



North South University

Course Code: CSE-311

Course Name: Database Management System

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Project

“Airline Travel Service”

Submitted By:	
Rafiul Ferdoush	ID: 1612771042
Farzana Hossain Ekra	ID: 1611029042

Submitted To:	
Intisar Tahmid Naheen (ITN)	

Lab Instructor:	
Fahimul Hoque Shubho	

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Project Description:

In this project, we implement an airline reservation website which is similar to Priceline.com. We assume that all of the flights are daily flights. A new user can create an account first, then search and add flights to his/her cart. There are two flight options provided for searching: one-way and round-trip, users can also filter the results according to whether or not there is an intermediate stop. An admin user can add, delete and update any flights. We make an assumption that all of the operations are cascading.

Database Design:

```
CREATE TABLE `airplane` (  
  `ID` varchar(10) NOT NULL,  
  `type` varchar(10) NOT NULL,  
  `company` varchar(20) NOT NULL,  
  PRIMARY KEY (`ID`)  
)  
  
CREATE TABLE `airport` (  
  `code` varchar(10) NOT NULL,  
  `name` varchar(50) NOT NULL,  
  `city` varchar(20) NOT NULL,  
  `state` varchar(20) NOT NULL,  
  `country` varchar(20) NOT NULL,  
  PRIMARY KEY (`code`)  
)  
  
CREATE TABLE `book` (  
  `ID` int(11) NOT NULL AUTO_INCREMENT,  
  `time` datetime NOT NULL,  
  `date` date NOT NULL,  
  `flightno` varchar(10) NOT NULL,  
  `username` varchar(45) NOT NULL,  
  `classtype` varchar(20) NOT NULL,  
  `paid` int(1) DEFAULT '0',  
  PRIMARY KEY (`ID`,`flightno`),  
  KEY `username_idx` (`username`),  
  KEY `classname_idx` (`classtype`),
```

```

    KEY `flightno_idx` (`flightno`,`classtype`),
    CONSTRAINT `flightno` FOREIGN KEY (`flightno`,`classtype`)
REFERENCES `class` (`number`,`name`) ON DELETE CASCADE ON
UPDATE CASCADE,
    CONSTRAINT `username` FOREIGN KEY (`username`) REFERENCES
`passanger` (`username`) ON DELETE NO ACTION ON UPDATE NO ACTION
)
CREATE TABLE `class` (
    `number` varchar(10) NOT NULL,
    `name` varchar(20) NOT NULL,
    `capacity` int(11) NOT NULL,
    `price` float NOT NULL,
    PRIMARY KEY (`number`,`name`),
    KEY `number_idx` (`number`),
    CONSTRAINT `number` FOREIGN KEY (`number`) REFERENCES `flight`
(`number`) ON DELETE CASCADE ON UPDATE CASCADE
)
CREATE TABLE `flight` (
    `number` varchar(20) NOT NULL,
    `airplane_id` varchar(10) NOT NULL,
    `departure` varchar(10) NOT NULL,
    `d_time` time NOT NULL,
    `arrival` varchar(10) NOT NULL,
    `a_time` time NOT NULL,
    PRIMARY KEY (`number`),
    KEY `code_idx` (`departure`,`arrival`),
    KEY `airplaneid_idx` (`airplane_id`),
    KEY `arrival_idx` (`arrival`),
    CONSTRAINT `airplaneid` FOREIGN KEY (`airplane_id`) REFERENCES
`airplane` (`ID`) ON DELETE CASCADE ON UPDATE CASCADE,
    CONSTRAINT `arrival` FOREIGN KEY (`arrival`) REFERENCES `airport`
(`code`) ON DELETE CASCADE ON UPDATE CASCADE,
    CONSTRAINT `departure` FOREIGN KEY (`departure`) REFERENCES
`airport` (`code`) ON DELETE CASCADE ON UPDATE CASCADE
)

```

```
CREATE TABLE `passanger` (
  `username` varchar(30) NOT NULL,
  `firstname` varchar(45) DEFAULT NULL,
  `middlename` varchar(45) DEFAULT NULL,
  `lastname` varchar(45) DEFAULT NULL,
  `email` varchar(45) DEFAULT NULL,
  `cellphone` varchar(15) DEFAULT NULL,
  `gender` varchar(10) DEFAULT NULL,
  `birthday` date DEFAULT NULL,
  `password` varchar(45) NOT NULL,
  PRIMARY KEY (`username`)
)
```

Languages Used for Implementation:

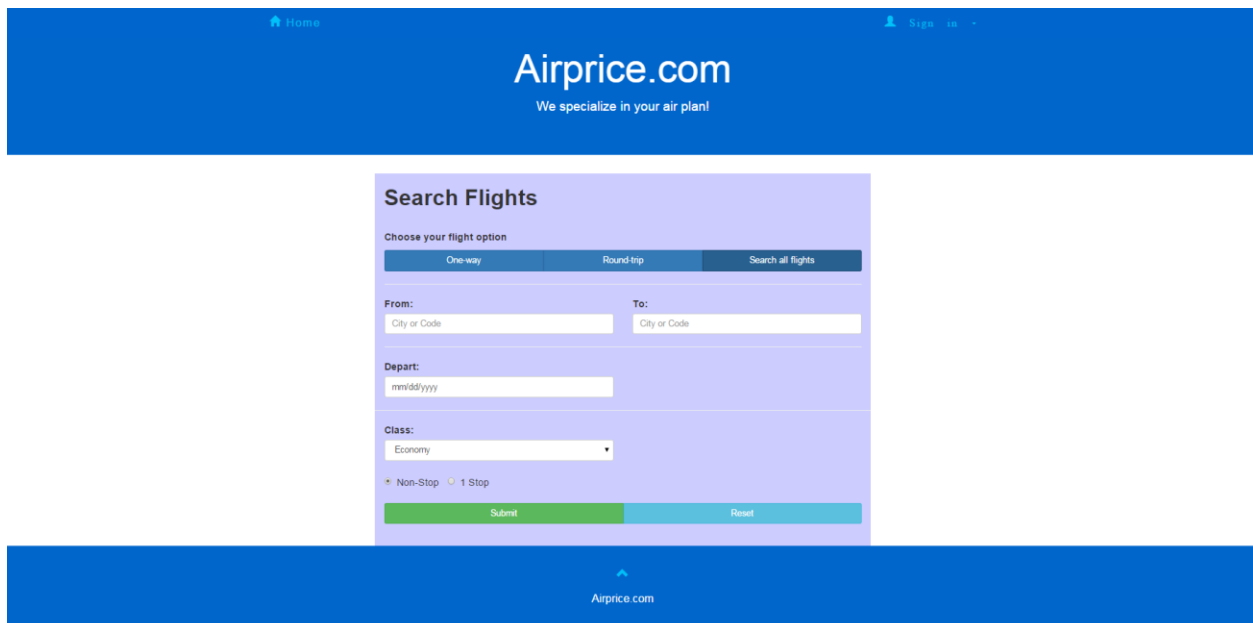
PHP 5 for server side scripting.

Javascript/JQuery/Ajax for client side scripting.

Bootstrap/CSS for design the web pages.

Screenshots:

1. Homepage



The screenshot displays the homepage of Airprice.com. The header is a solid blue bar with a 'Home' link and a 'Sign in' link. The main content area has a light purple background. At the top, the 'Airprice.com' logo is centered, with the tagline 'We specialize in your air plan!'. Below the logo is a 'Search Flights' section. This section includes a 'Choose your flight option' header with three buttons: 'One-way', 'Round-trip', and 'Search all flights'. The 'From:' field is labeled 'City or Code' and is empty. The 'To:' field is also labeled 'City or Code' and is empty. The 'Depart:' field is labeled 'mm/dd/yyyy' and is empty. The 'Class:' field is a dropdown menu with 'Economy' selected. Below the dropdown are two radio buttons: 'Non-Stop' (selected) and '1 Stop'. At the bottom of the search form are two buttons: 'Submit' and 'Reset'. The footer is a solid blue bar with an 'Airprice.com' logo.

2. Sign up

Home

Sign in

Airprice.com

We specialize in your air plan!

Sign Up

* Username:

only alphabetical or numeric characters

* Password:

No special characters, at least one letter, one capital letter, one number

* First Name:

Enter Your First Name

Middle Name:

Enter Your Middle Name

* Last Name:

Enter Your Last Name

* Email:

Enter Your Email

Gender:

☐ Female

☐ Male

Birthday:

mm/dd/yyyy

* Phone:

Enter Your Phone Number

Check Availability

Sign Up

Home

Airprice.com

3. Sign in

Home

Sign in

Airprice.com

We specialize in your air plan!

Welcome , please sign-in.

We want your visit to be fast and easy. Please enter your username and password to get started. If you need to set up your profile, please [register now](#).

Your username:

Enter Your Username

Your password:

Enter Your Password

☐ Remember my username when I return

Sign In

Up

Airprice.com

4. Shopping cart

[Home](#)

[Shopping Cart](#)

[Welcom](#) [song!](#)

Airprice.com

We specialize in your air plan!

Shopping cart

In the shopping cart:

Time	Flight	Aircraft	Date	Departure	Departure Time	Arrival	Arrival Time	Class	Price	Pay
2015-12-01 17:22:00	AA986	Boeing B738	2015-12-01	DFW	10:00:00	SEA	14:00:00	Economy	120	Delete
2015-12-02 02:34:02	AA986	Boeing B738	2015-12-02	DFW	10:00:00	SEA	14:00:00	Economy	120	Delete
2015-12-02 02:34:02	AA6927	Airbus A320	2015-12-02	SEA	17:00:00	SFO	19:00:00	Economy	40	Delete
2015-12-02 04:22:32	AA986	Boeing B738	2015-12-02	DFW	10:00:00	SEA	14:00:00	Economy	120	Delete
2015-12-02 04:26:29	AA100	Airbus A320	2015-12-02	LAX	18:35:00	SEA	21:00:00	Economy	180	Delete
2015-12-02 04:26:29	AA120	Airbus A320	2015-12-02	DFW	14:35:00	LAX	17:30:00	Economy	1000	Delete
2015-12-02 06:05:52	AA6961	Airbus A320	2015-12-02	SFO	11:00:00	SEA	13:00:00	Economy	40	Delete
2015-12-02 11:46:57	AA100	Airbus A320	2015-12-02	LAX	18:35:00	SEA	21:00:00	Business	500	Delete
2015-12-02 11:56:31	AA986	Boeing B738	2015-12-02	DFW	10:00:00	SEA	14:00:00	Economy	120	Delete

Total: \$2240

[Pay](#)

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5. History

[Home](#)

[Shopping Cart](#)

[Welcom](#) [song!](#)

Airprice.com

We specialize in your air plan!

Show History

History:

Time	Flight	Aircraft	Date	Departure	Departure Time	Arrival	Arrival Time	Class	Price	Pay
2015-12-01 17:23:00	AA986	Boeing B738	2015-12-01	DFW	10:00:00	SEA	14:00:00	Economy	120	YES
2015-12-01 17:25:00	AA986	Boeing B738	2015-12-01	DFW	10:00:00	SEA	14:00:00	Business	400	YES
2015-12-01 17:27:00	AA1512	Boeing B738	2015-12-01	SEA	13:40:00	DFW	19:30:00	Economy	100	YES

^

Airprice.com

6. Search result

[Home](#)[Shopping Cart](#)[Welcom song!](#)

Airprice.com

We specialize in your air plan!

Search Result

Flight	Aircraft	Date	Departure	Departure Time	Arrival	Arrival Time	Class	Capacity	Price	Remain Seats	Reserve
AA120	Airbus A320	2015-12-07	DFW	14:35:00	LAX	17:30:00	Economy	100	1000	100	
AA100	Airbus A320	2015-12-07	LAX	18:35:00	SEA	21:00:00	Economy	200	180	199	Add to Chart

Flight	Aircraft	Date	Departure	Departure Time	Arrival	Arrival Time	Class	Capacity	Price	Remain Seats	Reserve
AA180	Airbus A320	2015-12-07	DFW	07:35:00	SFO	10:30:00	Economy	100	240	100	
AA8861	Airbus A320	2015-12-07	SFO	11:00:00	SEA	13:00:00	Economy	100	40	100	Add to Chart

[Airprice.com](#)

7. Admin page

[Home](#)[Sign out](#)

Airprice.com

We specialize in your air plan!

Add

Update

Delete

Flight No.

Airplane ID

Departure Airport

Departure Time

Arrival Airport

Arrival Time

Economy Capacity

Economy Price

Business Capacity

Business Price

details

details

details

submit

[Airprice.com](#)