TopTree Airline Project

TopTree Airlines database

TopTree Airlines needs a database to keep track of their flights. This will include regularly scheduled flights, actual flights, passengers, and their fleet of airplanes. Due to the fact that TTA is relatively small operation they maintain a somewhat simplified schedule of flights.

All regularly scheduled TTA flights have a unique flight number, a maximum passenger capacity (50), and the days of the week on which the flight is scheduled. It can be assumed that scheduled flights occur on a weekly basis.

For each airport that TTA uses there will be a unique three letter airport code, an address, and a phone number.

Notes:

- Time zone is not an issue
- There will not be two occurrences of the same flight on the same day
- You don't need to worry about fares

Required screen

Your system will provide the user with the following screens:

Flights- This screen will show all data for a flight. If the flight has already occurred, the actual data will be shown, otherwise the scheduled data will be shown.

Booking- This screen will allow a passenger to book a flight. All passengers that book flights on TTA are required to give name, email address, and billing information – address, phone number, and credit card number. User will be allowed to book multiple people on multiple flights during a single booking session. Seat assignments will be made at the time of booking based on the currently available seats. Overbooking is not allowed.

Departures- based on the current date, this screen will show all TTA flights scheduled to depart. Note that this includes all airports served by TTA.

Arrivals- based on the current date, this screen will show all TTA flights scheduled to arrive. Again, that this includes all airports served by TTA.

Passenger list – for a user selected flight, this screen will show a passenger list. It will include the passenger's name and seat assignment. Remember, this is for the whole flight. The assumption is that all passengers are on board for the whole flight.

Passengers- for a user selected passenger, this screen will show all data for the passenger and all past and future flights booked by the passengers. The listing will be in descending order by departure date.

Airports- for a user selected airport, this screen will show all flights (actual and scheduled) along with arrival and departure times. Again, the actual flights will display all actual data and scheduled flights will display all schedule data.

System requirements

Your system will responsible for creating and maintaining the database. This includes the ability to add, change, and delete all data in the database.

You will also be responsible for creating realistic data that represents all functionality of the system. This includes thing like full flights, canceled flights, etc.

Project requirement

Your system will use the MySQL database and will be written in PHP. All interaction with the system will be via a web browser.

- Demonstrations will be scheduled for the last week of classes.
- All group members are required to be present during the demonstration.
- Each member of the group must be prepared to demonstrate/discuss their portion of the system.
- Under No circumstances will you log on to MySQL during the demonstration.
- There must be realistic test data in the database that will allow all features of the system to be demonstrated in a timely manner. Any feature of the system that cannot be easily proven to function correctly will be counted as inoperative.

The moral is – when it's time for your demonstration you must be finished, have the necessary test data loaded in the database, be ready to demonstrate, and have your documentation with you.

Documentation

The following documentation is required and due at the beginning of the demonstration:

- A document describing the architecture of the application. This includes the database design (ER diagram), the data dictionary, and the function of all PHP scripts and a description of the interaction between them.
- A user's guide with sufficient detail to enable a new user to understand and use the system.
- A printout of the final version of the PHP scripts. The code must be well structured and appropriately commented. Each script must include the author's name, the date and a certification that the code is the work of the author.

Grading

You will be graded on the extent to which your system conforms to the requirements. You will also be graded on consistency, error checking, spelling, grammar, and system design. Remember, all members of your group will receive the same grade on the project. There will be no extensions given. All required materials are due at the beginning of the presentation.