

Database System and Web Lab

(15B17CI372)

Project Odd Semester 2021

AIRLINE TICKET RESERVATION SYSTEM



Project By:

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Application of Project:

This is an Airline Ticket Reservation System Project that was developed using HTML/CSS/PHP/MySQL. This ticket reservation system of an airline company serves as the online platform for the Passengers/Users for booking or reserve their tickets and it also provides a platform for the admin to view the reserved tickets, edit flight details, and take care of the backend work. With the help of this system, the passengers can reserve their flights easily and faster wherever they are. This will also help the Airlines Company to ease the manual system flow and make their work/process more effective and efficient. The system has 2 types of users which are the Admin (Airlines) and the Customer. The Admin user is in charge of managing the data of the system such as the list of jets, prices, and flight schedules. For the passenger, they can simply register to create an account to the system and search if there's an available/scheduled flight for their desired destination and date. After they select their desired flight the system will be provided a form to register the details of the passengers and proceed to payment afterward. The customer can also print their tickets in the system.

Report:

This project is aimed to reduce the manual work involved in data maintenance in the Flight Booking and automates the Airline Reservation System. This project is developed mainly to simplify the manual work and allows smooth administration of the operations of airlines. The purpose of the project is to computerize the administrative operations of Flight Booking and to develop software which is user friendly, simple, fast, and cost – effective. It deals with the collection of Users, Employees, Flights and Booking information, Fare details, etc. Traditionally, it was done manually. The main function of the system is to enter and book Flights and retrieve these details as and when required, and also to manipulate these details meaningfully.

The functional requirements of this project are:

- The project allows login of two entities, Admin and Customer:
- The Admin has a set of functionalities described as:
 - He can login into the system.
 - He can add/delete aircrafts in the database.
 - He can view all the records of all the bookings that have been made.
 - He can add/delete flights from the menu.
 - He can add/delete airlines from the menu.
- The Customer has a set of functionalities described as:
 - He can check the flights based on the source and destination.
 - He can book a flight.
 - He can view all his bookings.

The non-functional requirements of this projects are:

- Security :

The website does not allow access to any functionality by directly jumping to any particular link to that function's page. Additionally, anything that is needed to be done can only be done by first logging in. There are multiple accounts, with login by Admin only allowing Admin functionalities and Customer allowing only Customer functionalities.

- Data Integrity :

The project does not allow entry of data in case data is invalid. This is very important as if invalid data is added, then it can cause large problems, such as getting tickets for flights which are invalid, creating aircrafts for invalid or incorrect destinations, or inserting invalid source/destination, each of which can have cascading effects.

- Automatic data processing :

a lot of information is processed by the project instead of relying on the user to add perfect information and perform numerous functions each time. Examples include deleting old dates and flights, retrieving prices, validating inserted information in aircrafts etc. This is an important task as it can be performed much more efficiently and quickly by the system than by a human.

The user characteristics are:

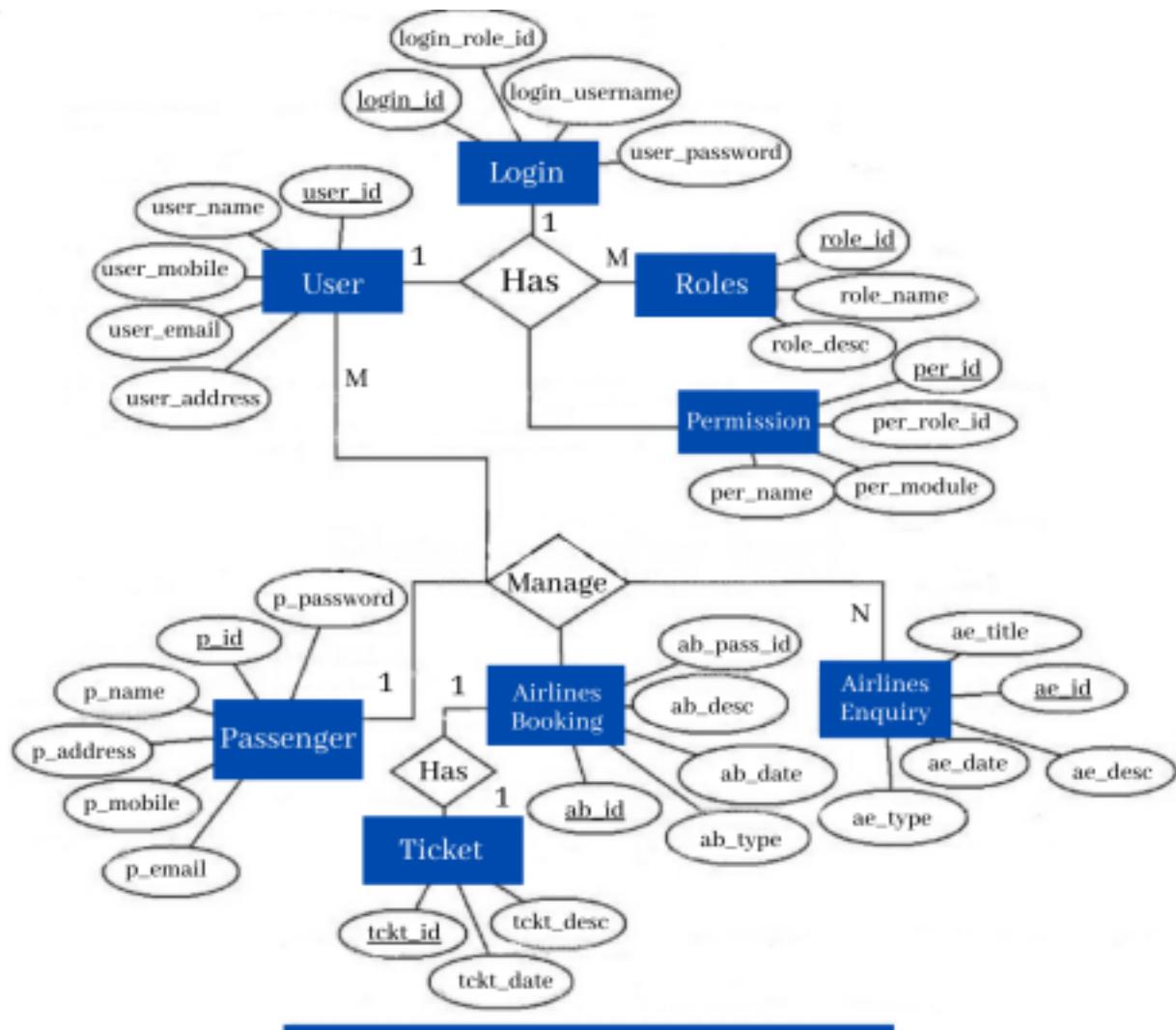
- The first user is the admin, who holds administrative powers in the context of the Project, which include:

- adding/deleting aircrafts in the database.
- He can sign up in the system using his credentials.
- He can login in to the system using his username and password
- viewing all the records of all the bookings that have been made.

- The second user is the customer, who can book tickets to a flight sitting at home or from any place, his functions include:

- checking the flights based on the source and destination.
- booking a flight.
- viewing all his bookings

ER Diagram:



Mapping:

1. Login (Login_id, Login_role_id, Login_username, user_password)
2. Roles(role_id, role_name, role_desc, user_id)
3. Permission(per_id, per_role_id, per_module, per_name)
4. Airlines Booking(ab_id, ab_type, ab_date, ab_desc, ab_pass_id)
5. Ticket(tckt_id, tckt_date, tckt_desc)
6. Passenger(p_id, p_name, p_password, p_address, p_mobile, p_email)
7. Airlines enquiry(ae_id, ae_title, ae_date, ae_desc, ae_type, p_id)
8. Manage(ae_id, p_id)

Normalisation of Database:

Admin : which stores information about the Airline Administrators who can make changes to the schedule and so on.

Field	Type	Null	Key	Default	Extra
Admin_ID	varchar(20)	NO	PRI	NULL	
Name	varchar(20)	YES		NULL	
Pswd	varchar(20)	YES		NULL	

Planes : which stores information about all the planes that the airline owns which fly between different cities under different aircraft_id.

Field	Type	Null	Key	Default	Extra
Plane_Name	varchar(20)	NO	PRI	NULL	
Class	varchar(10)	YES		NULL	
Seats	int(11)	YES		NULL	

Aircrafts : The planes when fly between one set of cities it's, aircraft_id varies on it's to and fro journey.

Field	Type	Null	Key	Default	Extra
Flight_ID	varchar(20)	NO	PRI	NULL	
Dep_Time	datetime	NO	PRI	NULL	
Arr_Time	datetime	YES		NULL	
Plane_Name	varchar(20)	YES	MUL	NULL	
Src	varchar(20)	YES		NULL	
Dstn	varchar(20)	YES		NULL	
Fare	int(11)	YES		NULL	
Dep_Date	date	YES		NULL	

Records : this table contains all the information about all the bookings made by the customers for individual aircrafts.

Field	Type	Null	Key	Default	Extra
Book_ID	int(11)	NO	PRI	NULL	auto_increment
Flight_ID	varchar(20)	YES	MUL	NULL	
Dep_Time	datetime	YES		NULL	
Book_Time	datetime	YES		NULL	
User_Name	varchar(20)	YES	MUL	NULL	
Payment_Type	varchar(20)	YES	MUL	NULL	
Fare	int(11)	YES		NULL	

Presentation:

Admin Page:

The screenshot shows the 'Airlines Form' section of the Admin Page. On the left, a sidebar menu includes Home, Booked, Flights, Airport, Airlines, and Site Settings. The main area has two tabs: 'Airlines' and 'Logo'. Under 'Airlines', there is a file input field labeled 'Choose File' with the placeholder 'No file chosen'. Below it are three rows of airline data:

#	Image	Name	Action
1		AirIndia	Edit Delete
2		IndiGo	Edit Delete
3		Vistara	Edit Delete

At the bottom are 'Save' and 'Cancel' buttons.

The screenshot shows the 'Site Settings' form. The sidebar menu is identical to the previous page. The main area contains fields for 'System Name' (Airline reservation system), 'Email' (info@sample.com), and 'Contact' (+91 123456789). Below these is a rich text editor with a toolbar. The content area contains the following text:

This is our Airline reservation system project. We wanted to show all flight options in one place, creating a simple alternative to the confusing sites that make travel feel like hard work.

Dedicated to making travel as simple as possible, we help to find the best options across flights to book the perfect trip.

But we're not stopping there.

At the bottom is an 'Image' section with a 'Choose File' button and a placeholder 'No file chosen'.

Online Flight Booking System

Administrator

Email: info@sample.com

Contact: +91 123456789

About Content:

This is our Airline reservation system project. We wanted to show all flight options in one place, creating a simple alternative to the confusing sites that make travel feel like hard work.

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Image:

Choose File No file chosen

Save

Windows Taskbar: Type here to search, 02:12, 12-12-2021

Admin | Online Flight Booking System

Administrator

Airport's Form:

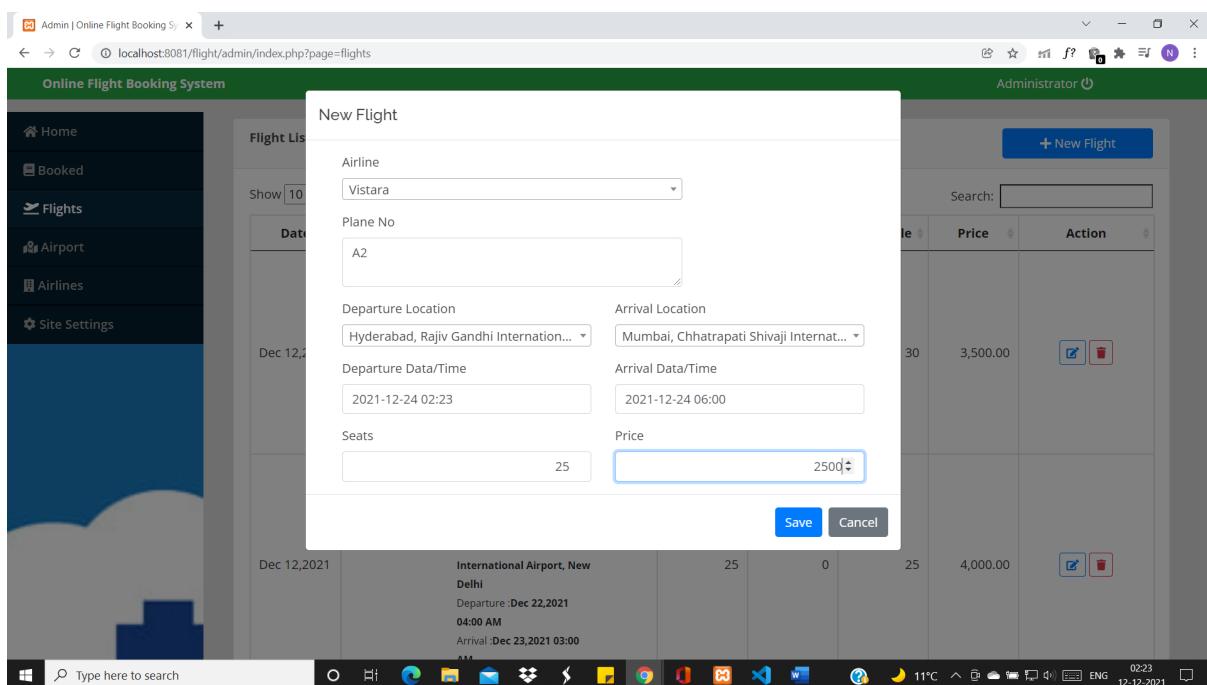
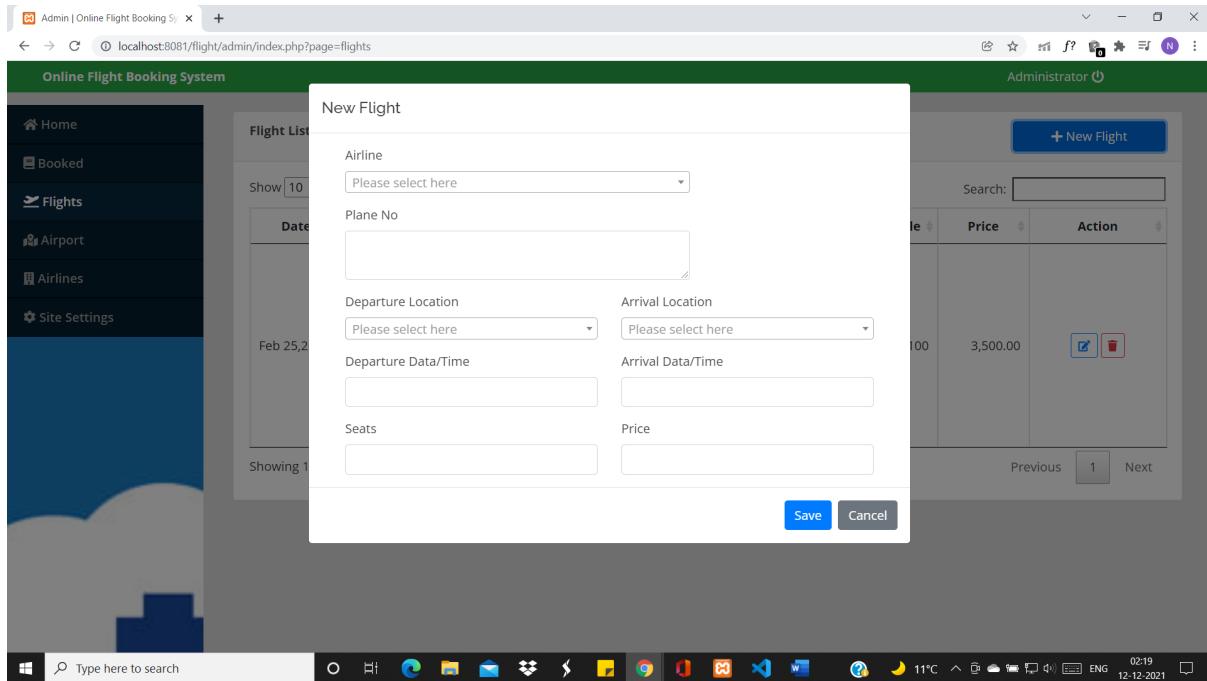
Airport:

Location:

Save Cancel

#	Airport	Locoation	Action
1	Indhira Gandhi International Airport	New Delhi	Edit Delete
2	Chhatrapati Shivaji International Airport	Mumbai	Edit Delete
3	Chennai International Airport	Chennai	Edit Delete
4	Rajiv Gandhi International Airport	Hyderabad	Edit Delete
5	Goa International Airport	Goa	Edit Delete

Windows Taskbar: Type here to search, 02:18, 12-12-2021



Admin | Online Flight Booking System

localhost:8081/flight/admin/index.php?page=flights

Administrator

Online Flight Booking System

Show 10 entries

Search:

Date	Information	Seats	Booked	Available	Price	Action
Dec 12,2021	Airline :Vistara Airline Vistara Location:Rajiv Gandhi International Airport, Hyderabad - Chhatrapati Shivaji International Airport, Mumbai Departure :Dec 24,2021 02:23 AM Arrival :Dec 24,2021 06:00 AM	25	0	25	2,500.00	
Dec 12,2021	Airline :IndiGo Airline IndiGo Location:Goa International Airport, Goa - Indira Gandhi International Airport, New Delhi Departure :Dec 23,2021 02:20 AM Arrival :Dec 24,2021 02:20 AM	30	0	30	3,500.00	
	Airline :AirIndia Airline AirIndia					

Type here to search

02:24 12-12-2021

YouTube 2021 New Songs | localhost:8081/flight/ | localhost:8081/127.0.0.1:8081 | localhost:8081/flight/admin/index.php?page=flights | 7 Top Airports in India | New Tab

localhost:8081/flight/

Home Flight List About

Welcome to Airline reservation system

From To Departure Date

Select Departure Select Departure dd-mm-yyyy

One-way Round Trip

Find Flights

Type here to search

02:24 12-12-2021

Partner Airlines

Windows Taskbar

Type here to search

02:24 12-12-2021

2021 New Songs | Airline Reservation System | Airline Reservation System | localhost:8081 / 127.0.0.1 | Airline reservation system | 7 Top Airports in India | New Tab

localhost:8081/flight/

Airline reservation system

Home Flight List About

Partner Airlines



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Type here to search

2021 New Songs | Airline Reservation System | Airline Reservation System | localhost:8081 / 127.0.0.1 | Airline reservation system | 7 Top Airports in India | New Tab

localhost:8081/flight/index.php?page=flights

Airline reservation system

Home Flight List About

Available Seats : 100

Rajiv Gandhi International Airport, Hyderabad - Chhatrapati Shivaji International Airport, Mumbai

Airline: Vistara
Departure: 02:23 AM
Arrival: 06:00 AM
Available Seats : 25

2,500.00

Book Now

Chennai International Airport, Chennai - Indira Gandhi International Airport, New Delhi

Airline: AirIndia
Departure: 04:00 AM
Arrival: Dec 23, 2021 03:00 AM
Available Seats : 25

4,000.00

Book Now

Type here to search

User Page:

The screenshot shows the homepage of the "Airline reservation system". At the top, there is a navigation bar with links for "Home", "Flight List", and "About". Below the navigation bar, a large banner features a red airplane in flight against a blue sky. Overlaid on the banner is a search form titled "Flights". The search form includes fields for "From" (New Delhi, Indhira), "To" (Goa, Goa International), "Departure Date" (22-12-2021), "Return Date" (23-12-2021), and radio buttons for "One-way" and "Round Trip". A blue "Find Flights" button is located at the bottom right of the search form.

This screenshot shows the search results for a departure flight. The title "Departure Searched Flight results..." is displayed. It lists a flight from "Indhira Gandhi International Airport, New Delhi" to "Goa International Airport, Goa" operated by "Vistara" for 3,500.00. The Windows taskbar at the bottom shows various open applications and the date/time as 12-12-2021.

This screenshot shows the search results for an arrival flight. The title "Arrival Searched Flight results..." is displayed. It lists a flight from "Goa International Airport, Goa" to "Indhira Gandhi International Airport, New Delhi" operated by "IndiGo" for 3,500.00. The Windows taskbar at the bottom shows various open applications and the date/time as 12-12-2021.

Admin | Online Flight Booking System

localhost:8081/flight/admin/index.php?page=booked

Administrator

Online Flight Booking System

Booked Flights List

Show 10 entries Search:

#	Information	Flight Info	Action
1	Name :mrinal Contact #:123455432 Address :qwerty	 Airline :IndiGo Plane :C1 Airline :IndiGo Location :Goa International Airport, Goa - Indira Gandhi International Airport, New Delhi Departure :Dec 23,2021 02:20 AM Arrival :Dec 24,2021 02:20 AM	 
2	Name :Nehal Contact #:123456789 Address :asdf	 Airline :Vistara Plane :A1 Airline :Vistara Location :Indira Gandhi International Airport, New Delhi - Goa International Airport, Goa Departure :Dec 22,2021 01:00 AM Arrival :Dec 23,2021 02:00 AM	 

Showing 1 to 2 of 2 entries Previous 1 Next

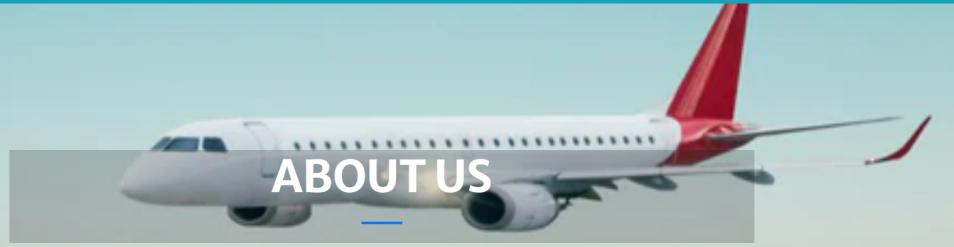
Type here to search

localhost:8081/flight/index.php?page=about

Airline reservation system

Home Flight List About

ABOUT US



This is our Airline reservation system project. We wanted to show all flight options in one place, creating a simple alternative to the confusing sites that make travel feel like hard work.

Dedicated to making travel as simple as possible, we help to find the best options across flights to book the perfect trip.

But we're not stopping there.

Type here to search

localhost:8081/phpmyadmin/index.php?route=/database/structure&server=1&db=flight_booking_db

phpMyAdmin

Structure SQL Search Export Import Operations Privileges Routines Events Triggers Tracking Designer More

Containing the word:

Table	Action	Rows	Type	Collation	Size	Overhead
airlines_list	Browse Structure Search Insert Empty Drop	3	InnoDB	utf8mb4_general_ci	16.0 Kib	-
airport_list	Browse Structure Search Insert Empty Drop	5	InnoDB	utf8mb4_general_ci	16.0 Kib	-
booked_flight	Browse Structure Search Insert Empty Drop	2	InnoDB	utf8mb4_general_ci	16.0 Kib	-
flight_list	Browse Structure Search Insert Empty Drop	5	InnoDB	utf8mb4_general_ci	16.0 Kib	-
system_settings	Browse Structure Search Insert Empty Drop	1	InnoDB	utf8mb4_general_ci	16.0 Kib	-
users	Browse Structure Search Insert Empty Drop	6	InnoDB	utf8mb4_general_ci	16.0 Kib	-

6 tables Sum 22 InnoDB utf8mb4_general_ci 96.0 Kib 0 B

Create table

Name: Number of columns: 4

Go

Print Data dictionary

Console

Showing rows 0 - 2 (3 total). Query took 0 0010 seconds.

```
SELECT * FROM `airlines_list`
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all Number of rows: 25 Filter rows Search this table Sort by key None

+ Options T-+ id airlines logo_path

<input type="checkbox"/>	<input type="checkbox"/> Edit	<input type="checkbox"/> Copy	<input type="checkbox"/> Delete	1	AirIndia	1639255200_Air-India-logo.png
				2	IndiGo	1639255200_indigo.jpg
				3	Vistara	1639255320_vistara

Check all With selected: Edit Copy Delete Export

Show all Number of rows: 25 Filter rows Search this table Sort by key None

Query results operations

Print Copy to clipboard Export Display chart Create view

Bookmark this SQL query

Label: Let every user access this bookmark

Bookmark this SQL query

Console

Type here to search

Showing rows 0 - 1 (2 total). Query took 0 0012 seconds.

```
SELECT * FROM `booked_flight`
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all Number of rows: 25 Filter rows Search this table Sort by key None

+ Options T-+ id flight_id name address contact

<input type="checkbox"/>	<input type="checkbox"/> Edit	<input type="checkbox"/> Copy	<input type="checkbox"/> Delete	4	4	Nehal	asdf	123456789
				5	6	minal	qwerty	123455432

Check all With selected: Edit Copy Delete Export

Show all Number of rows: 25 Filter rows Search this table Sort by key None

Query results operations

Print Copy to clipboard Export Display chart Create view

Bookmark this SQL query

Label: Let every user access this bookmark

Bookmark this SQL query

Console

Type here to search

Showing rows 0 - 4 (5 total). Query took 0 0008 seconds.

```
SELECT * FROM `flight_list`
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all Number of rows: 25 Filter rows Search this table Sort by key None

+ Options T-+ id airline_id plane_no departure_airport_id arrival_airport_id departure_datetime arrival_datetime seats price date_created

<input type="checkbox"/>	<input type="checkbox"/> Edit	<input type="checkbox"/> Copy	<input type="checkbox"/> Delete	4	3	A1	1	5	2021-12-22 01:00:00	2021-12-23 02:00:00	100	3500	2021-02-25 14:50:47
				5	1	B1	3	1	2021-12-22 04:00:00	2021-12-23 03:00:00	25	4000	2021-12-12 02:20:16
				6	2	C1	5	1	2021-12-23 02:20:00	2021-12-24 02:20:00	30	3500	2021-12-12 02:21:14
				7	0	A2	4	5	2021-12-23 02:22:00	2021-12-23 06:00:00	21	2000	2021-12-12 02:22:54
				8	3	A2	4	2	2021-12-24 02:23:00	2021-12-24 06:00:00	25	2500	2021-12-12 02:24:08

Check all With selected: Edit Copy Delete Export

Show all Number of rows: 25 Filter rows Search this table Sort by key None

Query results operations

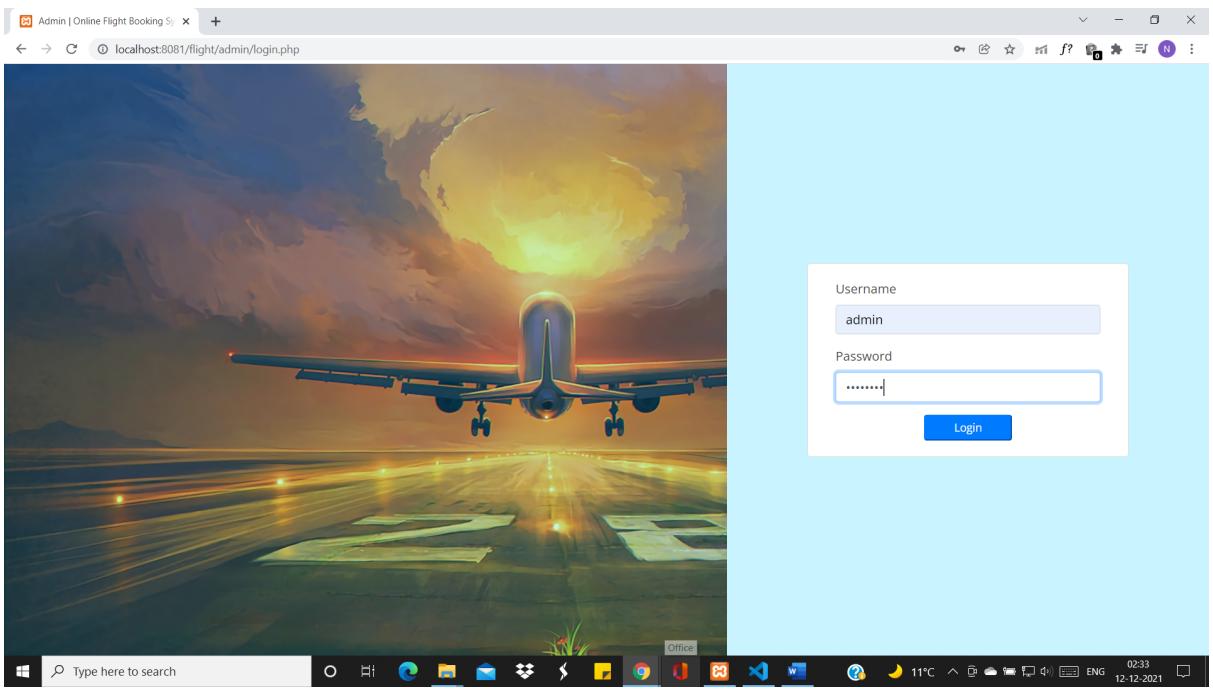
Print Copy to clipboard Export Display chart Create view

Bookmark this SQL query

Label: Let every user access this bookmark

Bookmark this SQL query

Console



A screenshot of the "Online Flight Booking System" dashboard. The title bar says "Admin | Online Flight Booking System" and the URL is "localhost:8081/flight/admin/index.php?page=home". The dashboard has a green header bar with the title "Online Flight Booking System" and an "Administrator" status indicator. On the left, a dark sidebar menu lists "Home", "Booked", "Flights", "Airport", "Airlines", and "Site Settings", with "Site Settings" currently selected. The main content area displays a message: "Welcome back Administrator!". The Windows taskbar at the bottom shows various pinned icons and the date/time as 12-12-2021 02:33.