:	857 Pickard Lane
Patient's Contacts (separate by commas):	Bob Mark,Ryan Brown
Patient's Day Admitted:	24
Patient's Month Admitted:	7
Patient's Year Admitted:	2017
Patient's Day Discharged:	25
Patient's Month Discharged:	4
Patient's Year Discharged:	2018



CS5513: Emily Black's Homework 2

Successfully updated the patient table.

Patient's ID	Patient's Name	Patient's Sex	Patient's Address	Patient's Discharged Date	Patient's Admitted Date	Patient's Contacts
842953	Laura Smith	F	857 Pickard Lane	4/25/2018	7/24/2017	[Bob Mark, Ryan Brown]

[Home](#)

Homework 2 – Emily Black – 03/26/18

Insert a patient record

localhost8080/Homework2/queryOne.jsp

CS5513: Emily Black's Homework 2

Insert the complete information for a patient.

Patient's ID:	948274
Patient's Name:	Ken Brown
Patient's Sex:	M
Patient's Address:	87 Blue St.
Patient's Contacts (separate by commas):	Jenna Brown,Laurie Smith
Patient's Day Admitted:	12
Patient's Month Admitted:	3
Patient's Year Admitted:	2012
Patient's Day Discharged:	16
Patient's Month Discharged:	7
Patient's Year Discharged:	2013

Insert PatientBack

Insert a patient record

localhost8080/Homework2/queryOneAction.jsp?pid=948274&p_name=Ken+Brown&p_sex=M&address=87+Blue+St.&contacts=Jenna+Brown%2CLaurie+Smith&a_day=12&a_month=3&a_year=2012&d_day=16&d_month=7&d_year=2013

CS5513: Emily Black's Homework 2

Successfully updated the patient table.

Patient's ID	Patient's Name	Patient's Sex	Patient's Address	Patient's Discharged Date	Patient's Admitted Date	Patient's Contacts
948274	Ken Brown	M	87 Blue St.	7/16/2013	3/12/2012	[Jenna Brown, Laurie Smith]
842953	Laura Smith	F	857 Pickard Lane	4/25/2018	7/24/2017	[Bob Mark, Ryan Brown]

Home

Homework 2 – Emily Black – 03/26/18



CS5513: Emily Black's Homework 2

Insert the complete information for a patient.

Patient's ID:	592832
Patient's Name:	Sam Smith
Patient's Sex:	M
Patient's Address:	84 Village Ln.
Patient's Contacts (separate by commas):	Yennifer L,Rosa Red
Patient's Day Admitted:	12
Patient's Month Admitted:	7
Patient's Year Admitted:	2001
Patient's Day Discharged:	13
Patient's Month Discharged:	7
Patient's Year Discharged:	2002

Insert Patient

Back



CS5513: Emily Black's Homework 2

Successfully updated the patient table.

Patient's ID	Patient's Name	Patient's Sex	Patient's Address	Patient's Discharged Date	Patient's Admitted Date	Patient's Contacts
948274	Ken Brown	M	87 Blue St.	7/16/2013	3/12/2012	[Jenna Brown, Laurie Smith]
842953	Laura Smith	F	857 Pickard Lane	4/25/2018	7/24/2017	[Bob Mark, Ryan Brown]
592832	Sam Smith	M	84 Village Ln.	7/13/2002	7/12/2001	[Yennifer L, Rosa Red]

[Home](#)

Homework 2 – Emily Black – 03/26/18

Insert a patient record

localhost:8080/Homework2/queryOne.jsp

CS5513: Emily Black's Homework 2

Insert the complete information for a patient.

Patient's ID:	257482
Patient's Name:	Jessica Hernd
Patient's Sex:	F
Patient's Address:	1 Gray Dr.
Patient's Contacts (separate by commas):	John Hernd,Sophie Hernd
Patient's Day Admitted:	25
Patient's Month Admitted:	2
Patient's Year Admitted:	2001
Patient's Day Discharged:	16
Patient's Month Discharged:	7
Patient's Year Discharged:	2013

Insert PatientBack

Insert a patient record

localhost:8080/Homework2/queryOneAction.jsp?pid=257482&p_name=Jessica+Hernd&p_sex=F&address=1+Gray+Dr.&contacts=John+Hernd%2CSophie+Hernd&a_day=25&a_month=2&a_year=2001&d_day=16&d_month=7&d_year=2013

CS5513: Emily Black's Homework 2

Successfully updated the patient table.

Patient's ID	Patient's Name	Patient's Sex	Patient's Address	Patient's Discharged Date	Patient's Admitted Date	Patient's Contacts
257482	Jessica Hernd	F	1 Gray Dr.	7/16/2013	2/25/2001	[John Hernd, Sophie Hernd]
948274	Ken Brown	M	87 Blue St.	7/16/2013	3/12/2012	[Jenna Brown, Laurie Smith]
842953	Laura Smith	F	857 Pickard Lane	4/25/2018	7/24/2017	[Bob Mark, Ryan Brown]
592832	Sam Smith	M	84 Village Ln.	7/13/2002	7/12/2001	[Yennifer L, Rosa Red]

Home

Homework 2 – Emily Black – 03/26/18

Insert a patient record

localhost8080/Homework2/queryOne.jsp

CS5513: Emily Black's Homework 2

Insert the complete information for a patient.

Patient's ID:	382751
Patient's Name:	Emily Black
Patient's Sex:	F
Patient's Address:	1804 Marian Dr.
Patient's Contacts (separate by commas):	C Black,N Black
Patient's Day Admitted:	18
Patient's Month Admitted:	12
Patient's Year Admitted:	2014
Patient's Day Discharged:	15
Patient's Month Discharged:	3
Patient's Year Discharged:	2018

Insert PatientBack

Insert a patient record

localhost8080/Homework2/queryOneAction.jsp?pid=382751&p_name=Emily+Black&p_sex=F&address=1804+Marian+Dr.&contacts=C+Black%2CN+Black&a_day=18&a_month=12&a_year=2014&d_day=15&d_month=3&d_year=2018

CS5513: Emily Black's Homework 2

Successfully updated the patient table.

Patient's ID	Patient's Name	Patient's Sex	Patient's Address	Patient's Discharged Date	Patient's Admitted Date	Patient's Contacts
257482	Jessica Hernd	F	1 Gray Dr.	7/16/2013	2/25/2001	[John Hernd, Sophie Hernd]
948274	Ken Brown	M	87 Blue St.	7/16/2013	3/12/2012	[Jenna Brown, Laurie Smith]
842953	Laura Smith	F	857 Pickard Lane	4/25/2018	7/24/2017	[Bob Mark, Ryan Brown]
592832	Sam Smith	M	84 Village Ln.	7/13/2002	7/12/2001	[Yennifer L, Rosa Red]
382751	Emily Black	F	1804 Marian Dr.	3/15/2018	12/18/2014	[C Black, N Black]

Home

Query 2 (5 tests):

Insert a nurse record

localhost:8080/Homework2/queryTwo.jsp

CS5513: Emily Black's Homework 2

Insert the complete information for a nurse.

Nurse's Employee ID:	111111
Nurse's Salary:	98000
Nurse's Sex:	M
Nurse's Name:	John Black
Nurse's Contact Number:	4056738843
Nurse's Street:	857 Pickard Lane
Nurse's City:	Norman
Nurse's State:	Oklahoma
Nurse's Zipcode:	73069
Nurse's Level:	12

Insert NurseBack

Insert a nurse record

localhost:8080/Homework2/queryTwoAction.jsp?eid=111111&salary=98000&e_sex=M&e_name=John+Black&e_contact_no=4056738843&street=857+Pickard+Lane&city=Norman&state=Oklahoma&zipcode=73069&nurse_...

CS5513: Emily Black's Homework 2

Successfully updated the nurse table.

Nurse's ID	Nurse's Salary	Nurse's Sex	Nurse's Name	Nurse's Contact No.	Nurse's Street	Nurse's City	Nurse's State	Nurse's Zipcode	Nurse's Level
111111	98000	M	John Black	4056738843	857 Pickard Lane	Norman	Oklahoma	73069	12

Home

Homework 2 – Emily Black – 03/26/18



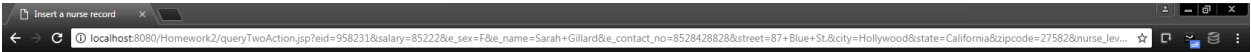
CS5513: Emily Black's Homework 2

Insert the complete information for a nurse.

Nurse's Employee ID:	958231
Nurse's Salary:	85222
Nurse's Sex:	F
Nurse's Name:	Sarah Gillard
Nurse's Contact Number:	8528428828
Nurse's Street:	87 Blue St.
Nurse's City:	Hollywood
Nurse's State:	California
Nurse's Zipcode:	27582
Nurse's Level:	2

Insert Nurse

Back



CS5513: Emily Black's Homework 2

Successfully updated the nurse table.

Nurse's ID	Nurse's Salary	Nurse's Sex	Nurse's Name	Nurse's Contact No.	Nurse's Street	Nurse's City	Nurse's State	Nurse's Zipcode	Nurse's Level
111111	98000	M	John Black	4056738843	857 Pickard Lane	Norman	Oklahoma	73069	12
958231	85222	F	Sarah Gillard	8528428828	87 Blue St.	Hollywood	California	27582	2

Home

Homework 2 – Emily Black – 03/26/18



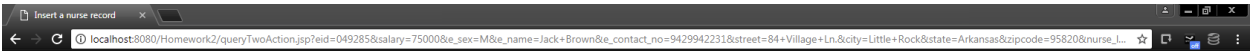
CS5513: Emily Black's Homework 2

Insert the complete information for a nurse.

Nurse's Employee ID:	049285
Nurse's Salary:	75000
Nurse's Sex:	M
Nurse's Name:	Jack Brown
Nurse's Contact Number:	9429942231
Nurse's Street:	84 Village Ln.
Nurse's City:	Little Rock
Nurse's State:	Arkansas
Nurse's Zipcode:	95820
Nurse's Level:	12

Insert Nurse

Back



CS5513: Emily Black's Homework 2

Successfully updated the nurse table.

Nurse's ID	Nurse's Salary	Nurse's Sex	Nurse's Name	Nurse's Contact No.	Nurse's Street	Nurse's City	Nurse's State	Nurse's Zipcode	Nurse's Level
111111	98000	M	John Black	4056738843	857 Pickard Lane	Norman	Oklahoma	73069	12
49285	75000	M	Jack Brown	9429942231	84 Village Ln.	Little Rock	Arkansas	95820	12
958231	85222	F	Sarah Gillard	8528428828	87 Blue St.	Hollywood	California	27582	2

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Insert a nurse record

localhost:8080/Homework2/queryTwo.jsp

CS5513: Emily Black's Homework 2

Insert the complete information for a nurse.

Nurse's Employee ID:	490021
Nurse's Salary:	104222
Nurse's Sex:	M
Nurse's Name:	Harrison Ford
Nurse's Contact Number:	4421452212
Nurse's Street:	1 Gray Dr.
Nurse's City:	Detroit
Nurse's State:	Michigan
Nurse's Zipcode:	85723
Nurse's Level:	17

Insert NurseBack

Insert a nurse record

localhost:8080/Homework2/queryTwoAction.jsp?id=490021&salary=104222&sex=M&name=Harrison+Ford&contact_no=4421452212&street=1+Gray+Dr.&city=Detroit&state=Michigan&zipcode=85723&nurse_level...

CS5513: Emily Black's Homework 2

Successfully updated the nurse table.

Nurse's ID	Nurse's Salary	Nurse's Sex	Nurse's Name	Nurse's Contact No.	Nurse's Street	Nurse's City	Nurse's State	Nurse's Zipcode	Nurse's Level
111111	98000	M	John Black	4056738843	857 Pickard Lane	Norman	Oklahoma	73069	12
49285	75000	M	Jack Brown	9429942231	84 Village Ln.	Little Rock	Arkansas	95820	12
490021	104222	M	Harrison Ford	4421452212	1 Gray Dr.	Detroit	Michigan	85723	17
958231	85222	F	Sarah Gillard	8528428828	87 Blue St.	Hollywood	California	27582	2

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Insert a nurse record

localhost:8080/Homework2/queryTwo.jsp

CS5513: Emily Black's Homework 2

Insert the complete information for a nurse.

Nurse's Employee ID:	229392
Nurse's Salary:	89000
Nurse's Sex:	M
Nurse's Name:	Bill Harrington
Nurse's Contact Number:	8573929920
Nurse's Street:	6th West Lane
Nurse's City:	Salt Lake City
Nurse's State:	Utah
Nurse's Zipcode:	94728
Nurse's Level:	3

Insert NurseBack

Insert a nurse record

localhost:8080/Homework2/queryTwoAction.jsp?end=229392&salary=89000&e_sex=M&e_name=Bill+Harrington&e_contact_no=8573929920&street=6th+West+Lane&city=Salt+Lake+City&state=Utah&zipcode=94728&nur...

CS5513: Emily Black's Homework 2

Successfully updated the nurse table.

Nurse's ID	Nurse's Salary	Nurse's Sex	Nurse's Name	Nurse's Contact No.	Nurse's Street	Nurse's City	Nurse's State	Nurse's Zipcode	Nurse's Level
111111	98000	M	John Black	4056738843	857 Pickard Lane	Norman	Oklahoma	73069	12
49285	75000	M	Jack Brown	9429942231	84 Village Ln.	Little Rock	Arkansas	95820	12
490021	104222	M	Harrison Ford	4421452212	1 Gray Dr.	Detroit	Michigan	85723	17
229392	89000	M	Bill Harrington	8573929920	6th West Lane	Salt Lake City	Utah	94728	3
958231	85222	F	Sarah Gillard	8528428828	87 Blue St.	Hollywood	California	27582	2

Home

Query 3 (5 tests):

Insert a doctor record

localhost:8080/Homework2/queryThree.jsp

CS5513: Emily Black's Homework 2

Insert the complete information for a doctor and associate him/her with a patient.

Doctor's Employee ID:	689248
Doctor's Salary:	87000
Doctor's Sex:	F
Doctor's Name:	Sarah Gordan
Doctor's Contact Number:	18672837728
Doctor's Street:	4th W. Main St.
Doctor's City:	Salt Lake City
Doctor's State:	Utah
Doctor's Zipcode:	94728
Doctor's Specialization:	Dermatology
Doctor's Patient ID:	257482

Insert DoctorBack

Insert a doctor record

localhost:8080/Homework2/queryThreeAction.jsp?eid=689248&salary=87000&e_sex=F&e_name=Sarah+Gordan&e_contact_no=18672837728&street=4th+W.+Main+St.&city=Salt+Lake+City&state=Utah&zipcode=94728&...

CS5513: Emily Black's Homework 2

Successfully updated the doctor table.

Doctor's ID	Doctor's Salary	Doctor's Sex	Doctor's Name	Doctor's Contact No.	Doctor's Street	Doctor's City	Doctor's State	Doctor's Zipcode	Doctor's Specialization
689248	87000	F	Sarah Gordan	18672837728	4th W. Main St.	Salt Lake City	Utah	94728	Dermatology

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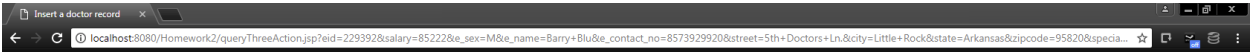
CS5513: Emily Black's Homework 2

Insert the complete information for a doctor and associate him/her with a patient.

Doctor's Employee ID:	229392
Doctor's Salary:	85222
Doctor's Sex:	M
Doctor's Name:	Barry Blu
Doctor's Contact Number:	8573929920
Doctor's Street:	5th Doctors Ln.
Doctor's City:	Little Rock
Doctor's State:	Arkansas
Doctor's Zipcode:	95820
Doctor's Specialization:	Anesthesiology
Doctor's Patient ID:	257482

Insert Doctor

Back



CS5513: Emily Black's Homework 2

Successfully updated the doctor table.

Doctor's ID	Doctor's Salary	Doctor's Sex	Doctor's Name	Doctor's Contact No.	Doctor's Street	Doctor's City	Doctor's State	Doctor's Zipcode	Doctor's Specialization
229392	85222	M	Barry Blu	8573929920	5th Doctors Ln.	Little Rock	Arkansas	95820	Anesthesiology
689248	87000	F	Sarah Gordan	18672837728	4th W. Main St.	Salt Lake City	Utah	94728	Dermatology

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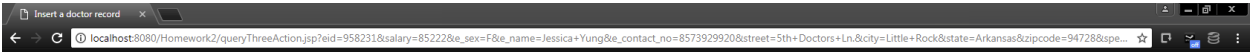
CS5513: Emily Black's Homework 2

Insert the complete information for a doctor and associate him/her with a patient.

Doctor's Employee ID:	958231
Doctor's Salary:	85222
Doctor's Sex:	F
Doctor's Name:	Jessica Yung
Doctor's Contact Number:	8573929920
Doctor's Street:	5th Doctors Ln.
Doctor's City:	Little Rock
Doctor's State:	Arkansas
Doctor's Zipcode:	94728
Doctor's Specialization:	Psychiatry
Doctor's Patient ID:	948274

Insert Doctor

Back



CS5513: Emily Black's Homework 2

Successfully updated the doctor table.

Doctor's ID	Doctor's Salary	Doctor's Sex	Doctor's Name	Doctor's Contact No.	Doctor's Street	Doctor's City	Doctor's State	Doctor's Zipcode	Doctor's Specialization
229392	85222	M	Barry Blu	8573929920	5th Doctors Ln.	Little Rock	Arkansas	95820	Anesthesiology
689248	87000	F	Sarah Gordan	18672837728	4th W. Main St.	Salt Lake City	Utah	94728	Dermatology
958231	85222	F	Jessica Yung	8573929920	5th Doctors Ln.	Little Rock	Arkansas	94728	Psychiatry

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CS5513: Emily Black's Homework 2

Insert the complete information for a doctor and associate him/her with a patient.

Doctor's Employee ID:	490021
Doctor's Salary:	104222
Doctor's Sex:	M
Doctor's Name:	Bill Barrington
Doctor's Contact Number:	9429942231
Doctor's Street:	87 Blue St.
Doctor's City:	Norman
Doctor's State:	Oklahoma
Doctor's Zipcode:	85723
Doctor's Specialization:	Plastic Surgery
Doctor's Patient ID:	842953

Insert Doctor

Back



CS5513: Emily Black's Homework 2

Successfully updated the doctor table.

Doctor's ID	Doctor's Salary	Doctor's Sex	Doctor's Name	Doctor's Contact No.	Doctor's Street	Doctor's City	Doctor's State	Doctor's Zipcode	Doctor's Specialization
229392	85222	M	Barry Blu	8573929920	5th Doctors Ln.	Little Rock	Arkansas	95820	Anesthesiology
490021	104222	M	Bill Barrington	9429942231	87 Blue St.	Norman	Oklahoma	85723	Plastic Surgery
689248	87000	F	Sarah Gordan	18672837728	4th W. Main St.	Salt Lake City	Utah	94728	Dermatology
958231	85222	F	Jessica Yung	8573929920	5th Doctors Ln.	Little Rock	Arkansas	94728	Psychiatry

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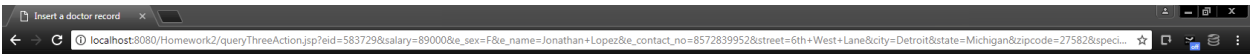


CS5513: Emily Black's Homework 2

Insert the complete information for a doctor and associate him/her with a patient.

Doctor's Employee ID:	583729
Doctor's Salary:	89000
Doctor's Sex:	F
Doctor's Name:	Jonathan Lopez
Doctor's Contact Number:	8572839952
Doctor's Street:	6th West Lane
Doctor's City:	Detroit
Doctor's State:	Michigan
Doctor's Zipcode:	27582
Doctor's Specialization:	Gastroenterology
Doctor's Patient ID:	842953

[Insert Doctor](#) [Back](#)



CS5513: Emily Black's Homework 2

Successfully updated the doctor table.

Doctor's ID	Doctor's Salary	Doctor's Sex	Doctor's Name	Doctor's Contact No.	Doctor's Street	Doctor's City	Doctor's State	Doctor's Zipcode	Doctor's Specialization
229392	85222	M	Barry Blu	8573929920	5th Doctors Ln.	Little Rock	Arkansas	95820	Anesthesiology
490021	104222	M	Bill Barrington	9429942231	87 Blue St.	Norman	Oklahoma	85723	Plastic Surgery
583729	89000	F	Jonathan Lopez	8572839952	6th West Lane	Detroit	Michigan	27582	Gastroenterology
689248	87000	F	Sarah Gordan	18672837728	4th W. Main St.	Salt Lake City	Utah	94728	Dermatology
958231	85222	F	Jessica Yung	8573929920	5th Doctors Ln.	Little Rock	Arkansas	94728	Psychiatry

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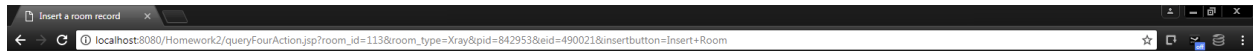
Query 4 (5 tests):



CS5513: Emily Black's Homework 2

Insert the complete information for a room and associate it with a patient and a nurse.

Room ID:	113
Room Type:	Xray
Patient's ID:	842953
Nurse's Employee ID:	490021



CS5513: Emily Black's Homework 2

Successfully updated the room table.

Room ID	Room Type
113	Xray

Homework 2 – Emily Black – 03/26/18

Insert a room record

localhost:8080/Homework2/queryfour.jsp

CS5513: Emily Black's Homework 2

Insert the complete information for a room and associate it with a patient and a nurse.

Room ID:	225
Room Type:	MRI
Patient's ID:	382751
Nurse's Employee ID:	229392

Insert RoomBack

Insert a room record

localhost:8080/Homework2/queryfourAction.jsp?room_id=225&room_type=MRI&pid=382751&eid=229392&insertbutton=Insert+Room

CS5513: Emily Black's Homework 2

Successfully updated the room table.

Room ID	Room Type
225	MRI
113	Xray

Home

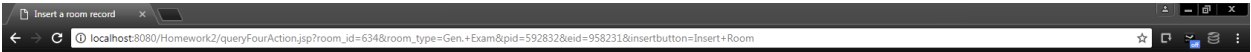
Homework 2 – Emily Black – 03/26/18



CS5513: Emily Black's Homework 2

Insert the complete information for a room and associate it with a patient and a nurse.

Room ID:	<input type="text" value="634"/>
Room Type:	<input type="text" value="Gen. Exam"/>
Patient's ID:	<input type="text" value="592832"/>
Nurse's Employee ID:	<input type="text" value="958231"/>



CS5513: Emily Black's Homework 2

Successfully updated the room table.

Room ID	Room Type
225	MRI
634	Gen. Exam
113	Xray

Home

Homework 2 – Emily Black – 03/26/18

Insert a room record

localhost:8080/Homework2/queryfour.jsp

CS5513: Emily Black's Homework 2

Insert the complete information for a room and associate it with a patient and a nurse.

Room ID:	<input type="text" value="011"/>
Room Type:	<input type="text" value="Waiting"/>
Patient's ID:	<input type="text" value="257482"/>
Nurse's Employee ID:	<input type="text" value="111111"/>

Insert a room record

localhost:8080/Homework2/queryfourAction.jsp?room_id=011&room_type=Waiting&pid=257482&eid=111111&insertbutton=Insert+Room

CS5513: Emily Black's Homework 2

Successfully updated the room table.

Room ID	Room Type
225	MRI
11	Waiting
634	Gen. Exam
113	Xray

Home

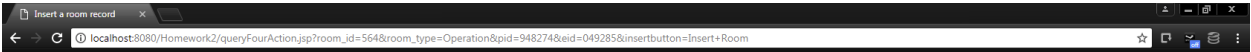
Homework 2 – Emily Black – 03/26/18



CS5513: Emily Black's Homework 2

Insert the complete information for a room and associate it with a patient and a nurse.

Room ID:	<input type="text" value="564"/>
Room Type:	<input type="text" value="Operation"/>
Patient's ID:	<input type="text" value="948274"/>
Nurse's Employee ID:	<input type="text" value="049285"/>
<input type="button" value="Insert Room"/> <input type="button" value="Back"/>	



CS5513: Emily Black's Homework 2

Successfully updated the room table.

Room ID	Room Type
225	MRI
564	Operation
11	Waiting
634	Gen. Exam
113	Xray

[Home](#)

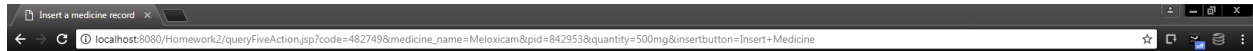
Query 5 (5 tests):



CS5513: Emily Black's Homework 2

Insert the complete information for a medicine and associate it with a patient.

Medicine's Code:	482749
Medicine's Name:	Meloxicam
Patient's ID:	842953
Patient's Quantity:	500mg



CS5513: Emily Black's Homework 2

Successfully updated the medicine table.

Medicine Code	Medicine Name
482749	Meloxicam

Homework 2 – Emily Black – 03/26/18

Insert a medicine record

localhost:8080/Homework2/queryFive.jsp

CS5513: Emily Black's Homework 2

Insert the complete information for a medicine and associate it with a patient.

Medicine's Code:	58394285
Medicine's Name:	Xanax
Patient's ID:	948274
Patient's Quantity:	800mg

Insert Medicine

Back

Insert a medicine record

localhost:8080/Homework2/queryFiveAction.jsp?code=58394285&medicine_name=Xanax&pid=948274&quantity=800mg&insertbutton=Insert+Medicine

CS5513: Emily Black's Homework 2

Successfully updated the medicine table.

Medicine Code	Medicine Name
58394285	Xanax
482749	Meloxicam

Home

Homework 2 – Emily Black – 03/26/18

Insert a medicine record

localhost:8080/Homework2/queryfive.jsp

CS5513: Emily Black's Homework 2

Insert the complete information for a medicine and associate it with a patient.

Medicine's Code:	8482749
Medicine's Name:	Jzificks
Patient's ID:	842953
Patient's Quantity:	715mg

Insert Medicine

Back

Insert a medicine record

localhost:8080/Homework2/queryfiveAction.jsp?code=8482749&medicine_name=jzificks&pid=842953&quantity=715mg&insertbutton=Insert+Medicine

CS5513: Emily Black's Homework 2

Successfully updated the medicine table.

Medicine Code	Medicine Name
58394285	Xanax
8482749	Jzificks
482749	Meloxicam

Home

Homework 2 – Emily Black – 03/26/18

Insert a medicine record

localhost:8080/Homework2/queryfive.jsp

CS5513: Emily Black's Homework 2

Insert the complete information for a medicine and associate it with a patient.

Medicine's Code:	583923958
Medicine's Name:	Unux
Patient's ID:	592832
Patient's Quantity:	50mg

Insert Medicine

Back

Insert a medicine record

localhost:8080/Homework2/queryfiveAction.jsp?code=583923958&medicine_name=Unux&pid=592832&quantity=50mg&insertbutton=insert+Medicine

CS5513: Emily Black's Homework 2

Successfully updated the medicine table.

Medicine Code	Medicine Name
58394285	Xanax
583923958	Unux
8482749	Jzificks
482749	Meloxicam

Home

Homework 2 – Emily Black – 03/26/18

Insert a medicine record

localhost:8080/Homework2/queryFive.jsp

CS5513: Emily Black's Homework 2

Insert the complete information for a medicine and associate it with a patient.

Medicine's Code:	02947862
Medicine's Name:	Yieficer
Patient's ID:	382751
Patient's Quantity:	2000mg

Insert Medicine

Back

Insert a medicine record

localhost:8080/Homework2/queryFiveAction.jsp?code=02947862&medicine_name=Yieficer&pid=382751&quantity=2000mg&insertbutton=Insert+Medicine

CS5513: Emily Black's Homework 2

Successfully updated the medicine table.

Medicine Code	Medicine Name
58394285	Xanax
583923958	Unux
8482749	Jzificks
2947862	Yieficer
482749	Meloxicam

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Query 6 (2 tests):

Patients

localhost:8080/Homework2/querySix.jsp

CS5513 Web Application

All the patients who were in the hospital during a particular month of a particular year (e.g. during July of 2017).

Month:	7
Year:	2017

[Find Patient\(s\)](#) [Back](#)

Queried for patient(s)

localhost:8080/Homework2/querySixAction.jsp?month=7&year=2017&insertbutton=Find+Patient%28s%29

CS5513: Emily Black's Homework 2

Successfully queried for patients who were in the hospital given a certain time period.

Patient's ID	Patient's Name	Patient's Sex	Patient's Address	Patient's Discharged Date	Patient's Admitted Date	Patient's Contacts
842953	Laura Smith	F	857 Pickard Lane	4/25/2018	7/24/2017	[Bob Mark, Ryan Brown]
382751	Emily Black	F	1804 Marian Dr.	3/15/2018	12/18/2014	[C Black, N Black]

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Homework 2 – Emily Black – 03/26/18



CS5513 Web Application

All the patients who were in the hospital during a particular month of a particular year (e.g. during July of 2017).

Month:	2
Year:	2002



CS5513: Emily Black's Homework 2

Successfully queried for patients who were in the hospital given a certain time period.

Patient's ID	Patient's Name	Patient's Sex	Patient's Address	Patient's Discharged Date	Patient's Admitted Date	Patient's Contacts
257482	Jessica Hernd	F	1 Gray Dr.	7/16/2013	2/25/2001	[John Hernd, Sophie Hernd]
592832	Sam Smith	M	84 Village Ln.	7/13/2002	7/12/2001	[Yennifer L, Rosa Red]

Home

Query 7 (2 tests):

Doctors

localhost:8080/Homework2/querySeven.jsp

CS5513 Web Application

All the doctors who care for more than N patients (e.g. 2).

Number of Patients:

1

Find Doctor(s)

Back

Queried for doctor(s)

localhost:8080/Homework2/querySevenAction.jsp?n_patients=1&insertbutton=Find+Doctor%28%29

CS5513: Emily Black's Homework 2

Successfully queried for all doctors who care for more than N patients.

Doctor's ID	Doctor's Salary	Doctor's Sex	Doctor's Name	Doctor's Contact No.	Doctor's Street	Doctor's City	Doctor's State	Doctor's Zipcode	Doctor's Specialization
490021	104222	M	Bill Barrington	9429942231	87 Blue St.	Norman	Oklahoma	85723	Plastic Surgery
583729	89000	F	Jonathan Lopez	8572839952	6th West Lane	Detroit	Michigan	27582	Gastroenterology
689248	87000	F	Sarah Gordan	18672837728	4th W. Main St.	Salt Lake City	Utah	94728	Dermatology

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Homework 2 – Emily Black – 03/26/18

Doctors

localhost:8080/Homework2/querySeven.jsp

CS5513 Web Application

All the doctors who care for more than N patients (e.g. 2).

Number of Patients:

2

Find Doctor(s)

Back

Queried for doctor(s)

localhost:8080/Homework2/querySevenAction.jsp?n_patients=2&insertbutton=Find+Doctor%28%29

CS5513: Emily Black's Homework 2

Successfully queried for all doctors who care for more than N patients.

Doctor's ID	Doctor's Salary	Doctor's Sex	Doctor's Name	Doctor's Contact No.	Doctor's Street	Doctor's City	Doctor's State	Doctor's Zipcode	Doctor's Specialization
583729	\$9000	F	Jonathan Lopez	8572839952	6th West Lane	Detroit	Michigan	27582	Gastroenterology

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Query 8 (2 tests):

Nurses

localhost:8080/Homework2/queryEight.jsp

CS5513 Web Application

All nurses who tend to patients that are given a certain medicine.

Medicine's Code:

Queried for nurse(s)

localhost:8080/Homework2/queryEightAction.jsp?code=58394285&insertbutton=Find+Nurse%28s%29

CS5513: Emily Black's Homework 2

Successfully queried for all nurses who tend to patients that are given a certain medicine.

Nurse's ID	Nurse's Salary	Nurse's Sex	Nurse's Name	Nurse's Contact No.	Nurse's Street	Nurse's City	Nurse's State	Nurse's Zipcode	Nurse's Level
49285	75000	M	Jack Brown	9429942231	84 Village Ln.	Little Rock	Arkansas	95820	12

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Homework 2 – Emily Black – 03/26/18

Nurses

localhost:8080/Homework2/queryEight.jsp

CS5513 Web Application

All nurses who tend to patients that are given a certain medicine.

Medicine's Code:

Queried for nurse(s)

localhost:8080/Homework2/queryEightAction.jsp?code=8482749&insertbutton=Find+Nurse%28%29

CS5513: Emily Black's Homework 2

Successfully queried for all nurses who tend to patients that are given a certain medicine.

Nurse's ID	Nurse's Salary	Nurse's Sex	Nurse's Name	Nurse's Contact No.	Nurse's Street	Nurse's City	Nurse's State	Nurse's Zipcode	Nurse's Level
490021	104222	M	Harrison Ford	4421452212	1 Gray Dr.	Detroit	Michigan	85723	17

Query 9 (2 tests):

Delete a patient record

localhost:8080/Homework2/queryNine.jsp

CS5513: Emily Black's Homework 2

Delete all the patients who were discharged before a particular year.

Input Year:

2003

Delete Patient(s)

Back

Queried for patients(s)

localhost:8080/Homework2/queryNineAction.jsp?year=2003&deletebutton=Delete+Patient%28s%29

CS5513: Emily Black's Homework 2

Successfully deleted all patients who were discharged before a particular year.

Patient's ID	Patient's Name	Patient's Sex	Patient's Address	Patient's Discharged Date	Patient's Admitted Date	Patient's Contacts
257482	Jessica Hernd	F	1 Gray Dr.	7/16/2013	2/25/2001	[John Hernd, Sophie Hernd]
948274	Ken Brown	M	87 Blue St.	7/16/2013	3/12/2012	[Jenna Brown, Laurie Smith]
842953	Laura Smith	F	857 Pickard Lane	4/25/2018	7/24/2017	[Bob Mark, Ryan Brown]
382751	Emily Black	F	1804 Marian Dr.	3/15/2018	12/18/2014	[C Black, N Black]

Home

Homework 2 – Emily Black – 03/26/18

Delete a patient record

localhost:8080/Homework2/queryNine.jsp

CS5513: Emily Black's Homework 2

Delete all the patients who were discharged before a particular year.

Input Year:

2014

Delete Patient(s)

Back

Queried for patients(s)

localhost:8080/Homework2/queryNineAction.jsp?year=2014&deletebutton=Delete+Patient%28%29

CS5513: Emily Black's Homework 2

Successfully deleted all patients who were discharged before a particular year.

Patient's ID	Patient's Name	Patient's Sex	Patient's Address	Patient's Discharged Date	Patient's Admitted Date	Patient's Contacts
842953	Laura Smith	F	857 Pickard Lane	4/25/2018	7/24/2017	[Bob Mark, Ryan Brown]
382751	Emily Black	F	1804 Marian Dr.	3/15/2018	12/18/2014	[C Black, N Black]

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Query 10 (2 tests):

Delete a patient record

localhost:8080/Homework2/queryTen.jsp

CS5513: Emily Black's Homework 2

Delete all the patients who have not been assigned a room.

Delete Patient(s)

Back

Queried for patients(s)

localhost:8080/Homework2/queryTenAction.jsp?deletebutton=Delete+Patient%28s%29

CS5513: Emily Black's Homework 2

Successfully deleted all patients who have not been assigned a room.

Patient's ID	Patient's Name	Patient's Sex	Patient's Address	Patient's Discharged Date	Patient's Admitted Date	Patient's Contacts
842953	Laura Smith	F	857 Pickard Lane	4/25/2018	7/24/2017	[Bob Mark, Ryan Brown]
382751	Emily Black	F	1804 Marian Dr.	3/15/2018	12/18/2014	[C Black, N Black]

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Homework 2 – Emily Black – 03/26/18

Delete a patient record

localhost8080/Homework2/queryTen.jsp

CS5513: Emily Black's Homework 2

Delete all the patients who have not been assigned a room.

Delete Patient(s)

Back

Queried for patients(s)

localhost8080/Homework2/queryTenAction.jsp?deletebutton=Delete+Patient%28%29

CS5513: Emily Black's Homework 2

Successfully deleted all patients who have not been assigned a room.

Patient's ID	Patient's Name	Patient's Sex	Patient's Address	Patient's Discharged Date	Patient's Admitted Date	Patient's Contacts
842953	Laura Smith	F	857 Pickard Lane	4/25/2018	7/24/2017	[Bob Mark, Ryan Brown]
382751	Emily Black	F	1804 Marian Dr.	3/15/2018	12/18/2014	[C Black, N Black]

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