

CS 6314 - Assignment#4

Due Date: 12/3/25, 11:59 pm

In this assignment, you are supposed to develop a web application for travel deals using HTML, CSS, Javascript, jQuery, XML,JSON, Ajax, PHP and Mysql. The app should have 7 web pages, including stays, flights, contact-us, register, login, cart and my-account

Using an external css (mystyle.css), add the following layout to all web pages. Please note for the navigation bar, you must have links to all 7 web pages in your web application.

Header	
Horizontal Navigation Bar	
Side	Main Content
Footer	

1. Add a register web page to your web application to register users. You should ask each user to enter Phone number, Password , FirstName, LastName, Date of birth, Email, and Gender (as radio button) . Before registering each user, you should validate the user's inputs as following
 - User must enter Phone number, Password , FirstName, LastName, Date of birth, and Email. Gender is not a required user input.
 - Phone number is a unique number. User can not use a phone number that already has been used by another user.
 - Phone number must be formatted as ddd-ddd-dddd
 - User must enter the same Password two times.
 - The Password must be at least 8 characters.
 - Date of birth must have 2 digits for month, 2 digits for day, and four digits for year
 - Email must contain @ and .com

If the user inputs are not valid, prompt the user. After validating the user's inputs, you should insert the user's information into the "users" table in your database. Users table has 7 fields including Phone number, Password , FirstName, LastName, Date of birth, Gender, and Email. Phone number is a unique number in the table. After inserting the above information into the table successfully, you should prompt the user. The User should be able to log in to your web application

using her/his Phone number and the password. Phone number for the admin should be 222-222-2222.

2. Display current local date and time in your web application.
3. After login to the web application, the user should be able to see his/her first name, and last name in all webpages.
4. After login to the web application, user should be able to submit a comment in the contact page. The comment must be at least 10 characters. You should validate the user input when the user clicks a "submit" button in the contact page. If the user doesn't enter valid information as specified above or did not login to the web application, you must prompt the user to login and enter valid information. After validating the user input, assign a unique number (contact-id) to the comment and store Contact-id, Phone number, FirstName, LastName, Date of birth, Email, and Gender in a XML file
5. Allow users to change font size of main content and background color of your web application.
6. Create a JSON file for the all available flights. The JSON file should include information about available flights including flight-id, origin, destination, departure date, arrival date, departure time, arrival time, number of available seats and price for at least 50 flights between a city in Texas and a city in California between Sep 1, 2024 to Dec 1st 2024. The admin should be able to load the JSON file into the "flights" table in the database after login to the webpage and in the my-account page. Flights table should have 9 fields, including flight-id, origin, destination, departure date, arrival date, departure time, arrival time, number of available seats and price.
7. After login to the web application, in the flight webpage, the user should be able to choose the type of trip. If the user chooses one way trip, the user should be able to enter the origin, destination, and departure date. If the user chooses a round trip, the user should be able to enter the origin, destination, departure date for departing flight and arriving flight. In the flight webpage, there should be a passenger icon. If the user clicks on the passenger icon, a form should be displayed. In this form, the user also should be able to enter the number of passengers for each category (adults, children, or infants). When the user clicks search button, after validating the user inputs, you should display all the above information entered by the user. If any user input is not valid, you should inform the user.

Validate user inputs for this page as following

- The user must enter departure date anytime between Sep 1, 2024 to Dec 1st 2024.
- Origin and destination must be a city in Texas or California
- Number of passengers for each category can not be more than 4

- If the user selected a one way trip, when the user clicks the search button, if the entered information are valid, you should retrieve and display the information (flight-id, origin, destination, departure date, arrival date, departure time, arrival time, and number of available seats) for all available flights from the requested origin to the requested destination that will depart on the requested departure date. The available flights should be retrieved from “flights” table in your database and must have enough available seats for all passengers. If there is not any available flights on the requested departure date, you should retrieve and display the information for available flights within 3 days before and after the requested departure date. The user should be able to select a flight and place it in the cart.
- In the cart page, you should display the information of the selected flight (flight-id, origin, destination, departure date, arrival date, departure time, arrival time). You also need to display total price for all passenger. Infant ticket is 10% of the adult ticket price. Children ticket is 70% of the adult ticket price. The user should be able to book the selected flight after entering first name, last name, date of birth and SSN for each passenger. When the user books a flight for all passengers, you need to assign a unique flight booking id to the selected flight in the cart and assign a unique ticket id to each ticket (one booking may have several tickets; one ticket for each passenger) and insert booking, tickets, and passenger information in “flight-booking” table , “ticket” table , and passenger table. You also need to update available number of seats of the booked flight in the flights table.

Flights table should have 9 fields, including flight-id, origin, destination, departure date, arrival date, departure time, arrival time, number of available seats and price. Flight-id is a unique number

Passenger table has 5 fields, including SSN, first name, last name, date of birth , and category (adults, children, or infants). SSN is a unique number

Flight-booking table has 3 fields, including flight-booking-id, flight-id, total price for all passengers

Tickets table has 4 fields, including ticket-id, flight-booking-id, SSN, and price for the passenger. Ticket-id is a unique number

- After booking the selected flight, you should display all the information of the booked flight (flight-booking-id, flight-id, origin, destination, departure date, arrival date, departure time, arrival time, total price for all passengers). You should also display ticket information for each passengers (ticket-id, flight-booking-id, SSN, first name, last name, date of birth, and price for each ticket) .

- If the user selected round trip, when the user clicks the search button, if the entered information are valid, you should also display the information (flight-id, origin, destination, departure date, arrival date, departure time, arrival time, and number of available seats) for all available flights from the requested origin to the requested destination that will depart on the requested departure date for for departing flight and returning flight. The available flights must have enough available seats for all passengers. If there is not any available flights on the requested departure date, you should display the information for available flights within 3 days before and after the requested departure date. The user should be able to select a flight as departing flight and a flight as returning flight. and place them in the cart.
- In the cart page, you should display the information of the selected departing flight and returning flight (flight-id, origin, destination, departure date, arrival date, departure time, arrival time). You also need to display total price for all passenger for both departing flight and returning flight. Infant ticket is 10% of the adult ticket price. Children ticket is 70% of the adult ticket price. The user should be able to book both departing flight and returning flight after entering first name, last name, date of birth and SSN for each passenger . When the user books a flight for all passengers, you need to assign a unique flight booking id to both departing flight and returning flight in the cart and assign a unique ticket id to each ticket (one booking may have several tickets; one ticket for departing flight and one ticket for returning flight for each passenger) and insert booking, tickets, and passenger information in “flight-booking” table , “ticket” table , and passenger table. You also need to update available number of seats of the booked flight in the flights table.

Flights table should have 9 fields, including flight-id, origin, destination, departure date, arrival date, departure time, arrival time, number of available seats and price. Flight-id is a unique number

Passenger table has 5 fields, including SSN, first name, last name, date of birth , and category (adults, children, or infants). SSN is a unique number

Flight-booking table has 3 fields, including flight-booking-id, flight-id, total price for all passengers

Tickets table has 4 fields, including ticket-id, flight-booking-id, SSN, and price for the passenger. Ticket-id is a unique number

- After booking the selected departing flight and returning flight, you should display all the information of the booked flights (flight-booking-id, flight-id, origin, destination, departure date, arrival date, departure time, arrival time, total price for all passengers). You should also display ticket information for departing flight and for returning flight for each passengers (ticket-id, flight-booking-id, SSN, first name, last name, date of birth, and price for each ticket.

8- After login to the web application, in the stays webpage, the user should be able to enter the name of city, the check in date, check out date, number of guesses for each category (adults, children, or infants). When the user clicks a search button, after validating the user inputs, you should display all the information entered by the user. You should also display the number of rooms the user needs. If any user input is not valid, you should inform the user.

Validate user inputs for this page as following

- The user must enter check in date, and check out date anytime between Sep 1, 2024 to Dec 1st 2024.
- The city must be a city in Texas or California
- Number of guesses can not be more than 2 for each room. However infants can stay with adults even if the number of guesses exceeds 2
- Create a XML file for the all available hotels. The XML file should include information about available hotels including hotel-id, hotel name, city and price per night for at least 20 hotels. For simplicity, we assume hotels always have available rooms. The admin should be able to load the XML file into the “hotels” table in the database after login to the webpage and in the my-account page. Hotels table should have 4 fields, including hotel-id, hotel name, city and price per night
- When the user clicks the search button, if the entered information are valid, you should retrieve and display the information (hotel-id, hotel name, city, and price per night) for all available hotels in the requested city from hotels table. The user should be able to select a hotel and place it in the cart. In the cart page, you should display the information of the selected hotel (hotel-id, hotel name, city, number of guesses per category, number of rooms, check in date, and check out date, price per night for each room , and total price).
- The user should be able to book the selected hotel after entering first name, last name, date of birth and SSN for each guess . When the user books a hotel for all guesses, you need to assign a unique hotel booking id to to the selected hotel in the cart and insert booking information in “hotel-booking” table and “guesses” table.

Hotel table has 4 fields, including hotel-id, hotel name, city, and price per night

Guesses table has 6 fields, including SSN, hotel-booking-id, first name, last name, date of birth , and category (adults, children, or infants). SSN is a unique number

Hotel-booking table has 7 fields, including hotel-booking-id, hotel-id, check in date, and check out date, number of rooms, price per night for each room , and total price

- After booking the selected hotel, you should display all the information of the

booked hotels (hotel-booking-id, hotel-id, hotel name, city, and price per night). You should also display number of rooms, check in date, and check out date, price per night for each room , and total price. You also need to display SSN, first name, last name, date of birth , and category (adults, children, or infants) for all guesses.

In the account page, the user should be able to retrieve all the information about booked flights and booked hotels using hotel-booking id and Flight-booking-id

In the account page, the user should be able to retrieve information of all passengers in a booked flights using Flight-booking-id

the user should be able to retrieve all the information of all booked flights and booked hotels for SEP 2024

the user should be able to retrieve all the information about booked flights for specific person using SSN

In the account page, the admin should be able to retrieved all booked flights will departure from a city in Texas from sep 2024 to oct 2024

In the account page, the admin should be able to retrieved all information for booked hotels in a a city in Texas from sep 2024 to oct 2024

In the account page, the admin should be able to retrieved all information for most expensive booked hotels

In the account page, the admin should be able to retrieved all booked flights with an infant passenger

In the account page, the admin should be able to retrieved all booked flights with an infant passenger and attest 5 children

In the account page, the admin should be able to retrieved all the information of most expensive booked flights

In the account page, the admin should be able to retrieve all the information about booked flights departure from a city in Texas and have no infant passenger

In the account page, the admin should be able to retrieved the number of booked flight that will arrive to a city in California on sep 2024 or oct 2024