

# CS 631 – MORRIS HEALTH SERVICES PROJECT

## FINAL DELIVERABLE

HRITHIKKA GUDA (hg345)

VISHWA THEERTHALA (vt327)

RAGHU RAIKANTI (rr777)

### **Description of implementation, problems faced:**

#### (1) Database Setup:

- We have created a MySQL database named MHS.
- We have designed and implemented the necessary tables based on an updated EER (Enhanced Entity-Relationship) diagram.
- Data has been inserted into each table to populate them with initial values.

#### (2) Backend Logic (main.py):

- The main.py file serves as the backend logic for your application.
- You establish a connection to the MySQL database.
- Functions related to the database schema are defined to handle operations like querying, inserting, updating, and deleting data according to the application's requirements.
- These functions encapsulate the logic needed to interact with the database.

#### (3) Frontend Development:

- Utilizing Streamlit, you build the frontend of your application within the same main.py file.
- You design the user interface (UI) using Streamlit's intuitive syntax and widgets.
- The frontend interacts with the backend functions you've defined earlier to display and manipulate data.

#### (4) Requirements:

- Before running the application, ensure that the necessary Python packages are installed, namely Streamlit and the MySQL connector for Python.
- This can be done using `pip install streamlit mysql-connector-python`.

#### (5) Running the Application:

- To launch the application, execute the command `streamlit run main.py`.
- This command starts the Streamlit server and runs your main.py file.
- Once the server is up and running, you'll receive a message indicating that you can view your Streamlit app in your browser.
- You can access the application locally via the provided URL.

## **PROBLEMS FACED:**

We have encountered some issues related to case sensitivity in database table creations and queries. To address these issues, we've wisely implemented error handling using try-catch-finally blocks to ensure that the application continues running smoothly even if such errors occur.

## **USER GUIDE:**

### MHS Application User Guide

#### ### Introduction:

Welcome to the MHS (Medical Healthcare System) application! This guide will help you navigate and utilize the various features of the application, including Employee and Facility Management, Patient Management, and Management and Reporting functionalities.

#### ### Getting Started:

##### 1. \*System Requirements:\*

- Ensure you have Python installed on your system.
- Install required Python packages using:

```
pip install streamlit mysql-connector-python
```

##### 2. \*Database Setup:\*

- Make sure you have a MySQL database named MHS set up with necessary tables populated.

##### 3. \*Running the Application:\*

- Open your terminal/command prompt.
- Navigate to the directory containing the main.py file.
- Execute the following command:

```
streamlit run main.py
```

#### ### Navigating the Application:

- Upon launching the application, you'll be presented with a main menu.
- From the main menu, select the desired application program:
  - Employee and Facility Management
  - Patient Management
  - Management and Reporting

#### ### Employee and Facility Management:

- \*Insert / Update / View:\*
- Navigate through options to manage employees, medical offices, out-patient surgery facilities, etc.

#### ### Patient Management:

- \*Create New Patient Records:\*
- Enter details to create new patient records.
- \*Appointments and Charges:\*
- Schedule appointments and update charges upon completion.
- \*Generate Invoices:\*
- Create daily insurance company invoices with patient subtotals.

#### ### Management and Reporting:

- \*Revenue Report:\*
- Generate revenue report by facility for a given day.
- \*Appointment List:\*
- View appointments for a selected date and physician.
- \*Appointment Details:\*
- List appointments with detail for a selected time period and facility.
- \*Financial Performance:\*
- Compute statistics for income, facilities, employees, and patients.

#### ### Troubleshooting:

- If you encounter any issues or errors:

- Check your internet connection and database connectivity.
- Ensure correct input format and data integrity.

#### ### Best Practices:

- Regularly backup your database to prevent data loss.
- Follow proper data entry procedures to maintain accuracy.
- Optimize database queries for better performance.

---

### **The source code.**

Main.py

# Function to connect to MySQL database

```
import streamlit as st
```

```
import mysql.connector
```

```
from datetime import datetime
```

# Function to connect to MySQL database

```
def connect_to_database():
```

```
    return mysql.connector.connect(
```

```
        host="127.0.0.1",
```

```
        port=3308,
```

```
        user="root",
```

```
        password="root",
```

```
        database="MHS"
```

```
    )
```

# Function to get primary FACILITIES based on job class

```
def get_primary_FACILITIES(job_class):
```

```

try:
    # Connect to MySQL database
    connection = connect_to_database()

    cursor = connection.cursor()

    # Execute query based on job class
    if job_class == "physician":
        cursor.execute("select facid, concat(street,', ',city,', ',state,', ',zip) as primary_office
from FACILITIES where ftype = 'office'")
    else:
        cursor.execute("select facid, concat(street,', ',city,', ',state,', ',zip) as primary_office
from FACILITIES where ftype <> 'office'")

    results = cursor.fetchall()

    return [str(result[0])+" "+result[1] for result in results] # Extract facility names from the
results

except mysql.connector.Error as error:
    st.error(f"Error getting primary FACILITIES: {error}")

finally:
    if connection.is_connected():
        cursor.close() # best practice
        connection.close()

def get_secondary_FACILITIES():
    try:
        # Connect to MySQL database
        connection = connect_to_database()

        cursor = connection.cursor()

        cursor.execute("select facid,concat(street,', ',city,', ',state,', ',zip) as secondary_office
from FACILITIES")

        results = cursor.fetchall()

        return [str(result[0])+" "+result[1] for result in results] # Extract facility names from the
results

```

```

except mysql.connector.Error as error:
    st.error(f"Error getting secondary FACILITIES: {error}")
finally:
    if connection.is_connected():
        cursor.close()
        connection.close()

# Function to get all employee names from the database
def get_all_employee_names():
    try:
        # Connect to MySQL database
        connection = connect_to_database()
        cursor = connection.cursor()

        cursor.execute("SELECT CONCAT(first_name, ' ', last_name) AS full_name FROM EMPLOYEES")

        results = cursor.fetchall()

        return [result[0] for result in results]
    except mysql.connector.Error as error:
        st.error(f"Error getting employee names: {error}")
    finally:
        if connection.is_connected():
            cursor.close()
            connection.close()

# Function to get employee details by name
def get_employee_details_by_name(full_name):
    try:
        # Connect to MySQL database
        connection = connect_to_database()
        cursor = connection.cursor(dictionary=True)

```

```
        cursor.execute("SELECT * FROM EMPLOYEES WHERE CONCAT(first_name, ' ',
last_name) = %s", (full_name,))
```

```
        return cursor.fetchone()
```

```
    except mysql.connector.Error as error:
```

```
        st.error(f"Error getting employee details: {error}")
```

```
    finally:
```

```
        if connection.is_connected():
```

```
            cursor.close()
```

```
            connection.close()
```

```
# Function to update employee information
```

```
def update_employee_info(empid, new_info):
```

```
    try:
```

```
        # Connect to MySQL database
```

```
        connection = connect_to_database()
```

```
        cursor = connection.cursor()
```

```
        # Update employee information
```

```
        sql = "UPDATE EMPLOYEES SET first_name = %s, middle_name = %s, last_name =
%s, ssn = %s, salary = %s, hire_date = %s, street = %s, city = %s, state = %s, zip = %s
WHERE empid = %s"
```

```
        values = (new_info['first_name'], new_info['middle_name'], new_info['last_name'],
new_info['ssn'], new_info['salary'], new_info['hire_date'], new_info['street'], new_info['city'],
new_info['state'], new_info['zipcode'], empid)
```

```
        cursor.execute(sql, values)
```

```
        connection.commit()
```

```
        st.success("Employee information updated successfully.")
```

```
    except mysql.connector.Error as error:
```

```
        st.error(f"Error updating employee information: {error}")
```

```
    finally:
```

```
        if connection.is_connected():
```

```
            cursor.close()
```

```
            connection.close()
```

```

def get_all_employee_details():
    try:
        # Connect to MySQL database
        connection = connect_to_database()
        cursor = connection.cursor(dictionary=True)
        cursor.execute("SELECT * FROM EMPLOYEES")
        return cursor.fetchall()
    except mysql.connector.Error as error:
        st.error(f'Error getting employee details: {error}')
    finally:
        if connection.is_connected():
            cursor.close()
            connection.close()

```

```

def get_all_employee_assignments():
    try:
        # Connect to MySQL database
        connection = connect_to_database()
        cursor = connection.cursor(dictionary=True)
        cursor.execute("select EMPLOYEES.first_name, EMPLOYEES.middle_name,
EMPLOYEES.last_name, EMPLOYEES.job_class, FACILITIES.* from EMPLOYEES,
FACILITIES where EMPLOYEES.facid = FACILITIES.facid order by
EMPLOYEES.empid")
        return cursor.fetchall()
    except mysql.connector.Error as error:
        st.error(f'Error getting employee assignment details: {error}')
    finally:
        if connection.is_connected():
            cursor.close()

```



```
connection.close()
```

```
# Function to get all medical office details
```

```
def get_medical_office_details():
```

```
    try:
```

```
        # Connect to MySQL database
```

```
        connection = connect_to_database()
```

```
        cursor = connection.cursor(dictionary=True)
```

```
        cursor.execute("SELECT * FROM FACILITIES WHERE ftype = 'office'")
```

```
        return cursor.fetchall()
```

```
    except mysql.connector.Error as error:
```

```
        st.error(f"Error getting medical office details: {error}")
```

```
    finally:
```

```
        if connection.is_connected():
```

```
            cursor.close()
```

```
            connection.close()
```

```
# Function to update medical office information
```

```
def update_medical_office_info(facid, new_info):
```

```
    try:
```

```
        # Connect to MySQL database
```

```
        connection = connect_to_database()
```

```
        cursor = connection.cursor()
```

```
        # Update medical office information
```

```
        sql = "UPDATE FACILITIES SET size = %s, street = %s, city = %s, state = %s, zip = %s WHERE facid = %s"
```

```
        values = (new_info['size'], new_info['street'], new_info['city'], new_info['state'], new_info['zip'], facid)
```

```
        cursor.execute(sql, values)
```

```
        connection.commit()
```

```
        st.success("Medical office information updated successfully.")
```

```
except mysql.connector.Error as error:
    st.error(f'Error updating medical office information: {error}')
finally:
    if connection.is_connected():
        cursor.close()
        connection.close()
```

# Function to get all medical ops details

```
def get_medical_ops_details():
    try:
        # Connect to MySQL database
        connection = connect_to_database()
        cursor = connection.cursor(dictionary=True)
        cursor.execute("SELECT * FROM FACILITIES WHERE ftype = 'outpatient surgery'")
        return cursor.fetchall()
    except mysql.connector.Error as error:
        st.error(f'Error getting medical ops details: {error}')
    finally:
        if connection.is_connected():
            cursor.close()
            connection.close()
```

# Function to update medical ops information

```
def update_medical_ops_info(facid, new_info):
    try:
        # Connect to MySQL database
        connection = connect_to_database()
        cursor = connection.cursor()
        # Update medical office information
```

```
sql = "UPDATE FACILITIES SET size = %s, street = %s, city = %s, state = %s, zip = %s WHERE facid = %s"
```

```
values = (new_info['size'], new_info['street'], new_info['city'], new_info['state'], new_info['zip'], facid)
```

```
cursor.execute(sql, values)
```

```
connection.commit()
```

```
st.success("OPS information updated successfully.")
```

```
except mysql.connector.Error as error:
```

```
st.error(f"Error updating medical OPS information: {error}")
```

```
finally:
```

```
if connection.is_connected():
```

```
    cursor.close()
```

```
    connection.close()
```

```
# Function to get all insurance company details
```

```
def get_insurance_company_details():
```

```
    try:
```

```
        # Connect to MySQL database
```

```
        connection = connect_to_database()
```

```
        cursor = connection.cursor(dictionary=True)
```

```
        cursor.execute("SELECT * FROM INSURANCE_COMPANIES")
```

```
        return cursor.fetchall()
```

```
    except mysql.connector.Error as error:
```

```
        st.error(f"Error getting insurance company details: {error}")
```

```
    finally:
```

```
        if connection.is_connected():
```

```
            cursor.close()
```

```
            connection.close()
```

```
# Function to add a new insurance company
```

```
def add_insurance_company(company, street, city, state, zip_code):
```

```

try:
    # Connect to MySQL database
    connection = connect_to_database()

    cursor = connection.cursor()

    # Add new insurance company
    sql = "INSERT INTO INSURANCE_COMPANIES (company, street, city, state, zip)
VALUES (%s, %s, %s, %s, %s)"

    values = (company, street, city, state, zip_code)

    cursor.execute(sql, values)

    connection.commit()

    st.success("Insurance company added successfully.")
except mysql.connector.Error as error:
    st.error(f"Error adding insurance company: {error}")
finally:
    if connection.is_connected():
        cursor.close()
        connection.close()

```

```

def update_insurance_company_info(ins_id, new_info):
    try:
        # Connect to MySQL database
        connection = connect_to_database()

        cursor = connection.cursor()

        # Update insurance company information
        sql = "UPDATE INSURANCE_COMPANIES SET company = %s, street = %s, city =
%s, state = %s, zip = %s WHERE ins_id = %s"

        values = (new_info['company'], new_info['street'], new_info['city'], new_info['state'],
new_info['zip'], ins_id)

        cursor.execute(sql, values)

        connection.commit()

```

```

        st.success("Insurance company information updated successfully.")
except mysql.connector.Error as error:
    st.error(f"Error updating insurance company information: {error}")
finally:
    if connection.is_connected():
        cursor.close()
        connection.close()

# Function to get all primary PHYSICIANS
def get_primary_physician_details():
    try:
        # Connect to MySQL database
        connection = connect_to_database()
        cursor = connection.cursor(dictionary=True)
        cursor.execute("SELECT CONCAT(first_name, ' ', last_name) AS full_name FROM EMPLOYEES WHERE job_class='physician'")
        return cursor.fetchall()
    except mysql.connector.Error as error:
        st.error(f"Error getting physician details: {error}")
    finally:
        if connection.is_connected():
            cursor.close()
            connection.close()

def get_INSURANCE_COMPANIES():
    try:
        # Connect to MySQL database
        connection = connect_to_database()
        cursor = connection.cursor(dictionary=True)
        cursor.execute("SELECT company FROM INSURANCE_COMPANIES")
        return cursor.fetchall()

```

```

except mysql.connector.Error as error:
    st.error(f'Error getting company details: {error}')
finally:
    if connection.is_connected():
        cursor.close()
        connection.close()

def add_patient(first_name, middle_name, last_name, street, city, state, zipcode,
primary_physician_id, ins_id):
    try:
        # Connect to MySQL database
        connection = connect_to_database()
        cursor = connection.cursor()
        # Add new insurance company
        sql = "INSERT INTO PATIENTS (first_name, middle_name, last_name, street, city,
state, zip, primary_physician_id, ins_id) VALUES (%s, %s, %s, %s, %s, %s, %s, %s, %s)"
        values = (first_name, middle_name, last_name, street, city, state, zipcode,
primary_physician_id, ins_id)
        cursor.execute(sql, values)
        connection.commit()
        st.success("Patient Details added successfully.")
    except mysql.connector.Error as error:
        st.error(f'Error adding patient details: {error}')
    finally:
        if connection.is_connected():
            cursor.close()
            connection.close()

# Function to get all PATIENTS
def get_patient_details():
    try:

```

```

# Connect to MySQL database
connection = connect_to_database()
cursor = connection.cursor(dictionary=True)

cursor.execute("SELECT CONCAT(first_name, ' ', last_name) AS full_name FROM
PATIENTS")

return cursor.fetchall()

except mysql.connector.Error as error:
    st.error(f"Error getting patient details: {error}")

finally:
    if connection.is_connected():
        cursor.close()
        connection.close()

def add_appointment(formatted_datetime, description, patient_id, physician_id, facid):
    try:
        # Connect to MySQL database
        connection = connect_to_database()
        cursor = connection.cursor()

        # Add new insurance company
        sql = "INSERT INTO APPOINTMENTS (appt_date_time, appt_description, patient_id,
physician_id, facid) VALUES (%s, %s, %s, %s, %s)"

        values = (formatted_datetime, description, patient_id, physician_id, facid)
        cursor.execute(sql, values)
        connection.commit()

        st.success("Appointment Confirmed")

    except mysql.connector.Error as error:
        st.error(f"Error adding appointment details: {error}")

    finally:
        if connection.is_connected():
            cursor.close()
            connection.close()

```

```

def add_invoice(selected_appt_date_time, appointment_cost, selected_appt_id):
    try:
        # Connect to MySQL database
        connection = connect_to_database()
        cursor = connection.cursor()
        # Add new insurance company
        sql = "INSERT INTO INVOICES (inv_date, amount,appt_id) VALUES (%s, %s, %s)"
        values = (selected_appt_date_time, appointment_cost, selected_appt_id)
        cursor.execute(sql, values)
        connection.commit()
        st.success("Invoice added to the appointment")
    except mysql.connector.Error as error:
        st.error(f'Error adding invoice detials: {error}')
    finally:
        if connection.is_connected():
            cursor.close()
            connection.close()

def display_totals(date_input,ins_id):
    try:
        # Connect to MySQL database
        connection = connect_to_database()
        cursor = connection.cursor(dictionary=True)
        sql1 = "select p.first_name, p.last_name, sum(inv.amount) as patient_total from
PATIENTS p, APPOINTMENTS a, INVOICES inv where p.pid = a.patient_id and a.appt_id
= inv.appt_id and inv.inv_date = %s and p.ins_id = %s group by p.pid"
        values = (date_input,ins_id)
        cursor.execute(sql1,values)
        return cursor.fetchall()

```



```
except mysql.connector.Error as error:
    st.error(f'Error getting patient details: {error}')
```

```
finally:
```

```
    if connection.is_connected():
        cursor.close()
        connection.close()
```

```
def revenue_report(f_dt):
```

```
    try:
```

```
        # Connect to MySQL database
```

```
        connection = connect_to_database()
```

```
        cursor = connection.cursor(dictionary=True)
```

```
        sql1 = "select f.facid, f.street, f.city, f.state, f.zip, sum(inv.amount) as total from
FACILITIES f, APPOINTMENTS a , INVOICES inv where a.facid = f.facid and a.appt_id =
inv.appt_id and inv.inv_date = %s group by f.facid"
```

```
        values = (f_dt,)
```

```
        cursor.execute(sql1,values)
```

```
        return cursor.fetchall()
```

```
except mysql.connector.Error as error:
```

```
    st.error(f'Error getting patient details: {error}')
```

```
finally:
```

```
    if connection.is_connected():
```

```
        cursor.close()
```

```
        connection.close()
```

```
def apt_list_physician(f_dt,physician_id):
```

```
    try:
```

```
        # Connect to MySQL database
```

```
        connection = connect_to_database()
```

```
        cursor = connection.cursor(dictionary=True)
```

```

        sql1 = "select a.appt_id, a.appt_date_time, a.appt_description, CONCAT(p.first_name, '
', p.last_name) as patient_name, CONCAT(e.first_name, ' ', e.last_name) as physician_name
, CONCAT(f.street, ' ', f.city, ' ', f.state, ' ', f.zip) as facility_location from APPOINTMENTS a,
PATIENTS p, EMPLOYEES e, FACILITIES f where a.patient_id = p.pid and
a.physician_id= e.empid and a.facid = f.facid and date(a.appt_date_time) = %s and
a.physician_id = %s"

```

```

        values = (f_dt,physician_id)

```

```

        cursor.execute(sql1,values)

```

```

        return cursor.fetchall()

```

```

except mysql.connector.Error as error:

```

```

    st.error(f"Error getting patient details: {error}")

```

```

finally:

```

```

    if connection.is_connected():

```

```

        cursor.close()

```

```

        connection.close()

```

```

def apt_list_facility(begin_dt,end_dt,facid):

```

```

    try:

```

```

        # Connect to MySQL database

```

```

        connection = connect_to_database()

```

```

        cursor = connection.cursor(dictionary=True)

```

```

        sql1 = "select a.appt_id, a.appt_date_time, a.appt_description, CONCAT(p.first_name, '
', p.last_name) as patient_name, CONCAT(e.first_name, ' ', e.last_name) as physician_name
, CONCAT(f.street, ' ', f.city, ' ', f.state, ' ', f.zip) as facility_location from APPOINTMENTS a,
PATIENTS p, EMPLOYEES e, FACILITIES f where a.patient_id = p.pid and
a.physician_id= e.empid and a.facid = f.facid and date(a.appt_date_time) >= %s and
date(a.appt_date_time) <= %s and a.facid = %s"

```

```

        values = (begin_dt,end_dt,facid)

```

```

        cursor.execute(sql1,values)

```

```

        return cursor.fetchall()

```

```

except mysql.connector.Error as error:

```

```

    st.error(f"Error getting patient details: {error}")

```

```

finally:
    if connection.is_connected():
        cursor.close()
        connection.close()

```

```

def get_facility_details():
    try:
        # Connect to MySQL database
        connection = connect_to_database()
        cursor = connection.cursor(dictionary=True)
        cursor.execute("SELECT * FROM FACILITIES")
        return cursor.fetchall()
    except mysql.connector.Error as error:
        st.error(f'Error getting medical office details: {error}')
    finally:
        if connection.is_connected():
            cursor.close()
            connection.close()

```

```

def generate_best_days(month_number):
    try:
        # Connect to MySQL database
        connection = connect_to_database()
        cursor = connection.cursor(dictionary=True)

        csqll = "select day(a.appt_date_time) as DAY , sum(inv.amount) as  
TOTAL_REVENUE  
  
from INVOICES inv, APPOINTMENTS a  
  
where inv.appt_id = a.appt_id  
  
and month(a.appt_date_time) = %s  
  
group by day(a.appt_date_time)  
  
order by sum(inv.amount) desc"

```

```

        limit 5"

    values = (month_number,)
    cursor.execute(csqli, values)
    return cursor.fetchall()
except mysql.connector.Error as error:
    st.error(f'Error getting medical office details: {error}')
finally:
    if connection.is_connected():
        cursor.close()
        connection.close()

def generate_average_revenue(begin_dt, end_dt):
    try:
        # Connect to MySQL database
        connection = connect_to_database()
        cursor = connection.cursor(dictionary=True)
        csqli = """select ins.company , avg(inv.amount)
                    from APPOINTMENTS a, PATIENTS p, INSURANCE_COMPANIES ins,
INVOICES inv
                    where a.patient_id = p.pid
                    and p.ins_id = ins.ins_id
                    and a.appt_id = inv.appt_id
                    and date(a.appt_date_time) >= %s
                    and date(a.appt_date_time) <= %s
                    group by ins.company"""
        values = (begin_dt, end_dt)
        cursor.execute(csqli, values)
        return cursor.fetchall()
    except mysql.connector.Error as error:
        st.error(f'Error getting medical office details: {error}')
    finally:

```

```

    if connection.is_connected():
        cursor.close()
        connection.close()

#main front-end part
# Sidebar navigation
st.sidebar.title("Navigation")

option = st.sidebar.radio("Go to:", ("Home", "Employee and Facility Management", "Patient Management", "Management Reporting"))

# Main content
if option == "Home":
    st.title("Morris Health Services")

    st.write("Welcome to Morris Health Services. Please select an option from the sidebar to navigate.")

    # Add About Us section
    st.subheader("About Us")

    st.write("At MHS we provide comprehensive health services to the residents of northern New Jersey.")

elif option == "Employee and Facility Management":
    st.title("Welcome to Employee and Facility Management Portal at MHS")

    # Add Ask a Question section
    question_option = st.selectbox("What do you want to manage today?", ("EMPLOYEES", "Medical OFFICES", "Out Patient Surgery FACILITIES", "Insurance Companies"))

    if question_option == "EMPLOYEES":
        st.subheader("Employee Management Options")

        employee_option = st.radio("Select an option:", ("Add new employee", "Edit Employee Information", "View EMPLOYEES", "Employee Assignments"))

        if employee_option == "Add new employee":
            st.subheader("Add a New Employee")#shows everything related to add new employee

            # Collect employee information
            first_name = st.text_input("First Name")

```

```

middle_name = st.text_input("Middle Name")
last_name = st.text_input("Last Name")
ssn = st.text_input("Social Security Number (SSN)")
salary = st.number_input("Salary")
salary = int(salary) #changing into int
hire_date = st.date_input("Hire Date")
job_class = st.selectbox("Job Class", ("physician", "nurse", "HCP", "admin staff"))
street = st.text_input("Street")
city = st.text_input("City")
state = st.text_input("State")
zipcode = st.text_input("Zip Code")
primary_facility_options = get_primary_FACILITIES(job_class)
pf = st.selectbox("Primary Facility", primary_facility_options)
facid = pf.split(" ")[0]
facid = int(facid)
secondary_facility_options = get_secondary_FACILITIES()
secondary_FACILITIES = st.multiselect("Secondary
FACILITIES",secondary_facility_options) #to select multiple

# Save button to upload data to MySQL database
if st.button("Save"):
    try:
        # Connect to MySQL database
        connection = connect_to_database()
        cursor = connection.cursor()

        # Insert employee data into the database
        sql = "INSERT INTO EMPLOYEES (first_name, middle_name, last_name, ssn,
salary, hire_date, job_class, street, city, state, zip, facid) VALUES (%s, %s, %s, %s, %s, %s,
%s, %s, %s, %s, %s, %s)"

        values = (first_name, middle_name, last_name, ssn, salary, hire_date, job_class,
street, city, state, zipcode, facid)

        cursor.execute(sql, values)
        connection.commit()

```

```

        st.success("Employee information saved successfully.")
except mysql.connector.Error as error:
    st.error(f'Error saving employee information: {error}')
finally:
    if connection.is_connected():
        cursor.close()
        connection.close()
        st.write("MySQL connection is closed.")
elif employee_option == "Edit Employee Information":
    st.subheader("Edit Existing Employee Info")
    employee_names = get_all_employee_names()
    selected_employee = st.selectbox("Select an employee to edit:", employee_names)
    if selected_employee:
        employee_details = get_employee_details_by_name(selected_employee)
        if employee_details:
            st.write(f'Editing Employee: {selected_employee}')
            # Display existing employee information
            st.write("Existing Information:")
            st.write(f'SSN: {employee_details['ssn']}')
            st.write(f'Salary: {employee_details['salary']}')
            st.write(f'Hire Date: {employee_details['hire_date']}')
            st.write(f'Job Class: {employee_details['job_class']}')
            st.write(f'Street: {employee_details['street']}')
            st.write(f'City: {employee_details['city']}')
            st.write(f'State: {employee_details['state']}')
            st.write(f'Zip Code: {employee_details['zip']}')
            # Collect updated information
            new_ssn = st.text_input("New SSN", value=employee_details['ssn'])
            new_salary = st.number_input("New Salary", value=employee_details['salary'])
            new_hire_date = st.date_input("New Hire Date",
value=employee_details['hire_date'])

```

```

        #new_job_class = st.selectbox("New Job Class", ("physician", "nurse", "HCP",
"admin staff"), index=employee_details['job_class'])

        new_street = st.text_input("New Street", value=employee_details['street'])
        new_city = st.text_input("New City", value=employee_details['city'])
        new_state = st.text_input("New State", value=employee_details['state'])
        new_zipcode = st.text_input("New Zip Code", value=employee_details['zip'])

        # Update button to save changes
        if st.button("Update Information"):
            new_info = {
                'first_name': employee_details['first_name'],
                'middle_name': employee_details['middle_name'],
                'last_name': employee_details['last_name'],
                'ssn': new_ssn,
                'salary': new_salary,
                'hire_date': new_hire_date,
                #'job_class': new_job_class,
                'street': new_street,
                'city': new_city,
                'state': new_state,
                'zipcode': new_zipcode
            }
            update_employee_info(employee_details['empid'], new_info)

elif employee_option == "View EMPLOYEES":
    st.subheader("View EMPLOYEES")
    employee_details = get_all_employee_details()
    if employee_details:
        st.write("List of EMPLOYEES:")
        st.table(employee_details)
    else:
        st.write("No EMPLOYEES found.")

```



```

elif employee_option == "Employee Assignments":
    st.subheader("View Employee Assignments")
    employee_assignments = get_all_employee_assignments()
    if employee_assignments:
        st.write("List of Employee Assignments:")
        st.table(employee_assignments)
    else:
        st.write("No EMPLOYEES found.")

```

```

elif question_option == "Medical OFFICES":
    st.subheader("Medical OFFICES Management Options")
    office_option = st.radio("Select an option:", ("Add new office", "Edit existing office",
"View OFFICES"))
    if office_option == "Add new office":
        st.subheader("Add a New Office")
        # Collect office information
        size = st.number_input("Office_Size")
        size = int(size)
        ftype = "office"
        street = st.text_input("Street")
        city = st.text_input("City")
        state = st.text_input("State")
        zipcode = st.text_input("Zip Code")
        office_count = st.number_input("Office_Count")
        office_count = int(office_count)

        if st.button("Save"):
            try:
                # Connect to MySQL database

```

```

connection = connect_to_database()

cursor = connection.cursor()

# Insert employee data into the database

sql1 = "INSERT INTO FACILITIES (size,ftype,street, city, state, zip) VALUES
(%s, %s, %s, %s, %s, %s)"

values = (size,ftype,street, city, state, zipcode)

cursor.execute(sql1, values)

sql3 = "SELECT MAX(facid) from FACILITIES"

cursor.execute(sql3)

facid = cursor.fetchone()[0]

sql2 = "INSERT INTO OFFICES (facid, office_count) VALUES (%s, %s)"

values = (facid, office_count)

cursor.execute(sql2, values)

connection.commit()

st.success("Office information saved successfully.")

except mysql.connector.Error as error:

    st.error(f'Error saving office information: {error}')

finally:

    if connection.is_connected():

        cursor.close()

        connection.close()

        st.write("MySQL connection is closed.")

elif office_option == "Edit existing office":

    st.subheader("Edit Existing Medical OFFICES")

    medical_office_details = get_medical_office_details()

    selected_office = st.selectbox("Select medical office to edit:", [office['facid'] for office
in medical_office_details])

    selected_office_details = next((office for office in medical_office_details if
office['facid'] == selected_office), None)

    if selected_office_details:

```

```

st.write(f'Facility ID: {selected_office_details['facid']}')
st.write(f'Size: {selected_office_details['size']}')
st.write(f'Street: {selected_office_details['street']}')
st.write(f'City: {selected_office_details['city']}')
st.write(f'State: {selected_office_details['state']}')
st.write(f'Zip: {selected_office_details['zip']}')

# Collect updated information
new_size = st.text_input("New Size", value=selected_office_details['size'])
new_street = st.text_input("New Street", value=selected_office_details['street'])
new_city = st.text_input("New City", value=selected_office_details['city'])
new_state = st.text_input("New State", value=selected_office_details['state'])
new_zip = st.text_input("New Zip", value=selected_office_details['zip'])

# Update button to save changes
if st.button("Update Information"):
    new_info = {
        'size': new_size,
        'street': new_street,
        'city': new_city,
        'state': new_state,
        'zip': new_zip
    }
    update_medical_office_info(selected_office_details['facid'], new_info)
else:
    st.write("No medical office found.")

elif office_option == "View OFFICES":
    st.subheader("View Medical OFFICES")
    medical_office_details = get_medical_office_details()
    if medical_office_details:
        st.write("List of Medical OFFICES:")

```

```

        st.table(medical_office_details)
    else:
        st.write("No medical OFFICES found.")

elif question_option == "Out Patient Surgery FACILITIES":
    st.subheader("Out Patient Surgery FACILITIES Management Options")
    office_option = st.radio("Select an option:", ("Add new OPS", "Edit existing OPS",
"View OPS"))
    if office_option == "Add new OPS":
        st.subheader("Add a New OPS")
        # Collect office information
        size = st.number_input("Office_Size")
        size = int(size)
        ftype = "office"
        street = st.text_input("Street")
        city = st.text_input("City")
        state = st.text_input("State")
        zipcode = st.text_input("Zip Code")
        room_count = st.number_input("Room_Count")
        room_count = int(room_count)
        procedures = st.text_input("Procedures")

    if st.button("Save"):
        try:
            # Connect to MySQL database
            connection = connect_to_database()
            cursor = connection.cursor()

            # Insert employee data into the database
            sql1 = "INSERT INTO FACILITIES (size,ftype,street, city, state, zip) VALUES
(%s, %s, %s, %s, %s, %s)"
            values = (size,ftype,street, city, state, zipcode)

```

```

        cursor.execute(sql1, values)

        sql3 = "SELECT MAX(facid) from FACILITIES"

        cursor.execute(sql3)

        facid = cursor.fetchone()[0]

        sql2 = "INSERT INTO OUTPATIENT_SURGERY_ROOMS (facid,
room_count, procedures) VALUES (%s, %s, %s)"

        values = (facid, room_count, procedures)

        cursor.execute(sql2, values)

        connection.commit()

        st.success("OPS information saved successfully.")

except mysql.connector.Error as error:

    st.error(f'Error saving OPS information: {error}')

finally:

    if connection.is_connected():

        cursor.close()

        connection.close()

        st.write("MySQL connection is closed.")

elif office_option == "Edit existing OPS":

    st.subheader("Edit Existing OPS")

    medical_ops_details = get_medical_ops_details()

    selected_office = st.selectbox("Select medical ops to edit:", [office['facid'] for office
in medical_ops_details])

    selected_office_details = next((office for office in medical_ops_details if
office['facid'] == selected_office), None)

    if selected_office_details:

        st.write(f'Facility ID: {selected_office_details['facid']}')

        st.write(f'Size: {selected_office_details['size']}')

        st.write(f'Street: {selected_office_details['street']}')

        st.write(f'City: {selected_office_details['city']}')

        st.write(f'State: {selected_office_details['state']}')

```

```

st.write(f'Zip: {selected_office_details['zip']}')

# Collect updated information

new_size = st.text_input("New Size", value=selected_office_details['size'])
new_street = st.text_input("New Street", value=selected_office_details['street'])
new_city = st.text_input("New City", value=selected_office_details['city'])
new_state = st.text_input("New State", value=selected_office_details['state'])
new_zip = st.text_input("New Zip", value=selected_office_details['zip'])

# Update button to save changes
if st.button("Update Information"):
    new_info = {
        'size': new_size,
        'street': new_street,
        'city': new_city,
        'state': new_state,
        'zip': new_zip
    }
    update_medical_ops_info(selected_office_details['facid'], new_info)
else:
    st.write("No medical office found.")

elif office_option == "View OPS":
    st.subheader("View Medical OPS")
    medical_office_details = get_medical_ops_details()
    if medical_office_details:
        st.write("List of Medical OPS:")
        st.table(medical_office_details)
    else:
        st.write("No medical OFFICES found.")

elif question_option == "Insurance Companies":

```

```

st.subheader("Insurance Company Management Options")

insurance_option = st.radio("Select an option:", ("Add New Insurance Company", "Edit Insurance Company", "View Insurance Companies"))

if insurance_option == "Add New Insurance Company":

    st.subheader("Add New Insurance Company")

    company = st.text_input("Company")

    street = st.text_input("Street")

    city = st.text_input("City")

    state = st.text_input("State")

    zip_code = st.text_input("Zip Code")

    if st.button("Add Insurance Company"):

        add_insurance_company(company, street, city, state, zip_code)

elif insurance_option == "Edit Insurance Company":

    st.subheader("Edit Insurance Company")

    INSURANCE_COMPANIES = get_insurance_company_details()

    selected_company = st.selectbox("Select insurance company to edit:",
[company['company'] for company in INSURANCE_COMPANIES])

    selected_company_details = next((company for company in
INSURANCE_COMPANIES if company['company'] == selected_company), None)

    if selected_company_details:

        st.write(f"Insurance Company ID: {selected_company_details['ins_id']}")

        st.write(f"Company: {selected_company_details['company']}")

        st.write(f"Street: {selected_company_details['street']}")

        st.write(f"City: {selected_company_details['city']}")

        st.write(f"State: {selected_company_details['state']}")

        st.write(f"Zip: {selected_company_details['zip']}")

        # Collect updated information

        new_name = st.text_input("New Company Name",
value=selected_company_details['company'])

        new_street = st.text_input("New Street", value=selected_company_details['street'])

        new_city = st.text_input("New City", value=selected_company_details['city'])

        new_state = st.text_input("New State", value=selected_company_details['state'])

```

```

new_zip = st.text_input("New Zip", value=selected_company_details['zip'])

# Update button to save changes
if st.button("Update Information"):
    new_info = {
        'company': new_name,
        'street': new_street,
        'city': new_city,
        'state': new_state,
        'zip': new_zip
    }
    update_insurance_company_info(selected_company_details['ins_id'], new_info)
else:
    st.write("No insurance company found.")
elif insurance_option == "View Insurance Companies":
    st.subheader("View Insurance Companies")
    INSURANCE_COMPANIES = get_insurance_company_details()
    if INSURANCE_COMPANIES:
        st.write("List of Insurance Companies:")
        st.table(INSURANCE_COMPANIES)
    else:
        st.write("No insurance companies found.")

elif option == "Patient Management":
    st.title("Welcome to Patient Management Portal at MHS")
    question_option = st.radio("Choose to manage?", ("PATIENTS", "APPOINTMENTS",
"Insurance_INVOICES"))
    if question_option == "PATIENTS":
        st.subheader("Add a new patient")
        first_name = st.text_input("First Name")
        middle_name = st.text_input("Middle Name")
        last_name = st.text_input("Last Name")

```



```
street = st.text_input("Street")
city = st.text_input("City")
state = st.text_input("State")
zipcode = st.text_input("Zip Code")
```

```
PHYSICIANS = get_primary_physician_details()
physician_names = [physician['full_name'] for physician in PHYSICIANS]
primary_physician = st.selectbox("Primary Physician", physician_names)
connection = connect_to_database()
cursor = connection.cursor()
sql3 = "SELECT empid from EMPLOYEES where CONCAT(first_name, ' ', last_name)
= %s"
values = (primary_physician,)
cursor.execute(sql3, values)
primary_physician_id = cursor.fetchall()[0][0]
```

```
companies = get_INSURANCE_COMPANIES()
company_names = [company['company'] for company in companies]
insurance_company = st.selectbox("Insurance Company", company_names)
sql4 = "SELECT ins_id from INSURANCE_COMPANIES where company = %s"
values = (insurance_company,)
cursor.execute(sql4, values)
ins_id = cursor.fetchall()[0][0]
cursor.close()
connection.close()
```

```
if st.button("Add Patient"):
    add_patient(first_name, middle_name, last_name, street, city, state, zipcode,
primary_physician_id, ins_id)
```

```

elif question_option == "APPOINTMENTS":

    appt_option = st.radio("Do you want to schedule an appointment or update an
appointment with amount?", ("Create", "Update"))

    if(appt_option=="Create"):

        st.subheader("Create an appointment")

        date_input = st.date_input("Select Date")

        time_input = st.time_input("Select Time")

        datetime_obj = datetime.combine(date_input, time_input)

        formatted_datetime = datetime_obj.strftime("%Y-%m-%d %H:%M:%S")

        description = st.text_input("Description")


PATIENTS = get_patient_details()

patient_names = [patient['full_name'] for patient in PATIENTS]

pname = st.selectbox("Patient", patient_names)

connection = connect_to_database()

cursor = connection.cursor()

sql3 = "SELECT pid from PATIENTS where CONCAT(first_name, ' ', last_name) =
%s"

values = (pname,)

cursor.execute(sql3,values)

patient_id = cursor.fetchall()[0][0]

cursor.close()

connection.close()


make_appointment = st.radio("Do you want to make an appointment with your
Primary Physician?", ("Yes", "No"))

connection = connect_to_database()

cursor = connection.cursor()

sql3 = "SELECT CONCAT(emp.first_name, ' ', emp.last_name) as doc_name from
PATIENTS p, PHYSICIANS phy, EMPLOYEES emp where p.primary_physician_id =
phy.empid and phy.empid = emp.empid and p.pid = '%s'"

values = (patient_id,)

```

```

cursor.execute(sql3,values)
doctor = cursor.fetchall()[0][0]
cursor.close()
connection.close()
if make_appointment == "Yes":
    st.write("Great! Let's proceed to schedule your appointment with ",doctor)
    connection = connect_to_database()
    cursor = connection.cursor()
    sql3 = "SELECT empid from EMPLOYEES where CONCAT(first_name, ' ',
last_name) = %s"
    values = (doctor,)
    cursor.execute(sql3,values)
    physician_id = cursor.fetchall()[0][0]
    cursor.close()
    connection.close()

    connection = connect_to_database()
    cursor = connection.cursor()
    sql3 = "SELECT facid from EMPLOYEES where empid = %s"
    values = (physician_id,)
    cursor.execute(sql3,values)
    facid = cursor.fetchall()[0][0]
    cursor.close()
    connection.close()

    connection = connect_to_database()
    cursor = connection.cursor()
    sql3 = "SELECT street, city, state, zip from FACILITIES where facid = %s"
    values = (facid,)
    cursor.execute(sql3,values)
    address = cursor.fetchall()

```

```
address = address[0]
address = " ".join(address)
cursor.close()
connection.close()

st.write("Location :",address)
```

else:

```
st.write("No worries, Let's go ahead and book with other physician")
PHYSICIANS = get_primary_physician_details()
physician_names = [physician['full_name'] for physician in PHYSICIANS]
physician = st.selectbox("Choose a Physician", physician_names)

connection = connect_to_database()
cursor = connection.cursor()

sql3 = "SELECT empid from EMPLOYEES where CONCAT(first_name, ' ',
last_name) = %s"
values = (physician,)
cursor.execute(sql3,values)
physician_id = cursor.fetchall()[0][0]
cursor.close()
connection.close()

connection = connect_to_database()
cursor = connection.cursor()

sql3 = "SELECT facid from EMPLOYEES where empid = %s"
values = (physician_id,)
cursor.execute(sql3,values)
facid = cursor.fetchall()[0]
```

```
facid = facid[0]
cursor.close()
connection.close()
```

```
connection = connect_to_database()
cursor = connection.cursor()
sql3 = "SELECT street, city, state, zip from FACILITIES where facid = %s"
values = (facid,)
cursor.execute(sql3,values)
address = cursor.fetchall()
address = address[0]
address = " ".join(address)
cursor.close()
connection.close()
```

```
st.write("Location :",address)
```

```
if st.button("Confirm Appointment"):
```

```
    add_appointment(formatted_datetime, description, patient_id, physician_id, facid)
```

```
else:
```

```
    st.subheader("Update an appointment with amount")
    connection = connect_to_database()
    cursor = connection.cursor()
    cursor.execute("SELECT appt_id, appt_date_time FROM APPOINTMENTS")
    APPOINTMENTS = cursor.fetchall()
    cursor.close()
    connection.close()
```

```
appointment_options = {appt[0]: appt[1] for appt in APPOINTMENTS}
```

```
selected_appt_id = st.selectbox("Select Appointment",  
list(appointment_options.keys()))
```

```
if selected_appt_id:
```

```
    # Display selected appointment details
```

```
    selected_appt_date_time = appointment_options[selected_appt_id]
```

```
    st.write("Selected Appointment ID:", selected_appt_id)
```

```
    st.write("Selected Appointment Date Time:", selected_appt_date_time)
```

```
    selected_appt_date_time= selected_appt_date_time.strftime('%Y-%m-%d')
```

```
appointment_cost = int(st.number_input("Appointment Cost"))
```

```
if st.button("Update Appointment Cost"):
```

```
    add_invoice(selected_appt_date_time, appointment_cost, selected_appt_id)
```

```
else:
```

```
    st.subheader("Generate INVOICES to Insurance Company")
```

```
    INSURANCE_COMPANIES = get_insurance_company_details()
```

```
    selected_company = st.selectbox("Select the insurance company:",  
[company['company'] for company in INSURANCE_COMPANIES])
```

```
    selected_company_details = next((company for company in  
INSURANCE_COMPANIES if company['company'] == selected_company), None)
```

```
    date_input = st.date_input("Select Date")
```

```
    ins_id = selected_company_details['ins_id']
```

```
if st.button("Generate Invoice"):
```

```
    result = display_totals(date_input,ins_id)
```

```
    st.table(result)
```

```
#Management Reporting
```

```
elif option == "Management Reporting":
```

```
    st.title("Welcome to Management Reporting Portal at MHS")
```

```
    question_option = st.radio("Choose to generate?", ("Revenue Report", "Appointment List  
by Physician", "Appointment List by Facility", "5 best days in the month", "Average daily  
revenue for insurance companies"))
```

```
    if question_option == "Revenue Report":
```

```
        st.subheader("Revenue Report")
```

```
        date_input = st.date_input("Select Date")
```

```
        f_dt = date_input.strftime('%Y-%m-%d')
```

```
        if st.button("Generate Revenue Report"):
```

```
            result = revenue_report(f_dt)
```

```
            st.table(result)
```

```
elif question_option == "Appointment List by Physician":
```

```
    st.subheader("Appointment List by Physician")
```

```
    date_input = st.date_input("Select Date")
```

```
    f_dt = date_input.strftime('%Y-%m-%d')
```

```
PHYSICIANS = get_primary_physician_details()
```

```
physician_names = [physician['full_name'] for physician in PHYSICIANS]
```

```
physician = st.selectbox("Choose a Physician", physician_names)
```

```
connection = connect_to_database()
```

```
cursor = connection.cursor()
```

```
sql3 = "SELECT empid from EMPLOYEES where CONCAT(first_name, ' ', last_name)  
= %s"
```

```
values = (physician,)
```

```
cursor.execute(sql3, values)
```

```
physician_id = cursor.fetchall()[0][0]
```

```
cursor.close()
```

```
connection.close()
```

```
if st.button("Generate Appointment List"):
```

```
    result = apt_list_physician(f_dt,physician_id)
```

```
    st.table(result)
```

```
elif question_option == "Appointment List by Facility":
```

```
    st.subheader("Appointment List by Facility")
```

```
    date_input = st.date_input("Select Begin Date")
```

```
    begin_dt = date_input.strftime('%Y-%m-%d')
```

```
    date_input = st.date_input("Select End Date")
```

```
    end_dt = date_input.strftime('%Y-%m-%d')
```

```
    medical_office_details = get_facility_details()
```

```
    selected_office = st.selectbox("Select the facility:", [office['facid'] for office in  
medical_office_details])
```

```
    selected_office_details = next((office for office in medical_office_details if  
office['facid'] == selected_office), None)
```

```
    facid = selected_office_details['facid']
```

```
if st.button("Generate Appointment List"):
```

```
    result = apt_list_facility(begin_dt,end_dt,facid)
```

```
    st.table(result)
```

```
elif question_option == "5 best days in the month":
```

```
    st.subheader("5 best days in the month wrt Revenue")
```

```
    months = [datetime(2000, i, 1).strftime('%B') for i in range(1, 13)]
```

```
    selected_month = st.selectbox("Select a month", months)
```

```
    month_number = datetime.strptime(selected_month, '%B').month
```



```
if st.button("Generate the best 5 days"):
```

```
    result = generate_best_days(month_number)
```

```
    st.table(result)
```

```
elif question_option == "Average daily revenue for insurance companies":
```

```
    st.subheader("Average daily revenue for insurance companies")
```

```
    date_input = st.date_input("Select Begin Date")
```

```
    begin_dt = date_input.strftime('%Y-%m-%d')
```

```
    date_input = st.date_input("Select End Date")
```

```
    end_dt = date_input.strftime('%Y-%m-%d')
```

```
if st.button("Generate Average Revenue"):
```

```
    result = generate_average_revenue(begin_dt, end_dt)
```

```
    st.table(result)
```

## DATABASE

### CREATETABLES

The screenshot shows the MySQL Workbench interface. The 'Query 1' editor contains the following SQL script:

```
113 FOREIGN KEY (PATIENT_ID) REFERENCES PATIENTS(PID),
114 FOREIGN KEY (PHYSICIAN_ID) REFERENCES PHYSICIANS (EMPID),
115 FOREIGN KEY (FACID) REFERENCES EMPLOYEE_FACILITIES(FACID));
116
117
118 DROP TABLE IF EXISTS INVOICES;
119 CREATE TABLE INVOICES(
120     INV_ID INT PRIMARY KEY AUTO_INCREMENT,
121     INV_DATE DATE,
122     AMOUNT DECIMAL(10, 2),
123     APPT_ID INT,
124     FOREIGN KEY (APPT_ID) REFERENCES APPOINTMENTS(APPT_ID));
```

The 'Output' pane at the bottom shows the execution results:

#	Time	Action	Message
42	12:08:29	DROP TABLE IF EXISTS INSURANCE_COMPANIES	0 row(s) affected, 1 warning(s): 1051 Unknown table 'MHS.INSURANCE'
43	12:08:29	CREATE TABLE INSURANCE_COMPANIES( INV_ID INT PRIMARY KEY AUTO_INCREMENT,	0 row(s) affected
44	12:08:29	DROP TABLE IF EXISTS PATIENTS	0 row(s) affected, 1 warning(s): 1051 Unknown table 'MHS.PATIENTS'
45	12:08:29	CREATE TABLE PATIENTS( PID INT PRIMARY KEY AUTO_INCREMENT, FIRST...	0 row(s) affected
46	12:08:29	DROP TABLE IF EXISTS APPOINTMENTS	0 row(s) affected, 1 warning(s): 1051 Unknown table 'MHS.APPOINTME'
47	12:08:29	CREATE TABLE APPOINTMENTS( APPT_ID INT PRIMARY KEY AUTO_INCREMENT,	0 row(s) affected
48	12:08:29	DROP TABLE IF EXISTS INVOICES	0 row(s) affected, 1 warning(s): 1051 Unknown table 'MHS.INVOICES'
49	12:08:29	CREATE TABLE INVOICES( INV_ID INT PRIMARY KEY AUTO_INCREMENT, INV...	0 row(s) affected

# INSERT DATA

docker x

dit View Query Database Server Tools Scripting Help

insert\_offices insert\_out\_patient\_surgery\_roo... insert\_employees insert\_physicians insert\_nurses insert\_hcp insert\_admin...

AS

objects

MHS

Tables

Views

Stored Procedures

Functions

ys

```
1 -- sample data for admin_staff
2 INSERT INTO ADMIN_STAFF (empid, job_type, last_name, salary) VALUES
3 (3, 'Receptionist'),
4 (9, 'Receptionist'),
5 (14, 'Administrative Assistant'),
6 (18, 'Administrative Assistant'),
7 (33, 'Medical Secretary'),
8 (37, 'Billing Specialist');
```

Automatic content disabled. Use the manually get current caret position toggle automatic

Context Help Snippets

iteration Schemas

iteration

ema: MHS

#	Time	Action	Message	Duration
51	12:13:52	INSERT INTO FACILITIES (size, ftype, street, city, state, zip) VALUES (1000, 'office', ...	20 row(s) affected Records: 20 Duplicates: 0 Warnings: 0	0.001
52	12:14:18	INSERT INTO OFFICES (facid, office_count) VALUES (1, 5), (2, 3), (3, 2), (6, 9), ...	12 row(s) affected Records: 12 Duplicates: 0 Warnings: 0	0.011
53	12:15:12	INSERT INTO OUTPATIENT_SURGERY_ROOMS (facid, room_count, procedures)...	8 row(s) affected Records: 8 Duplicates: 0 Warnings: 0	0.001
54	12:15:48	INSERT INTO EMPLOYEES (ssn, first_name, middle_name, last_name, salary, hire_date)...	40 row(s) affected Records: 40 Duplicates: 0 Warnings: 0	0.011
55	12:16:21	INSERT INTO PHYSICIANS (empid, specialty, initial_board_certification_date) VALU...	21 row(s) affected Records: 21 Duplicates: 0 Warnings: 0	0.001
56	12:16:37	INSERT INTO NURSES (empid, certification) VALUES (2, 'Registered Nurse'), (5, 'Li...	9 row(s) affected Records: 9 Duplicates: 0 Warnings: 0	0.001
57	12:16:58	INSERT INTO HCP (empid, PRACTICE_AREA) VALUES (6, 'Physical Therapist'), (1...	4 row(s) affected Records: 4 Duplicates: 0 Warnings: 0	0.011
58	12:17:17	INSERT INTO ADMIN_STAFF (empid, JOB_TYPE) VALUES (3, 'Receptionist'), (9, '...	6 row(s) affected Records: 6 Duplicates: 0 Warnings: 0	0.011

Info Session

docker x

e Edit View Query Database Server Tools Scripting Help

insert\_admin\_staff insert\_employee\_facilities insert\_insurance\_companies insert\_patients insert\_appointments insert\_invoices

Limit to 1000 rows

Filter objects

MHS

Tables

Views

Stored Procedures

Functions

ys

```
1 -- sample data for invoices table
2 INSERT INTO INVOICES (inv_date, amount, appt_id) VALUES
3 ('2024-05-25', 100.00, 1),
4 ('2024-05-28', 150.00, 2),
5 ('2024-05-30', 200.00, 3),
6 ('2024-06-02', 75.00, 4),
7 ('2024-06-05', 120.00, 5),
8 ('2024-06-08', 90.00, 6),
9 ('2024-06-10', 180.00, 7),
10 ('2024-06-12', 95.00, 8);
```

Automatic content disabled. Use the manually get current caret position toggle automatic

Context Help Snippets

Administration Schemas

Information

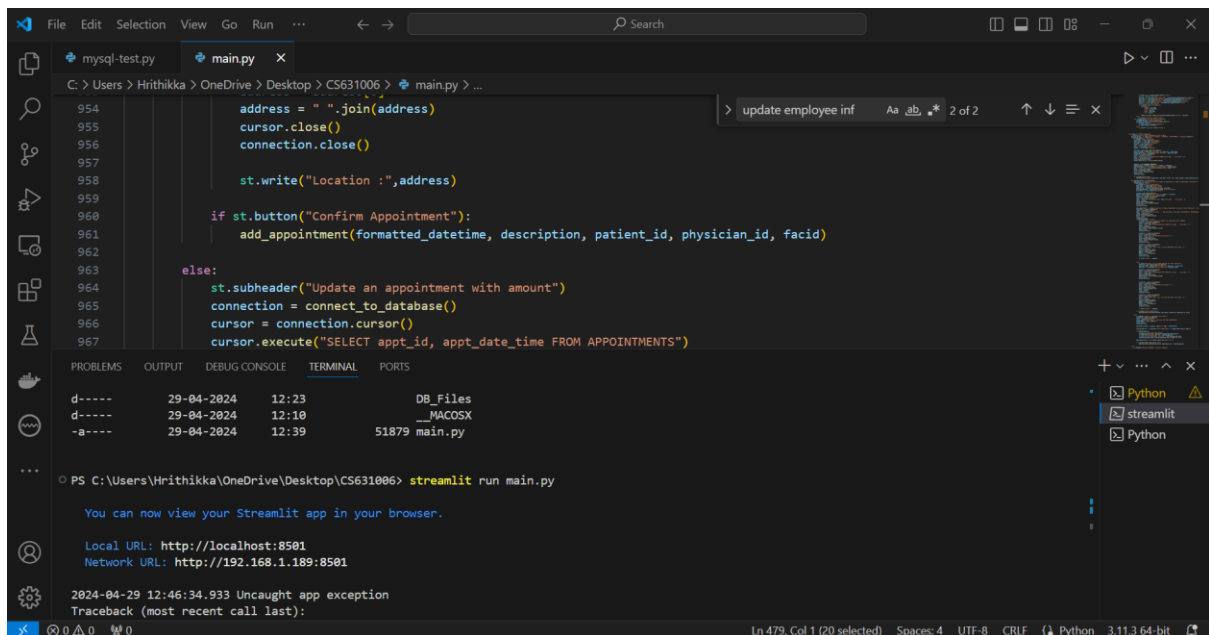
Schema: MHS

#	Time	Action	Message	Duration / F
60	12:18:17	INSERT INTO INSURANCE_COMPANIES (company, street, city, state, zip) VALU...	10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0	0.016 sec
61	12:18:38	INSERT INTO PATIENTS (first_name, middle_name, last_name, street, city, state, ...	40 row(s) affected Records: 40 Duplicates: 0 Warnings: 0	0.032 sec
62	12:18:54	INSERT INTO APPOINTMENTS (appt_date_time, appt_description, patient_id, ph...	20 row(s) affected Records: 20 Duplicates: 0 Warnings: 0	0.016 sec
63	12:19:12	INSERT INTO INVOICES (inv_date, amount, appt_id) VALUES ('2024-05-25', 100...	Error Code: 1452. Cannot add or update a child row: a foreign key constraint fails (...	0.016 sec
64	12:21:30	select * from appointments LIMIT 0, 1000	Error Code: 1146. Table 'MHS.appointments' doesn't exist	0.000 sec
65	12:21:50	select * from APPOINTMENTS LIMIT 0, 1000	20 row(s) returned	0.000 sec /
66	12:23:37	INSERT INTO INVOICES (inv_date, amount, appt_id) VALUES ('2024-05-25', 100...	20 row(s) affected Records: 20 Duplicates: 0 Warnings: 0	0.015 sec
67	12:23:37	select * from APPOINTMENTS LIMIT 0, 1000	20 row(s) returned	0.000 sec /

Object Info Session

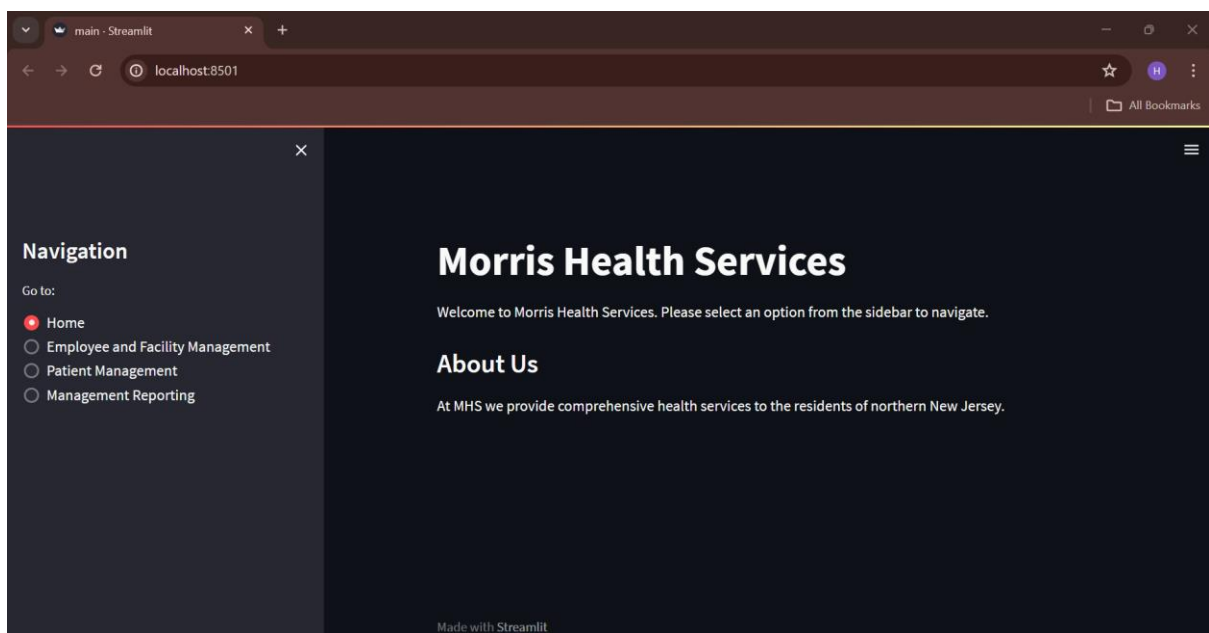
Query Completed

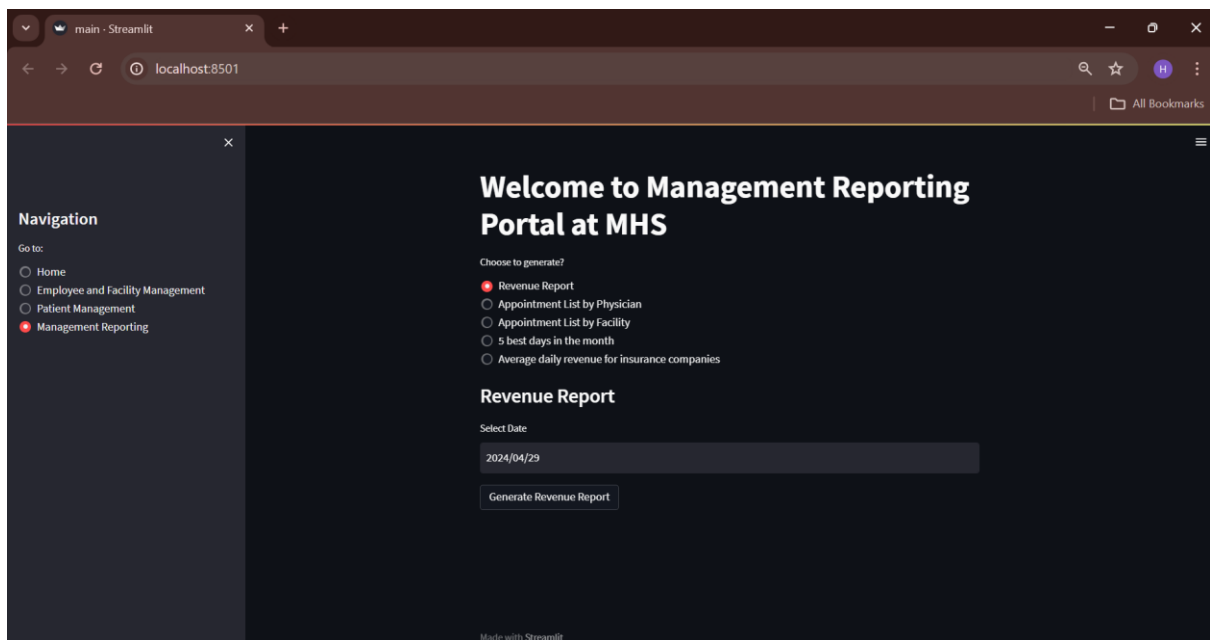
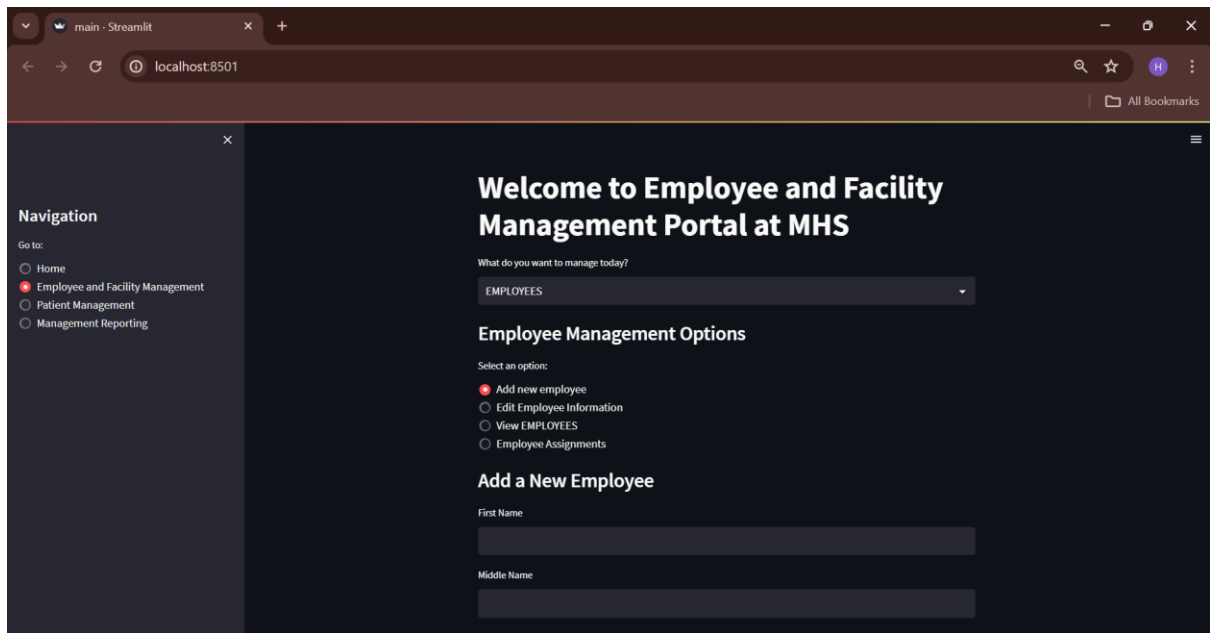
## STREAMLIT EXECUTION



```
File Edit Selection View Go Run ... Search
mysql-test.py main.py x
C:\Users\Hrithikka> OneDrive\Desktop\CS631006> main.py > ...
954 address = " ".join(address)
955 cursor.close()
956 connection.close()
957
958 st.write("Location :",address)
959
960 if st.button("Confirm Appointment"):
961     add_appointment(formatted_datetime, description, patient_id, physician_id, facid)
962
963 else:
964     st.subheader("Update an appointment with amount")
965     connection = connect_to_database()
966     cursor = connection.cursor()
967     cursor.execute("SELECT appt_id, appt_date_time FROM APPOINTMENTS")
968
969 PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
d----- 29-04-2024 12:23 DB_Files
d----- 29-04-2024 12:10 _MACOSX
-a----- 29-04-2024 12:39 51879 main.py
...
PS C:\Users\Hrithikka\OneDrive\Desktop\CS631006> streamlit run main.py
You can now view your Streamlit app in your browser.
Local URL: http://localhost:8501
Network URL: http://192.168.1.189:8501
2024-04-29 12:46:34.933 Uncaught app exception
Traceback (most recent call last):
Ln 479, Col 1 (20 selected) Spaces: 4 UTF-8 CRLF Python 3.11.3 64-bit
```

## APPLICATION OUTPUT





Final Project Phase III

Discussions: CS643862-Cloud C

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localhost:8501

All Bookmarks

Navigation

Go to:

Home

Employee and Facility Management

Patient Management

Management Reporting

edit employee information

View EMPLOYEES

Employee Assignments

View EMPLOYEES

List of EMPLOYEES:

	empid	ssn	first_name	middle_name	last_name	salary	hire_date	job_class	facid
0	1	123456789	John	Doe	Smith	60000	2020-01-01	physician	1
1	2	987654321	Jane	Mary	Johnson	50000	2020-02-01	nurse	2
2	3	456789123	Michael	David	Brown	40000	2020-03-01	admin staff	3
3	4	789123456	Emily	Elizabeth	Taylor	45000	2020-04-01	physician	4
4	5	234567890	Christopher	Robert	Anderson	55000	2020-05-01	nurse	5
5	6	678901234	Jessica	Michelle	Martinez	48000	2020-06-01	HCP	6
6	7	345678901	Daniel	William	Garcia	42000	2020-07-01	physician	7
7	8	901234567	Sarah	Jennifer	Lopez	52000	2020-08-01	nurse	8

main - Streamlit

localhost:8501

All Bookmarks

Navigation

Go to:

Home

Employee and Facility Management

Patient Management

Management Reporting

Choose to manage?

PATIENTS

APPOINTMENTS

Insurance\_INVOICES

Add a new patient

First Name

Middle Name

Last Name

Street

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localhost:8501

All Bookmarks

Navigation

Go to:

Home

Employee and Facility Management

Patient Management

Management Reporting

Welcome to Management Reporting Portal at MHS

Choose to generate?

Revenue Report

Appointment List by Physician

Appointment List by Facility

5 best days in the month

Average daily revenue for insurance companies

Revenue Report

Select Date

2024/06/18

Generate Revenue Report

	facid	street	city	state	zip	total
0	3	789 Oak St	Chicago	IL	60601	130.00

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localhost:8501

All Bookmarks

Navigation

Go to:

Home

Employee and Facility Management

Patient Management

Management Reporting

Average daily revenue for insurance companies

Select Begin Date

2024/05/01

Select End Date

2024/06/01

Generate Average Revenue

	company	avg(inv.amount)
0	Allstate Insurance	85.000000
1	American Family Insurance	110.000000
2	Farmers Insurance	180.000000
3	Geico Insurance	75.000000
4	Liberty Mutual Insurance	120.000000
5	Nationwide Insurance	90.000000
6	Progressive Insurance	157.500000
7	State Farm Insurance	155.000000
8	Travelers Insurance	130.000000
9	USAA Insurance	95.000000

Final Project Phase III

Discussions: CS643862-Cloud C

main - Streamlit

localhost:8501

All Bookmarks

Navigation

Go to:

Home

Employee and Facility Management

Patient Management

Management Reporting

Welcome to Management Reporting Portal at MHS

Choose to generate?

Revenue Report

Appointment List by Physician

Appointment List by Facility

5 best days in the month

Average daily revenue for insurance companies

5 best days in the month wrt Revenue

Select a month

June

Generate the best 5 days

	DAY	TOTAL_REVENUE
0	15	180.00
1	5	140.00
2	10	125.00
3	8	105.00
4	18	100.00