

NITTE MEENAKSHI INSTITUTE OF TECHNOLOGY

(AN AUTONOMOUS INSTITUTION, AFFILIATED TO VISVESVARAYA TECHNOLOGICAL UNIVERSITY,

BELGAUM, APPROVED BY AICTE & GOVT.OF KARNATAKA



Application Development using JAVA (18CS45)

on

AIRLINE MANAGEMENT SYSTEM

Submitted in partial fulfilment of the requirement for the award of Degree of

Bachelor of Engineering

in

Computer Science and Engineering

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Department of Computer Science and Engineering
(Accredited by NBA Tier-1)

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CERTIFICATE

This is to certify that the Phase II Report on “**Airline Management System**” is an authentic work carried out by **Jayanth.C(1NT18CS063)**, **Tarun Kumar Arcot(1NT18CS174)**, **Utsav Das (1NT18CS178)** ,**Jyoti Kumari Sah (1NT18CS196)** bonafide students of **Nitte Meenakshi Institute of Technology**, Bangalore in partial fulfilment for the award of the degree of ***Bachelor of Engineering*** in COMPUTER SCIENCE AND ENGINEERING of Visvesvaraya Technological University, Belagavi during the academic year **2019-2020**. It is certified that all corrections and suggestions indicated during the internal assessment has been incorporated in the report.

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DECLARATION

We hereby declare that

- (i) The project work is our original work
- (ii) This Project work has not been submitted for the award of any degree or examination at any other university/College/Institute.
- (iii) This Project Work does not contain other persons' data, pictures, graphs or other information, unless specifically acknowledged as being sourced from other persons.
- (iv) This Project Work does not contain other persons' writing, unless specifically acknowledged as being sourced from other researchers. Where other written sources have been quoted, then:
 - a) their words have been re-written but the general information attributed to them has been referenced;
 - b) where their exact words have been used, their writing has been placed inside quotation marks, and referenced.
- (v) This Project Work does not contain text, graphics or tables copied and pasted from the Internet, unless specifically acknowledged, and the source being detailed in the thesis and in the References sections.

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ABSTRACT

The airline reservation system is a computerized system used to store, retrieve information. The project is aimed at exposing the importance of Airline Reservation Systems. It's aim is to enhance and improve the relationship between customers and airline agencies through the use of the Airline reservation System, and hence making it suitable for the customers to book flights as when they require. They can also utilize this software to make reservations and cancel reservations.

This software has two section. First is the customer's section and second is the administrator section. Administrator is used by airline authority. The customer's part is used as a front end and the administrator is the back end. It will allow the customers to access database and allow new customers to signup for online access. The system allows the airline passenger to search for flights that are available between the two "Source" and "Destination" travel cities at the particular departure date, namely the "Departure Date". The system displays all the flight's details such as flight no, name, price arrival time, departure time, capacity etc. After search the system display list of available flights and allows customer to see a particular flight.

To book a flight the system asks the customer to enter his details such as passport no., first name, last name, flight number, source, destination, and phone number. It also checks the validity of the debit/credit card and book the flight. It updates the airline database and user database. It also has the facility to send attached E-ticket as an E-Mail to the customer. The airline management system also allows the customer to cancel his/her reservation, if any problem occurs.

The main purpose of this software is to decrease the manual mistakes involved in the airline reservation process and to make it suitable for the customers to book the flights as when they require. The Customers can utilize this software to make reservations, modify reservations or cancel a particular reservation.

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CHAPTER 1

INTRODUCTION

1.1 PROJECT OVERVIEW

Airline Management System contains the details about flight schedules and fare tariffs, passenger reservations and ticket records. Air Alliance operates flights to 30 destinations in India namely Bangalore, Allahabad, Bhopal, Delhi, Hyderabad, Jaipur, Gujrat, Kolkata, Pune, Raipur, Mumbai etc.

1.2 PROJECT DESCRIPTION

Airline Management System will store the flight schedules, passenger reservations ,ticket records. It saves time as it allows online procedure as users no longer wait in a queue to book the flights.Admin is the main charge who can do addition, deletion and modification of flights if required.

The project has been planned to having the view of distributed architecture and centralized storage of the database. Using the constructs of the database MySQL and all the user interfaces have been designed using the Scene Builder.

The database connection is planned using JDBC connection methodology. The application maintains related data and different modules, which were produced as per applicable plans and standards, which are created by the administrative staff.

1.3 OBJECTIVE

The development of a reservation system focuses on certain goals. These said purposes are classified and expound as follows: General Objective To make use of the technology through an improved automated transaction of airline reservation and cancellation system. Thus, minimizing the errors that resulted from the prior systems. It is projected towards the improvement of relationship between the customers and the airline . The project specifically aims:

1. To develop an upgraded airline reservation system for the company.
2. To store and collect accurate information from the customers.

3. To provide convenience to the users through an online reservation system and a good customer service.
4. To design an airline reservation system that is simple, user-friendly and easy to understand.
5. To execute a design that will lessen the omission of errors. Importance of the Study the proponents aim to create a reservation system that benefits different sectors of the community.

Those said sectors are specifically enumerated as follows:

Passengers -This system will provide convenience to the passengers when it comes to booking process. Since it is accessible through internet, the passengers will have more time to schedule their respective flights, early check-ins and updates, and cancellations.

Airlines -This system is important because it helps to manage the process and their passenger's flights in a more organize and convenient way. Online reservation system can open its door to more passengers since it is reachable to more people.

1.4 LIMITATIONS

The study aims to create a system which is designed to arrange flights to be made through internet. This said to be developed system accommodates only specific areas and persons, as well as limited to certain situations. The following further explains scope and limitations of the reservation system.

The reservation system is intended to serve only:

1. The customer that has a registered account in the airline's system.
2. The reservation of flights as well as cancellation of the already scheduled flights.

The reservation system has certain boundaries. These include:

1. Reservation or cancellation of flights should be done virtually.
2. It does not include the process of paying for the flight scheduled.

CHAPTER 2

LITERATURE SURVEY

American Airlines began experimenting with the first automated booking system in 1946, known as the Electromechanical Reservisor. During 1952, the airline introduced a newer system to gain access to inventory in real-time from across their network. The Magnetronic Reservisor system, was able to store up to 1,223 flights, a major achievement at the time. It did have some obvious disadvantages including that it required a team of agents, multiple phone calls and a lot of effort to book even a single seat.

The American and IBM released Sabre, which could update seat inventory in real-time. This system could also function with only one agent working to search for and update inventory. It creates a reservation for the customers and print the ticket.

2.1 SYSTEMS TODAY

Today most of the systems are a part of the airline industry's foundation. It has developed much more than back in the 1950s and 1960s. There are the customers who were facing aspects of the app, the website, the counter at the airport – on top of everything behind the scenes – crew scheduling, network planning, inventory, and even finance. Everything has to mesh perfectly for anything to run smoothly. The slightest issue can lead to cancellations and delays that cause problems for days.

Each part is small and has delicate parts that build up this machine. Sometimes, if a machine loses one small piece it continues to function well until it can be fixed. On the other hand, that delicate small parts get smashed with a baseball bat of sorts, possibly a large storm or a catastrophic system failure. It takes time to figure out what was the error and how to fix it, and the repairs can take a while.

Amadeus IT Group, S.A. is a major Spanish IT provider for the global travel and tourism industry, stresses all they bring to airline systems on their website, from inventory and ticketing to revenue management and operations. Each system eases the process of running an airline, but the customers may not understand just what that means for them.

2.2 TROUBLE IN RECENT YEARS

In the past few years, the technology has genuinely gotten better and better, glitches in airlines' internal systems appear to be causing more issues than ever.

In 2012, the carrier found four computer glitches, one of is involved one plane taking off 20,000 pounds heavier than expected by the pilots. Furthermore, in April 2013, more than 400 American Airlines flights were canceled due to a computer failure. In July, Southwest Airlines had a system error blamed on “multiple technology systems” and a malfunctioning router. Southwest had to forcefully cancel nearly 2,300 flights from the time of the outage until the following Sunday. Soon after the matter was resolved, the Southwest Airlines CEO Gary Kelly said the airline might have lost between \$5 million and \$10 million in ticket sales alone.

These two glitches in 2014 had caused thousands of cancellations this was due to one related to crew systems and the other to various passenger services. Finally, in Late July 2015, a “network connectivity issue” resulted in either the cancellation of 4,900 flights. The former CEO Jeff Smisek at one point acknowledged that some passengers were choosing not to fly United because of their technology problems.

Lastly, Delta had a system failure last Monday caused by a power outage at the company's Atlanta headquarters in the latest technology-related woe to hit the airline industry in recent years. Hundreds of flights were canceled and tens of thousands of passengers forced to find new flights as waves from the morning's issues dragged for the rest of the week. Delta's CEO Ed Bastian was forced to make the obligatory apology: “We are sorry that this happened. The technology outage was an incident; it's not who we are.”



Fig.2.1 First Airline Management System (1960s)

2.3 WHAT DOES ALL THIS MEAN FOR THE FUTURE

The Department of Transportation defines a major carrier as an airline that receives more than \$1 billion during a financial year. There are currently eleven passenger carriers and 3 regional carriers that meet those standards and requirements. Each of them transports thousands of people across many routes each year. Each of them also has the likely to have an internal system failure which leaves many of those passengers. There are numerous redundancies in place to protect against the problems that come up. With Delta's power failure, Bastian admitted those redundancies didn't hold up as expected. Any airline can add more support, but there's still no guarantee they'll work. As unfortunate as it may seem, problems will still arise, and flights will still get canceled and delayed. There's no stopping that. As our technology continues to enhance and overcome these errors, passengers can take comfort in seeing how far these massive systems have come, and where they may be headed in the future.



Fig.2.2 Old Airline Management System

CHAPTER 3

SYSTEM REQUIREMENTS AND SPECIFICATIONS

SYSTEM REQUIREMENTS

3.1 HARDWARE REQUIREMENTS

PROCESSOR: Intel Core 2 Duo 1.3GHz or Faster.

RAM:512MB or More.

VIDEO CARD: At least 128 MB of Video Memory.

SPACE REQUIRED: 400MB.

3.2 SOFTWARE REQUIREMENTS

OS:Windows XP,7,8,8.1,10, Linux,Ubuntu,Mac OS.

ADDITIONAL SOFTWARE REQUIRED:-

MYSQL-CONNECTOR-JAVA-8.0.19.JAR

SCENE BUILDER

JavaFX LIBRARIES.

CHAPTER 4

IMPLEMENTATION

4.1 CLASSES AND OBJECTS

A Class may be a user-defined data-type which has data members and member functions. Data members are the info variables and member functions are the functions wont to manipulate these variables and together these data members and member functions define the properties and behaviour of the objects in a Class.

An Object is an instance of a Class. When a category is defined, no memory is allocated but when it's instantiated (i.e. an object is created) memory is allocated.

4.2 JDBC

JDBC stands for Java Database Connectivity. JDBC is a Java API to connect and execute the query with the database. It is a part of JavaSE (Java Standard Edition). JDBC API uses JDBC drivers to connect with the database. There are four types of JDBC drivers:

- JDBC-ODBC Bridge Driver,
- Native Driver,
- Network Protocol Driver, and
- Thin Driver

4.3 JavaFX

JavaFX may be a Java library that's wont to develop Desktop applications also as Rich Internet Applications (RIA). The applications inbuilt JavaFX, can run on multiple platforms including Web, Mobile and Desktops. Our JavaFX tutorial includes all topics of JavaFX library like Fundamentals, 2D Shapes, 3D Shapes, Effects, Animation, Text, Layouts, UI Controls, Transformations, Charts, JavaFX with CSS, JavaFX with Media etc. [1]

4.4 Event Handling

Event Handling is that the mechanism that controls the event and decides what should happen if an occasion occurs. This mechanism have the code which is understood as event handler that's executed when an occasion occurs. Java Uses the Delegation Event Model to handle the events

4.5 JFoenix

JFoenix is an open source java library, that implements Google Material Design using java components.

4.6 Abstraction

The system allows the airline passenger to search for flights that are available between the two travel cities, namely the “Departure city” and “Arrival city” for a particular departure and arrival dates. The system displays all the flight’s details such as flight no, name, price and duration of journey etc.

4.7 Multithreading

The sequence of flow to different stages in JavaFX is handled by Threads .So each Stage the JavaFX stage is handled by individual Threads. Due the Process is Distributed to CPU.

4.8 Exceptional Handling

Exception handling has played a major role to handle the exception(errors) in our Project work. It's help has Application to tell the users or Admins present to right the errors they made, making the Application more Robust.

DIFFERENT MODULES

4.9 MYSQL-CONNECTOR-JAVA-8.0.19.JAR:-

MySQL Connector/ODBC (sometimes called just **Connector**/ODBC or MyODBC) is a driver for connecting to a **MySQL** database server through the Open Database Connectivity (ODBC) application program interface (API), which is the standard means of connecting to any database.

4.10 SCENE BUILDER:-

JavaFX Scene Builder may be a visual layout tool that lets users quickly design JavaFX application user interfaces, without coding. Users can drag and drop UI components to a piece area, modify their properties, apply style sheets, and therefore the FXML code for the layout that they're creating is automatically generated in the background. The result's an FXML file which will then be combined with a Java project by binding the UI to the application's logic.

4.11 JavaFX:-

JavaFX comes with an outsized set of built-in GUI components, like buttons, text fields, tables, trees, menus, charts and far more. That saves you tons of your time when building desktop applications.

JavaFX components are often styled using CSS, and you'll use FXML to compose a GUI rather than doing it in Java code. This makes it easier to quickly put a GUI together, or change the looks or composition without having to fiddle within the Java code.

JavaFX contains a group of ready-to-use chart components, so you do not need to code that from scratch whenever you would like a basic chart. JavaFX also comes with support for 2D and 3D graphics also as audio and video support. This is useful if you're developing a game, or similar media applications. JavaFX even contains a WebView supported the favored WebKit browser, so you'll embed sites or web applications inside JavaFX

CHAPTER 5

TEST CASES

Test Case ID	AU_001	Test Case Description	Test the Welcome Screen Functionality in Stark Airline		
Created By	Jayanth. C	Reviewed By	Shobha.P	Version	1.0

<u>QA Tester's Log</u>	Review comments from Test the Welcome Screen
-------------------------------	--

Tester's Name	Jayanth. C	Date Tested	03-04-2020	Test Case (Pass/Fail/Not Executed)	Pass
----------------------	------------	--------------------	------------	---	------

S #	Prerequisites:
1	JavaFX
2	Eclipse
3	JDBC

S #	Test Data
1	
2	
3	

<u>Test Scenario</u>	Verify on entering valid userid and password, the customer can login
-----------------------------	--

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	Navigate to Login Page	Login Page Should Open	As Expected,	Pass
2	Navigate to Sign Up Page	Sign Up Page Should Open	As Expected,	Pass
3	Navigate to Admin Page	Admin Page Should Open	As Expected	Pass

Test Case ID	AU_002	Test Case Description	Test the Login Functionality in Stark Airline		
Created By	Jayanth.C	Reviewed By	Shobha.P	Version	1.0

<u>QA Tester's Log</u>	Review comments Test the Login Functionality
-------------------------------	--

Tester's Name	Jayanth.C	Date Tested	03-04-2020	Test Case (Pass/Fail/Not Executed)	Pass
----------------------	-----------	--------------------	------------	---	------

S #	Prerequisites:
1	JavaFX
2	Eclipse
3	JDBC

S #	Test Data
1	User_id=admin@gmail.com
2	Pass = pass
3	

<u>Test Scenario</u>	Verify on entering valid userid and password, the customer can login
-----------------------------	--

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspende d
1	Navigate to Login Page	Site should open	As Expected,	Pass
2	Enter User_id & Password	Credential can be entered	As Expected,	Pass
3	Click Submit	Customer is logged in	As Expected	Pass

Test Case ID	AU_003	Test Case Description	Test the Admin Login Functionality in Stark Airline		
Created By	Jayanth.C	Reviewed By	Shobha.P	Version	1.0

QA Tester's Log Review Test the Admin Login Functionality

Tester's Name	Jayanth.C	Date Tested	03-04-2020	Test Case (Pass/Fail/Not Executed)	Pass
----------------------	-----------	--------------------	------------	---	------

S #	Prerequisites:
1	JavaFX
2	Eclipse
3	JDBC

S #	Test Data
1	User_id = d@gmail.com
2	Pass = pass
3	

Test Scenario Verify on entering valid userid and password, the Admin can login

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	Navigate to Login Page	Site should open	As Expected,	Pass
2	Enter User_id & Password	Credential can be entered	As Expected,	Pass
3	Click Submit	Customer is logged in	As Expected	Pass

Test Case ID	AU_004	Test Case Description	Test the Customer Flight Search Functionality in Stark Airline		
Created By	Jayanth.C	Reviewed By	Shobha.P	Version	1.0

QA Tester's Log Review Test the Customer Flight Search

Tester's Name	Jayanth.C	Date Tested	03-04-2020	Test Case (Pass/Fail/Not Executed)	Pass
----------------------	-----------	--------------------	------------	---	------

S #	Prerequisites:
1	JavaFX
2	Eclipse
3	JDBC

S #	Test Data
1	Goa
2	Bangalore
3	12/04/2020

Test Scenario Verify on the Customer Flight Search Functionality in Stark Airline

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspende d
1	Enter Departure	Departure place should show	As Expected,	Pass
2	Enter Arrival	Arrival place should show	As Expected,	Pass
3	Enter Date of Departure	Departure Date should show	As Expected	Pass
4	Click Search	Results of flights available for the data given by user	As Expected	Pass
5	Click Book Tickets	Book form should open	As Expected	Pass

Test Case ID	AU_005	Test Case Description	Test the Flight Booking Functionality in Stark Airline		
Created By	Utsav Das	Reviewed By	Shobha.P	Version	1.0

<u>QA Tester's Log</u>	Review Test the Flight Booking Functionality
-------------------------------	--

Tester's Name	Utsav Das	Date Tested	03-04-2020	Test Case (Pass/Fail/Not Executed)	Pass
----------------------	-----------	--------------------	------------	---	------

S #	Prerequisites:
1	JavaFX
2	Eclipse
3	JDBC

S #	Test Data
1	1231254
2	985
3	Bangalore

<u>Test Scenario</u>	Verify on Test the Flight Booking Functionality in Stark Airline
-----------------------------	--

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspende d
1	Enter Passport No	Credential can be entered	As Expected,	Pass
2	Enter Flight No	Credential can be entered	As Expected,	Pass
3	Enter From (Departure Place)	Credential can be entered	As Expected,	Pass
4	Enter To (Arrival Place)	Credential can be entered	As Expected	Pass
5	Enter First Name	Credential can be entered	As Expected	Pass
6	Enter Last Name	Credential can be entered	As Expected	Pass
7	Enter Category Flight Class	Credential can be entered	As Expected	Pass
8	Enter Date, Click Submit	Credential can be entered an Redirected to Search flights	As Expected	Pass

Test Case ID	AU_007	Test Case Description	Test the Settings Functionality in Stark Airline		
Created By	Utsav Das	Reviewed By	Shobha.P	Version	1.0

QA Tester's Log Review Test the Settings Functionality

Tester's Name	Utsav Das	Date Tested	03-04-2020	Test Case (Pass/Fail/Not Executed)	Pass
----------------------	-----------	--------------------	------------	---	------

S #	Prerequisites:
1	JavaFX
2	Eclipse
3	JDBC

S #	Test Data
1	Pass=pass
2	Pass = pass1
3	Karnataka

Test Scenario Verify on Test the Settings Functionality in Stark Airline

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	Enter old password & new password	Credential can be entered	As Expected,	Pass
2	Click Change password	Changes to new password	As Expected,	Pass
3	Enter State & City	Credential can be entered	As Expected	Pass
4	Enter Landmark & Pincode	Credential can be entered	As Expected,	Pass
5	Click Update	Update the Credential entered	As Expected,	Pass

Test Case ID	AU_008	Test Case Description	Test the Flight Cancel Functionality in Stark Airline		
Created By	Jayanth.C	Reviewed By	Shobha.P	Version	1.0

<u>QA Tester's Log</u>	Review Test the Flight Cancel Functionality
-------------------------------	---

Tester's Name	Jayanth.C	Date Tested	03-04-2020	Test Case (Pass/Fail/Not Executed)	Pass
----------------------	-----------	--------------------	------------	---	------

S #	Prerequisites:
1	JavaFX
2	Eclipse
3	JDBC

S #	Test Data
1	123456789
2	
3	

<u>Test Scenario</u>	Verify on Test the Flight Cancel Functionality in Stark Airline
-----------------------------	---

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	Enter the Passport No	Credential can be entered	As Expected,	Pass
2	Click Search	Display the Details of the Customer	As Expected,	Pass
3	Click Delete	Its Cancel the flight for the Customer	As Expected	Pass

CHAPTER 6

RESULTS

Splash Screen:-



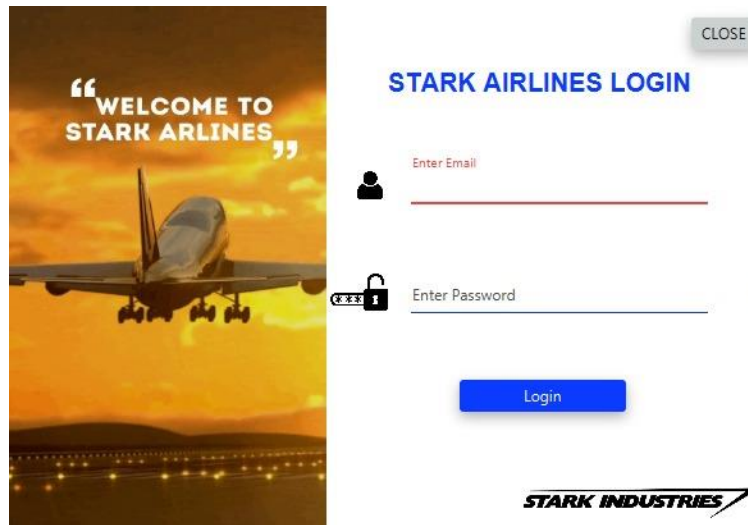
Fig.5.1

Login Page of Stark Airlines:-



Fig.5.2

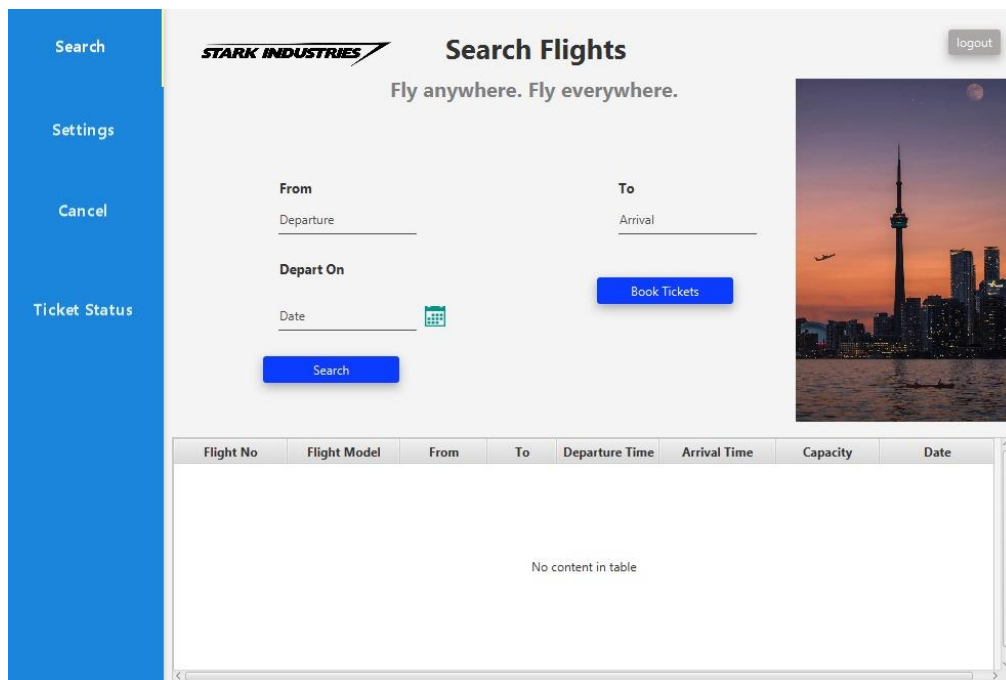
Customer Login Page of Stark Airlines:-



The login page features a vertical banner on the left with a sunset background and an airplane, displaying the text "WELCOME TO STARK AIRLINES". To the right, the heading "STARK AIRLINES LOGIN" is followed by a "CLOSE" button. Below this are two input fields: "Enter Email" with a person icon and "Enter Password" with a lock icon. A blue "Login" button is positioned below the password field. At the bottom right is the "STARK INDUSTRIES" logo.

Fig.5.3

Search Login Page



The search page has a blue sidebar on the left with links: "Search", "Settings", "Cancel", and "Ticket Status". The main content area is titled "STARK INDUSTRIES Search Flights" with the tagline "Fly anywhere. Fly everywhere." and a "logout" button in the top right. Below the title are input fields for "From" (Departure), "To" (Arrival), and "Depart On" (Date with a calendar icon). A "Search" button is below the date field, and a "Book Tickets" button is to the right. A large image of the Toronto skyline is on the right. At the bottom is a table with the following headers: Flight No, Flight Model, From, To, Departure Time, Arrival Time, Capacity, and Date. The table body contains the text "No content in table".

Flight No	Flight Model	From	To	Departure Time	Arrival Time	Capacity	Date
No content in table							

Fig.5.4

Settings Page for Customer:-

Search

Settings

Cancel

Ticket Status

Settings

logout

Change Password

Enter Old Password

Enter New Password

Change Password

Update Address

State

City

Landmark

Pincode

Update

STARK INDUSTRIES

Fig.5.5

Flight Cancel for Customer:-

Search

Settings

Cancel

Ticket Status

FLIGHT CANCEL

logout

Passport Number	First Name	Last Name	Flight No.	Source	Destination	Phone	Date	Customer ID	Category	Class ID
No content in table										

Delete

Passport No. _____

Search

STARK INDUSTRIES

Fig.5.6

Customer Ticket Status Page

Search

Settings

Cancel

Ticket Status

[logout](#)

TICKET STATUS

Passport No	Flight No	From	To	Phone No	First Name	Last Name	Date	Category	Class ID
123123	998	Delhi	Gujrat	3423244444	Utsav	das	2020-03-17	Child	2
213222	991	Banga...	Kolkata	4895734888	Sam	T	2020-09-23	Adult	2
231213	998	Banga...	Chennai	9987654321	Utsav	Das	2020-03-21	Adult	2
328974	998	Banga...	Goa	8665011019	Daarun	J K	2020-03-31	Adult	1
435434	995	Banga...	Goa	9987999999	Tarun	kumar	2020-03-11	Adult	3
634785	995	Goa	Gujrat	0987654361	Ram	S	2020-04-01	Adult	1
654222	995	Delhi	Punjab	9987611018	Tarun	kumar	2020-04-10	Child	2
687333	995	Banga...	Jharkh...	9986777777	Jyothi	kumari	2020-03-31	Adult	3
845325	995	Banga...	Delhi	9986000000	Jayanth	C	2020-03-25	Adult	1
987895	995	Gujarat	Mahar...	2314243245	Jayanth	C	2020-02-19	Child	1

Class ID	Class	Adult Price	Child Price
1	First Class	90000	50000
2	Business Cl...	30000	45000
3	Economy ...	20000	15000

Total Adult Amount : Rs. 370000

Total Child Amount : Rs. 140000

Total: Rs. 510000

[Confirm Order](#)

Fig.5.7

Payment Page:-

Payment

Total Amount Rs. 510000

Card number

Card Holder Name

CVV

Expiry Date

MM

/

YY

[Confirm](#)

Fig.5.8

Admin Menu Page:-**Add Flights Page:-**

ADD FLIGHTS

logout

+ Add Price + Add Flights

FLIGHT ID	FLIGHT NAME	SOURCE	DESTINATION	DEPARTURE TL...	ARRIVAL TIME	CAPACITY	DATE
123	airbus	blr	goa	9:00pm	10:00pm	123	2020-03-30
778	ZX-65	Kolkata	Goa	12:00 PM	6:00 PM	45	25-03-2020
787	AW-3	Goa	Delhi	2:00 PM	3:00 AM	67	2020-03-10
991	SR-67	Bangalore	Goa	11:00 AM	1:00 PM	65	2020-03-25
992	CR-45	Bangalore	Goa	10:45 AM	2:00 PM	45	2020-03-30
993	CW-33	Bangalore	Delhi	4:00 PM	7:00 AM	56	15-04-2020
995	AD-98	cvbncvbn	dfghj	12	13	3	
998	the	blr	che	12pm	11am	33	
999	AD-90	Bangalore	Kolkata	10:00 AM	1:00 PM	23	23-04-2020
4443	DE-78	Punjab	Delhi	12:00 PM	2:00 PM	67	24-03-2020
9999	QW-12	Bangalore	Jaipur	12:00 AM	1:00 pm	12	17-03-2020
32167	AP-78	blr	che	12	1	1	16-03-2020
45654	ytr	blr	goa	12pm	4am	4	10-03-2020

Delete

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Fig.5.9**Flight Tracking Page:-**

FLIGHT TRACKING

Load

logout

Lessen Your Corporate Mess
Make your team happy with 160+ Mac apps pack for literally any task from one subscription. Setapp for Teams

SIGN UP

STARK INDUSTRIES

Fig.5.10

Admin Ticket Status Page: -

TICKET STATUS

ID	Passport No	Flight No	From	To	Phone No	First Name	Last Name	Date	Category	Class ID
123123		998	Delhi	Gu...	3423244444	Utsav	das	2020-03-...	Child	2
213222		991	Bangal...	Kol...	4895734888	Sam	T	2020-09-...	Adult	2
231213		998	Bangal...	Ch...	9987654321	Utsav	Das	2020-03-...	Adult	2
328974		998	Bangal...	Goa	8665011019	Daarun	J K	2020-03-...	Adult	1
435434		995	Bangal...	Goa	9987999999	Tarun	kumar	2020-03-...	Adult	3
634785		995	Goa	Gu...	0987654361	Ram	S	2020-04-...	Adult	1
654222		995	Delhi	Pu...	9987611018	Tarun	kumar	2020-04-...	Child	2
687333		995	Bangal...	Jha...	9986777777	Jyothi	kumari	2020-03-...	Adult	3
845325		995	Bangal...	De...	9986000000	Jayanth	C	2020-03-...	Adult	1
987895		995	Gujarat	Ma...	2314243245	Jayanth	C	2020-02-...	Child	1

Class ID	Class	Adult Price	Child Price
1	First Class	90000	50000
2	Busines...	30000	45000
3	Econom...	20000	15000

STARK INDUSTRIES

Fig.5.11

Settings Page for Admin: -

SETTINGS

Change Password

Enter Old Password

Enter New Password

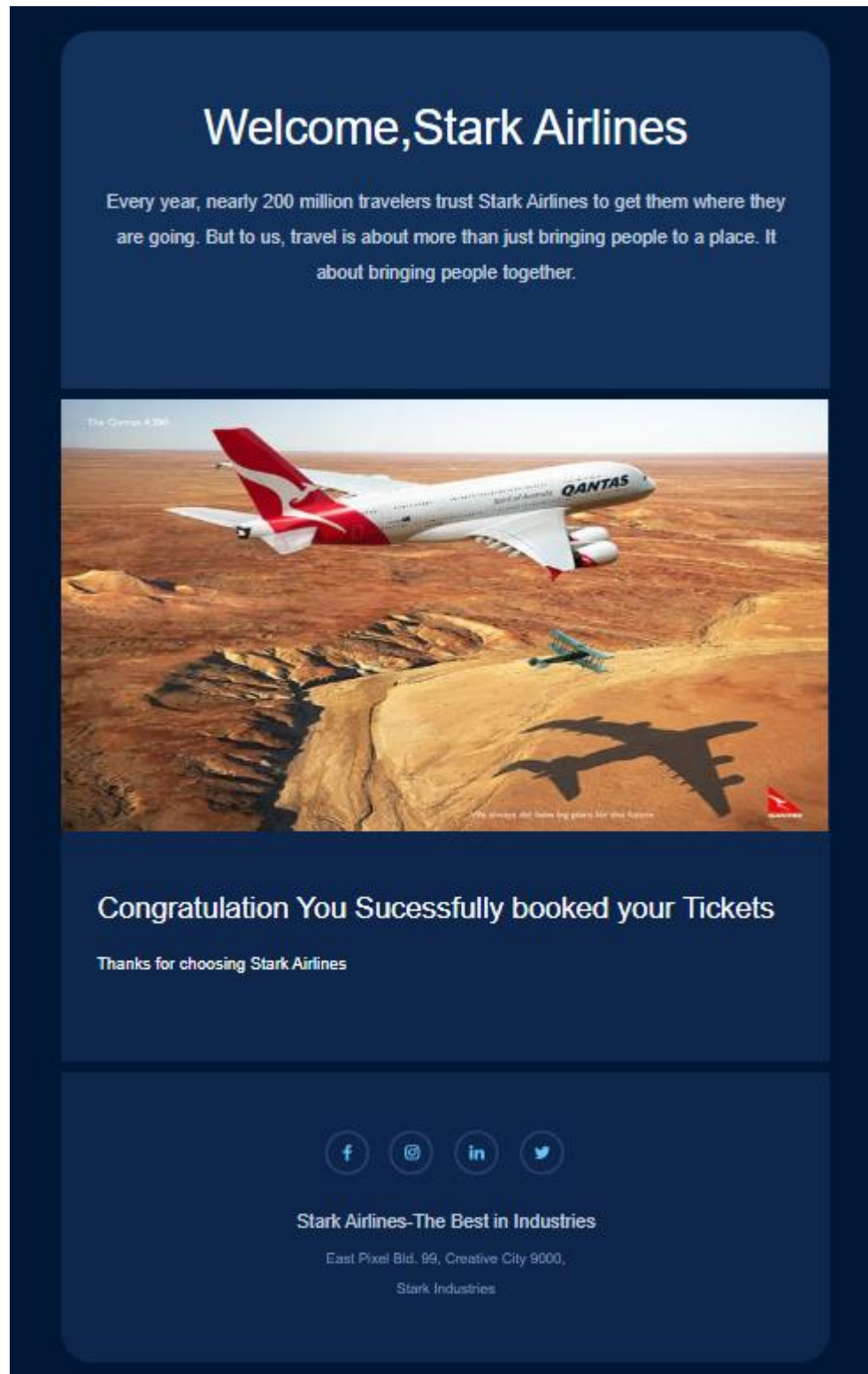
Change Password

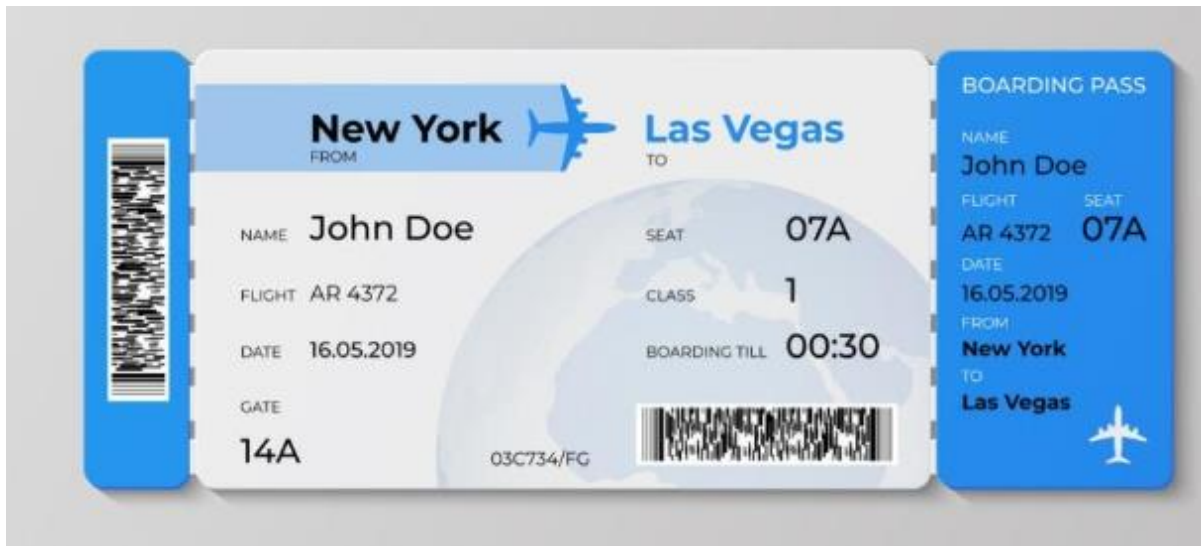
List Of Admin's

ID	First Name	Last Name	E-Mail	Phone No.
1	admin	d	d@gmail.c...	1234567890
2	utsav	d	ud@gmail...	0987654321

STARK INDUSTRIES

Fig.5.12

E-Mail Facility with attachment of Ticket: -**Fig.5.13**

Ticket Mail Attachment: -**Fig.5.14**

CHAPTER 7

CONCLUSION

Our aim during this project was to make an Airline Management System to supply a contemporary , flexible reservations and inventory management solutions for Airlines. The Airline reservation system a java project isn't an exception. With working employees traveling 24/7 this software accelerates your reservation process and makes it convenient for the purchasers to book flights whenever and wherever.

It reduces the scope of manual error and conveniently maintains any modifications, cancellations within the reservations. It not only provides flight details but also but also creates a platform to book tickets, cancels or modifies ticket timings or dates and even informs about the amount of individuals on board!

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PLAGARISM REPORT

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INTRODUCTION 1.1 PROJECT OVERVIEW Airline Management System contains the details about flight schedules and fare tariffs, passenger reservations and ticket records. Air Alliance operates flights to 30 destinations in India namely Bangalore, Allahabad, Bhopal, Delhi, Hyderabad, Jaipur, Gujrat, Kolkata, Pune, Raipur, Mumbai etc. 1.2 PROJECT DESCRIPTION Airline Management System will store the flight schedules, passenger reservations ,ticket records. It saves time as it allows online procedure as users no longer wait in a queue to book the flights.Admin is the main charge who can do addition, deletion and modification of flights if required. The project has been planned to having the view of distributed architecture and centralized storage of the database. Using the constructs of the database MySQL and all the user interfaces have been designed using the Scene Builder. The database connection is planned using JDBC connection methodology. The application maintains related data and different modules, which were produced as per applicable plans and standards, which are created by the administrative staff. 1.3 OBJECTIVE The development of a reservation system focuses on certain goals. These said purposes are classified and expound as follows: General Objective To make use of the technology through an improved automated transaction of airline reservation and cancellation system. Thus, minimizing the errors that resulted from the prior systems. It is projected towards the improvement of relationship between the customers and the airline . The project specifically aims: 1. To develop an upgraded airline reservation system for the company. 2. To store and collect accurate information from the customers. 3. To provide convenience to the users through an online reservation system and a good customer service. 4. To design an airline reservation system that is simple, user-friendly and easy to understand. 5. To execute a design that will lessen the omission of errors. Importance of the Study the proponents aim to create a reservation system that benefits different sectors of the community. Those said sectors are specifically enumerated as follows: Passengers -This system will provide convenience to the passengers when it comes to booking process. Since it is accessible through internet, the passengers will have more time to schedule their respective flights, early check-ins and updates, and cancellations. Airlines - This system is important because it helps to manage the process and their passenger's flights in a more organize and convenient way. Online reservation system can open its door to more passengers since it is reachable to more people. 1.4 LIMITATIONS The study aims to create a system which is designed to arrange flights to be made through internet. This said to be developed system accommodates only specific areas and persons, as well as limited to certain situations. The following further explains scope and limitations of the reservation system. The reservation system is intended to serve only: 1. The customer that has a registered account in the airline's system. 2. The reservation of flights as well as cancellation of the already scheduled flights. The reservation system has certain boundaries. These include: 1. Reservation or cancellation of flights should be done virtually. 2. It does not include the process of paying for the flight scheduled.

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The airline reservation system is a computerized system used to store, retrieve information. The project is aimed at exposing the importance of Airline Reservation Systems. Its aim is to enhance and improve the relationship between customers and airline agencies through the use of the Airline reservation System, and hence making it suitable for the customers to book flights as when they require. They can also utilize this software to make reservations and cancel reservations. This software has two section. First is the customer's section and second is the administrator section. Administrator is used by airline authority. The customer's part is used as a front end and the administrator is the back end. It will allow the customers to access database and allow new customers to signup for online access. The system allows the airline passenger to search for flights that are available between the two "Source" and "Destination" travel cities at the particular departure date, namely the "Departure Date". The system displays all the flight's details such as flight no, name, price arrival time, departure time, capacity etc. After search the system display list of available flights and allows customer to see a particular flight. To book a flight the system asks the customer to enter his details such as passport no., first name, last name, flight number, source, destination, and phone number. It also checks the validity of the debit/credit card and book the flight. It updates the airline database and user database. It also has the facility to send attached E-ticket as an E-Mail to the customer. The airline management system also allows the customer to cancel his/her reservation, if any problem occurs. The main purpose of this software is to decrease the manual mistakes involved in the airline reservation process and to make it suitable for the customers to book the flights as when they require. The Customers can utilize this software to make reservations, modify reservations or cancel a particular reservation

Sources	Similarity
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4.1 CLASSES AND OBJECTS A Class may be a user-defined data-type which has data members and member functions. Data members are the info variables and member functions are the functions wont to manipulate these variables and together these data members and member functions define the properties and behavior of the objects in a Class. An Object is an instance of a Class. When a category is defined, no memory is allocated but when it's instantiated (i.e. an object is created) memory is allocated. 4.2 JDBC JDBC stands for Java Database Connectivity. JDBC may be a Java API to attach and execute the query with the database. It is a neighborhood of JavaSE (Java Standard Edition). JDBC API uses JDBC drivers to attach with the database. There are four types of JDBC drivers: o JDBC-ODBC Bridge Driver, o Native Driver, o Network Protocol Driver, and o Thin Driver 4.3 JavaFX JavaFX may be a Java library that's wont to develop Desktop applications also as Rich Internet Applications (RIA). The applications inbuilt JavaFX, can run on multiple platforms including Web, Mobile and Desktops. Our JavaFX tutorial includes all topics of JavaFX library like Fundamentals, 2D Shapes, 3D Shapes, Effects, Animation, Text, Layouts, UI Controls, Transformations, Charts, JavaFX with CSS, JavaFX with Media etc. [1] 4.4 EVENT HANDLING Event Handling is that the mechanism that controls the event and decides what should happen if an occasion occurs. This mechanism have the code which is understood as event handler that's executed when an occasion occurs. Java Uses the Delegation Event Model to handle the events. 4.5 JFoenix JFoenix is an open source Java library, that implements Google Material Design using java components. 4.6 Abstraction The system allows the airline passenger to look for flights that are available between the 2 travel cities, namely the "Departure city" and "Arrival city" for a specific departure and arrival dates. The system displays all the flight's details like flight no, name, price and duration of journey etc. 4.7 Multithreading The sequence of flow to different stages in JavaFX is handled by Threads .So each Stage the JavaFX stage is handled by individual Threads. Due the Process is Distributed to CPU. 4.8 Exceptional Handling Exception handling has played a serious role to handle the exception(errors) in our Project work. It's help has Application to tell the users or Admins present to right the errors they made, making the Application more Robust. DIFFERENT MODULES 4.9 MYSQL-CONNECTOR-JAVA-8.0.19.- MySQL Connector/ODBC (sometimes called just Connector/ODBC or MyODBC) may be a driver for connecting to a MySQL database server through the Open Database Connectivity (ODBC) application interface (API), which is the standard means of connecting to any database. 4.10 SCENE BUILDER:- JavaFX Scene Builder may be a visual layout tool that lets users quickly design JavaFX application user interfaces, without coding. Users can drag and drop UI components to a piece area, modify their properties, apply style sheets, and therefore the FXML code for the layout that they're creating is automatically generated in the background. The result's an FXML file which will then be combined with a Java project by binding the UI to the application's logic. 4.11 JavaFX:- JavaFX comes with an outsized set of built-in GUI components, like buttons, text fields, tables, trees, menus, charts and far more. That saves you tons of your time when building desktop applications. JavaFX components are often styled using CSS, and you'll use FXML to compose a GUI rather than doing it in Java code. This makes it easier to quickly put a GUI together, or change the looks or composition without having to fiddle within the Java code. JavaFX contains a group of ready-to-use chart components, so you do not need to code that from scratch whenever you would like a basic chart. JavaFX also comes with support for 2D and 3D graphics also as audio and video support. This is useful if you're developing a game, or similar media applications. JavaFX even contains a WebView supported the favored WebKit browser, so you'll embed sites or web applications inside JavaFX.

Sources

Similarity

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<p>here</p>	10%
<p>Abstract for Airline Reservation System</p> <p>The system allows the airline passenger to search for flights that are available between the two travel cities, namely the "Departure city" and "Arrival city" for a particular departure and arrival dates. The system displays all the flight's details such as flight no, name...</p> <p>https://studylib.net/doc/7178497/abstract-for-airline-reservation-system</p>	5%
<p>The system allows the airline passenger to search for flights that are ...</p> <p>The system displays all the flight's details such as flight no, name, price and duration of journey etc. After search the system display list of available flights and ...</p> <p>https://www.coursehero.com/file/p4h485o/The-system-allows-the-airline-passenger-to-search-for-flights-that-are/</p>	5%
<p>JavaFX Scene Builder Information - Oracle</p> <p>Users can drag and drop UI components to a work area, modify their properties, apply style sheets, and the FXML code for the layout that they are creating is ...</p> <p>https://www.oracle.com/technetwork/java/javase/downloads/javafxscenebuilder-info-2157684.html</p>	7%
<p>JavaFX Training PHP Training CCNA, CCNP, Android ...</p> <p>JavaFX comes with a large set of built-in GUI components, like buttons, text fields, tables, trees, menus, charts and much more. That saves you a lot of time when ...</p> <p>https://www.trinitytechnology.in/javafx-training-in-trivandrum/</p>	4%

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Our aim during this project was to make an Airline Management System to supply a contemporary , flexible reservations and inventory management solutions for Airlines. The Airline reservation system a java project isn't an exception. With working employees traveling 24/7 this software accelerates your reservation process and makes it convenient for the purchasers to book flights whenever and wherever. It reduces the scope of manual error and conveniently maintains any modifications, cancellations within the reservations. It not only provides flight details but also but also creates a platform to book tickets, cancels or modifies ticket timings or dates and even informs about the amount of individuals on board!

Sources	Similarity
<p>Conclusion for project on airline reservation - Brainly.in</p> <p>It not only provides flight details but also but also creates a platform to book tickets, cancels or modifies ticket timings or dates and even informs about the number of people on board! I hope it helps you.</p> <p>https://brainly.in/question/3119838</p>	20%