

SPECIFICATION

DOCUMENT

Of

FlyAway

A Web Application

>>> Developer : SAI KRISHNA CHENNAKESAVULA

>>> Developer Email : chsaikrishna6489@gmail.com

>>> Designation : Full stack JAVA developer

JAVA FULL STACK DEVELOPER PHASE 2 PROJECT

INDEX

1 PROJECT DETAILS	3
1.1 Developer Details	
1.2 Project Specifications	
1.3 Product Capabilities	
2 APPEARANACE AND USER INTERACTION	4
3 ALGORITHM OF APPLICATION	13
4 FLOW CHART	16
5 AGILE SCRUM FLOW	17
5.1 Step By Step Process	
5.2 No: Of Sprints	
5.3 Tasks Achieved	
6 GITHUB LINK	23
7 CORE CONCEPTS USED	23

DEVELOPER DETAILS:

>>> Developer : Sai Krishna Chennakesavula
>>> Developer Email : chsaikrishna6489@gmail.com
>>> Designation : Full Stack Java Developer

PROJECT DETAILS:

>>> Project Name : FlyAway
>>> Project Type : Web Application
>>> Project Concept : Flight Booking System
>>> Language Used: JAVA 8
>>> Methodology Used : Agile Scrum
>>> Project Duration : 2 Weeks
>>> Project Started : 16-10-2020
>>> Project Submitted : 30-11-2020
>>> Software used : Eclipse
>>> Technologies used : JAVA EE, MYSQL, Hibernate

PRODUCT'S CAPABILITIES:

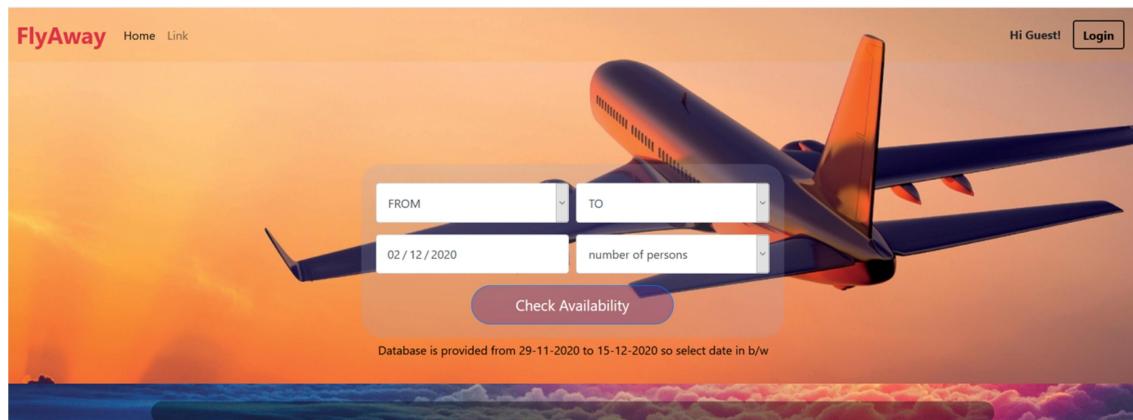
>>> User can book a flight.
>>> User can register and login to view previous booking history.
>>> Admin can view the master list of flights and can edit and delete them.
>>> Admin can view the master list of cities and can add and delete them.
>>> Admin can view the master list of airlines.

APPEARANCE AND USER INTERACTION

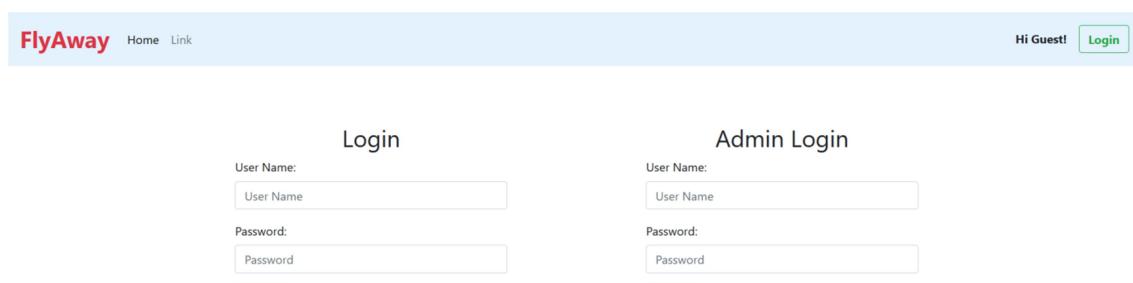
The flow of web application is shown below:

Step 1: Below is the welcome page of the website.

1. In the header, we can see the logo of the website, home, link and login buttons.
2. Below the header section, we can check the availability of the flights by filling the below details.



Step 2: When we enter login page, separate login for admin and user are displayed.



Step 3: ADMIN LOGIN:

In admin login, admin has the prefixed username 'admin' and password 'admin'.

Login User Name: <input type="text" value="User Name"/> Password: <input type="password" value="Password"/> <input type="button" value="Submit"/> Not Registered Yet Click here	Admin Login User Name: <input type="text" value="admin"/> Password: <input type="password" value="*****"/> <input type="button" value="Submit"/>
--	--

Step 4: After admin logged in, it redirects to Admin Dashboard.

1. In Admin Dashboard, admin can view the Master list of flights, Master list of cities, Master list of airlines and change password.

FlyAway	Home	Link	Hi Admin!	Admin Dashboard	Logout																																																						
master list of flights master list of cities master list of airlines Change password			ADD NEW FLIGHT																																																								
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">AirIndia</th> <th style="width: 15%;">07:30 - 11:00</th> <th style="width: 15%;">Non-stop</th> <th style="width: 15%;">₹ 4599</th> <th style="width: 15%; text-align: right;">DELETE</th> <th style="width: 15%; text-align: right;">EDIT</th> </tr> </thead> <tbody> <tr> <td>CD25676</td> <td>Chennai - Delhi</td> <td>3h 30m</td> <td>190 instant off</td> <td style="text-align: right;">[Red]</td> <td style="text-align: right;">[Yellow]</td> </tr> </tbody> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">GoAir</th> <th style="width: 15%;">11:30 - 17:15</th> <th style="width: 15%;">Non-stop</th> <th style="width: 15%;">₹ 4999</th> <th style="width: 15%; text-align: right;">DELETE</th> <th style="width: 15%; text-align: right;">EDIT</th> </tr> </thead> <tbody> <tr> <td>GF10259</td> <td>Chennai - Mumbai</td> <td>5h 45m</td> <td>190 instant off</td> <td style="text-align: right;">[Red]</td> <td style="text-align: right;">[Yellow]</td> </tr> </tbody> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">Deccan</th> <th style="width: 15%;">17:30 - 19:00</th> <th style="width: 15%;">Non-stop</th> <th style="width: 15%;">₹ 3250</th> <th style="width: 15%; text-align: right;">DELETE</th> <th style="width: 15%; text-align: right;">EDIT</th> </tr> </thead> <tbody> <tr> <td>HS22325</td> <td>Chennai - Hyderabad</td> <td>1h 30m</td> <td>190 instant off</td> <td style="text-align: right;">[Red]</td> <td style="text-align: right;">[Yellow]</td> </tr> </tbody> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">GoAir</th> <th style="width: 15%;">19:00 - 21:10</th> <th style="width: 15%;">Non-stop</th> <th style="width: 15%;">₹ 3450</th> <th style="width: 15%; text-align: right;">DELETE</th> <th style="width: 15%; text-align: right;">EDIT</th> </tr> </thead> <tbody> <tr> <td>BR80963</td> <td>Delhi - Mumbai</td> <td>2h 10m</td> <td>190 instant off</td> <td style="text-align: right;">[Red]</td> <td style="text-align: right;">[Yellow]</td> </tr> </tbody> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">AirAsia</th> <th style="width: 15%;">01:15 - 02:50</th> <th style="width: 15%;">Non-stop</th> <th style="width: 15%;">₹ 7200</th> <th style="width: 15%; text-align: right;">DELETE</th> <th style="width: 15%; text-align: right;">EDIT</th> </tr> </thead> </table>						AirIndia	07:30 - 11:00	Non-stop	₹ 4599	DELETE	EDIT	CD25676	Chennai - Delhi	3h 30m	190 instant off	[Red]	[Yellow]	GoAir	11:30 - 17:15	Non-stop	₹ 4999	DELETE	EDIT	GF10259	Chennai - Mumbai	5h 45m	190 instant off	[Red]	[Yellow]	Deccan	17:30 - 19:00	Non-stop	₹ 3250	DELETE	EDIT	HS22325	Chennai - Hyderabad	1h 30m	190 instant off	[Red]	[Yellow]	GoAir	19:00 - 21:10	Non-stop	₹ 3450	DELETE	EDIT	BR80963	Delhi - Mumbai	2h 10m	190 instant off	[Red]	[Yellow]	AirAsia	01:15 - 02:50	Non-stop	₹ 7200	DELETE	EDIT
AirIndia	07:30 - 11:00	Non-stop	₹ 4599	DELETE	EDIT																																																						
CD25676	Chennai - Delhi	3h 30m	190 instant off	[Red]	[Yellow]																																																						
GoAir	11:30 - 17:15	Non-stop	₹ 4999	DELETE	EDIT																																																						
GF10259	Chennai - Mumbai	5h 45m	190 instant off	[Red]	[Yellow]																																																						
Deccan	17:30 - 19:00	Non-stop	₹ 3250	DELETE	EDIT																																																						
HS22325	Chennai - Hyderabad	1h 30m	190 instant off	[Red]	[Yellow]																																																						
GoAir	19:00 - 21:10	Non-stop	₹ 3450	DELETE	EDIT																																																						
BR80963	Delhi - Mumbai	2h 10m	190 instant off	[Red]	[Yellow]																																																						
AirAsia	01:15 - 02:50	Non-stop	₹ 7200	DELETE	EDIT																																																						

Step 5: By entering the master list of flights, admin can view the total number of flights available.

1. The admin can delete, add new flight or edit flight details.

Airline	Flight no.	Departure Time	Arrival Time	Duration	Fare	Action
AirIndia	CD25676	07:30	11:00	Non-stop 3h 30m	₹ 4599 190 instant off	<button>DELETE</button> <button>EDIT</button>
GoAir	GF10259	11:30	17:15	Non-stop 5h 45m	₹ 4999 190 instant off	<button>DELETE</button> <button>EDIT</button>
Deccan	HS22325	17:30	19:00	Non-stop 1h 30m	₹ 3250 190 instant off	<button>DELETE</button> <button>EDIT</button>
GoAir	BR80963	19:00	21:10	Non-stop 2h 10m	₹ 3450 190 instant off	<button>DELETE</button> <button>EDIT</button>
		21:15	22:50		₹ 7200	<button>DELETE</button>

Step 6: The admin can add new flight by filling the below details.

ADD FLIGHT

Flight no:	airline:	Travel date:
Flight no	Choose...	dd / mm / yyyy
Start time:	Arrival date:	End time:
--:-- --	dd / mm / yyyy	--:-- --
From:	To:	Fare:
From:	To	
ADD FLIGHT		

Step 7: The admin can edit the flight details in the EDIT FLIGHT page.

The screenshot shows the FlyAway Admin Dashboard with the following layout:

- Top navigation bar: FlyAway, Home, Link, Hi Admin!, Admin Dashboard, Logout.
- Buttons: master list of flights, master list of cities, master list of airlines, Change password.
- Main content area: A green box titled "EDIT FLIGHT". Inside, there are fields for Flight no. (CD25676), airline (AirIndia), Travel date (30/11/2020), Start time (07:30 am), Arrival date (dd/mm/yyyy), End time (11:00 am), From (Chennai), To (Delhi), and Fare (4599). Below these is a blue "EDIT FLIGHT" button.

Step 8: By entering the master list of cities, admin can view all available cities.

1. The admin can add or delete the places.

The screenshot shows the FlyAway Admin Dashboard with the following layout:

- Top navigation bar: FlyAway, Home, Link, Hi Admin!, Admin Dashboard, Logout.
- Buttons: master list of flights, master list of cities, master list of airlines, Change password.
- Main content area: A section titled "master list of cities" with a search input "Type place name" and a green "ADD PLACE" button. Below it is a table of cities with "DELETE" buttons:

Chennai	DELETE	Delhi	DELETE
Mumbai	DELETE	Hyderabad	DELETE

Step 9: By entering the master list of airlines, admin can view all airlines.

The screenshot shows the FlyAway Admin Dashboard with the following layout:

- Top navigation bar: FlyAway, Home, Link, Hi Admin!, Admin Dashboard, Logout.
- Buttons: master list of flights, master list of cities, master list of airlines, Change password.
- Main content area: A section titled "AIRLINES" with four airline names listed in green boxes: AirIndia, GoAir, Deccan, and SpiceXpres.

Step 10: The admin can change the password by entering the new password.

The screenshot shows the FlyAway Admin Dashboard. At the top right, it says "Hi Admin!" with links to "Admin Dashboard" and "Logout". Below that is a row of buttons: "master list of flights", "master list of cities", "master list of airlines", and a blue button labeled "Change password" which is circled in red. Underneath these buttons is a form field labeled "New Password:" with a placeholder "Type your Password" and a green "Change password" button.

Step 11: USER LOGIN:

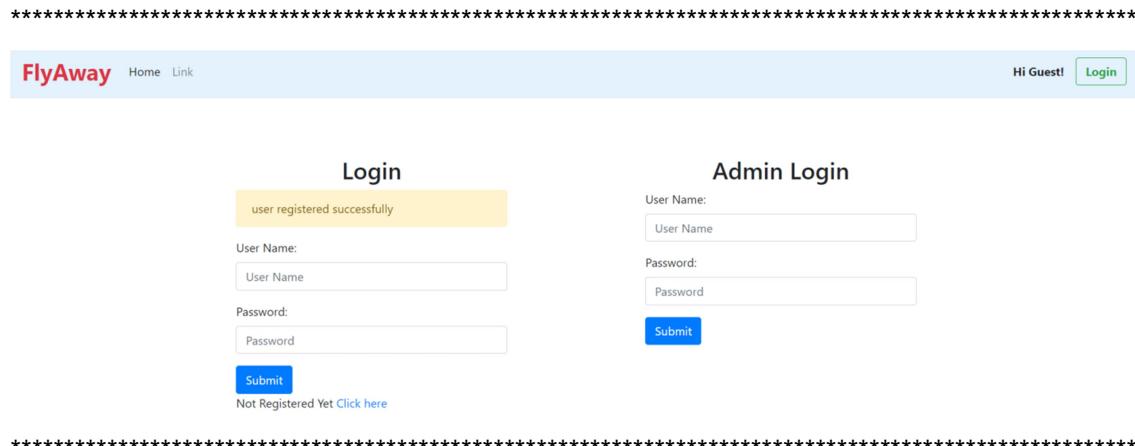
In the user login, first the user needs to register in the website.

The screenshot shows the FlyAway User Login page. At the top right, it says "Hi Guest!" with a "Login" button. Below that are two forms: "Login" on the left and "Admin Login" on the right. Both forms have "User Name:" and "Password:" fields and "Submit" buttons. Under the "Login" form, there is a link "Not Registered Yet? Click here" which is circled in red.

Step 12: By clicking the 'click here' button, the below registration form will be displayed.

The screenshot shows the FlyAway Registration form. At the top right, it says "Hi Guest!" with a "Login" button. The form is titled "Register" and contains fields for "First name" (with placeholder "Enter first name"), "Last name" (with placeholder "Enter last name"), "Email address" (with placeholder "Enter email"), "Phone number" (with placeholder "Enter phone number"), "User name" (with placeholder "Enter username"), and "Password" (with placeholder "Enter password"). Below these fields is a small note: "We'll never share your phone no and email with anyone else." and a blue "REGISTER" button.

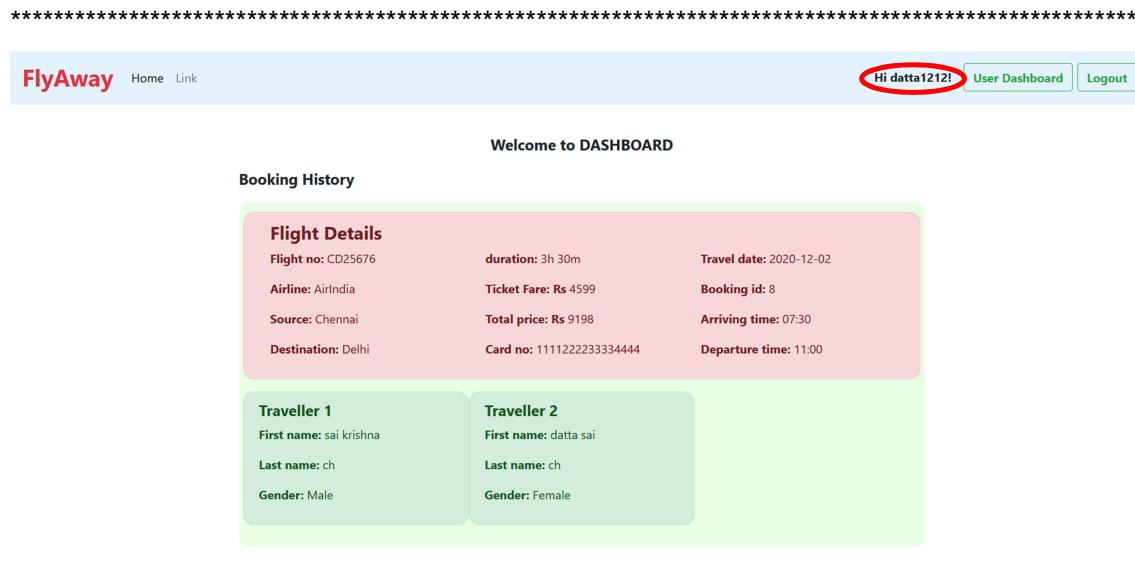
Step 13: After user registers, it redirects to login page and displays ‘user registered successfully’.



The screenshot shows the FlyAway login page. At the top, there is a header bar with the FlyAway logo, a Home link, and a Guest login button. Below the header, the main content area has a title "Login". A yellow success message box contains the text "user registered successfully". Below the message are two input fields for "User Name" and "Password", each with a placeholder "User Name" or "Password". To the right of the fields is a blue "Submit" button. At the bottom of the form, there is a link "Not Registered Yet Click here".

Step 14: After user login, it redirects to the User Dashboard page.

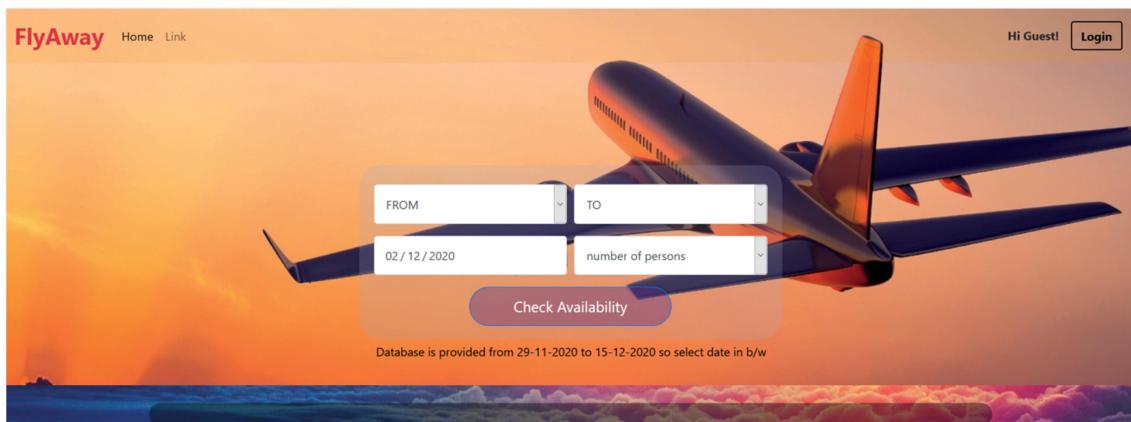
In the User Dashboard page, it displays previous booking history and user name is displayed beside User Dashboard button.



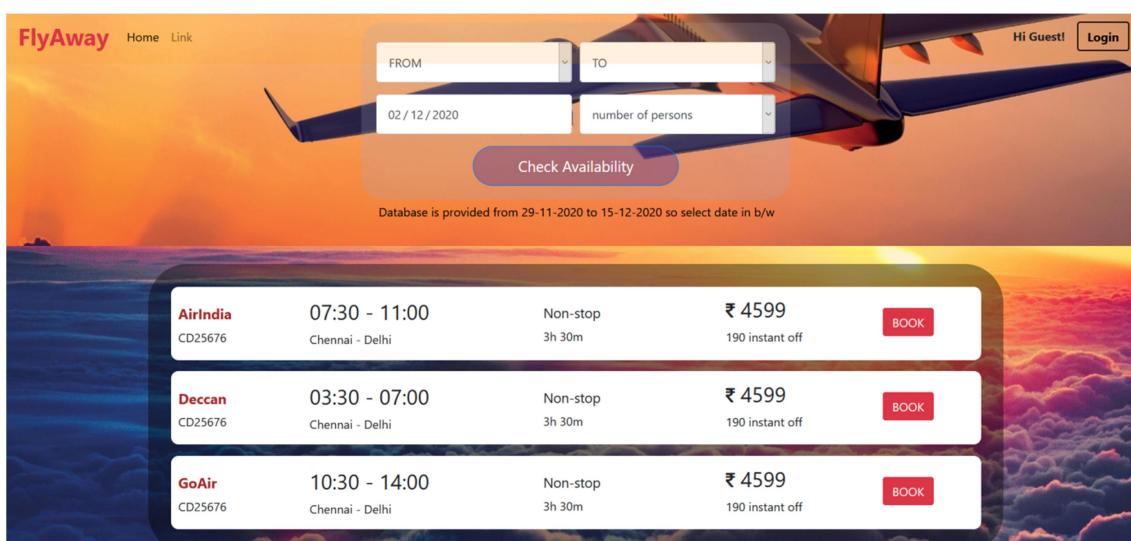
The screenshot shows the FlyAway User Dashboard page. At the top, there is a header bar with the FlyAway logo, a Home link, and a Guest login button. The guest login button now displays "Hi datta1212!". Below the header, the main content area has a title "Welcome to DASHBOARD". Underneath, there is a section titled "Booking History" which includes a "Flight Details" summary and two "Traveller" details sections. The "Flight Details" summary shows: Flight no: CD25676, duration: 3h 30m, Travel date: 2020-12-02; Airline: AirIndia, Ticket Fare: Rs 4599, Booking id: 8; Source: Chennai, Total price: Rs 9198, Arriving time: 07:30; Destination: Delhi, Card no: 1111222233334444, Departure time: 11:00. The "Traveller 1" section shows: First name: sai krishna, Last name: ch, Gender: Male. The "Traveller 2" section shows: First name: datta sai, Last name: ch, Gender: Female.

Step 15: BOOKING A FLIGHT:

To check the availability of the flights, the user need to enter the below details in the homepage.

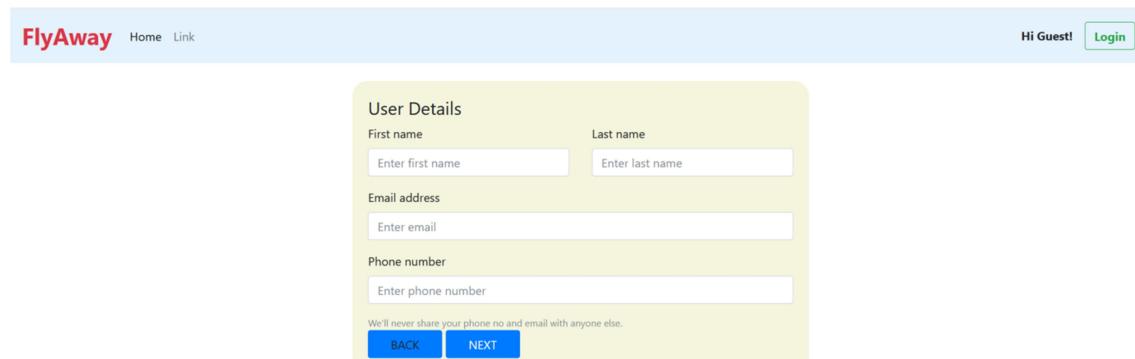


Step 16: After clicking 'check availability' button, the list of available flights will be displayed below.



Step 17: Select a flight by clicking on the ‘book’ button. Then the page redirects to user details form page.

1. If user is a guest user, user needs to fill all the details.

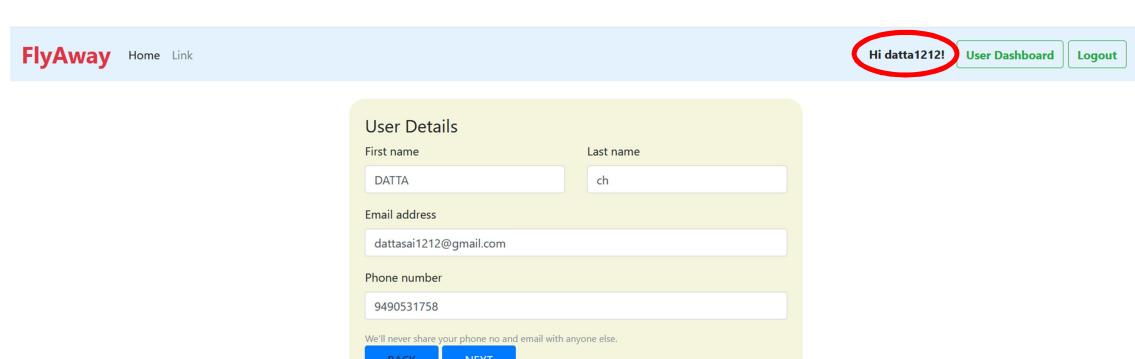


The screenshot shows the 'User Details' form on the FlyAway website. At the top right, it says 'Hi Guest!' with a 'Login' button. The form fields are as follows:

- First name: Enter first name
- Last name: Enter last name
- Email address: Enter email
- Phone number: Enter phone number

Below the fields, a note says: "We'll never share your phone no and email with anyone else." At the bottom are 'BACK' and 'NEXT' buttons.

Step 18: If user is a logged in user, the user details will be automatically filled.



The screenshot shows the 'User Details' form on the FlyAway website. At the top right, it says 'Hi datta1212!' with a red circle around it, followed by 'User Dashboard' and 'Logout' buttons. The form fields are pre-filled with the user's information:

- First name: DATTA
- Last name: ch
- Email address: dattasai1212@gmail.com
- Phone number: 9490531758

Below the fields, a note says: "We'll never share your phone no and email with anyone else." At the bottom are 'BACK' and 'NEXT' buttons.

Step 19: After submitting user details, the booking and payment form will be displayed.

FlyAway Home Link Hi Guest! Login

Traveller 1
Enter first name _____ Enter last name _____
Male Female

Traveller 2
Enter first name _____ Enter last name _____
Male Female

Payment
Credit card Debit card
Name on card _____ Card number _____
Expiration _____ CVV _____

No of Persons: 2
FARE 4599
Total Amount 9198
Promo code _____ Redeem _____

Flight Details:
Flight no: CD25676
Airline: Deccan
Source: Chennai
Destination: Delhi
duration: 3h 30m
Travel date: 2020-12-02
Arriving time: 03:30
Departure time: 07:00

Continue to checkout

Step 20: After submitting, traveller and payment details, booking successful page will be displayed along with booking details.

FlyAway Home Link Hi Guest! Login

Return to Home page

Your ticket has been successfully booked

User Details
First name: sai krishna Email: chsaikrishna6489@gmail.com
Last name: ch Phone number: 9490531758

Flight Details
Flight no: CD25676 Arriving time: 03:30
Airline: Deccan Departure time: 07:00
Source: Chennai duration: 3h 30m
Destination: Delhi Ticket Fare: Rs 4599
Travel date: 2020-12-02 Total price: Rs 9198
Booking id: 5 Card no: 2222333344445555

Traveller Details:
1) First name: sai krishna Last name: ch Gender: Male
2) First name: satyanarayana Last name: ch Gender: Male

ALGORITHM OF APPLICATION

Step-1: START

Step-2: DISPLAYS welcome page

Step-3: DISPLAYS login

DISPLAYS check available flights

Step-4:

Step-4.1: IF Admin then, GO TO Step-5

Step-4.2: IF logged in user then, GO TO Step-30

Step-4.3: IF Guest users then, GO TO Step-13

Step-5: CLICK login DISPLAYS admin login and user login forms

Step-6: INSERT admin details

Step-7: CLICK admin login

Step-8: DISPLAYS admin Dashboard

Step-8.1: To VIEW Master list of flights page, GOTO step-9

Step-8.2: To VIEW Master list of cities page, GOTO step-10

Step-8.3: To VIEW Master list of airlines page, GOTO step-11

Step-8.4: TO change password, GOTO step-12

Step-8.5: To Logout, GOTO step-33

Step-9: DISPLAYS Master list of flights

Step-9.1: To ADD flight, CLICK Add flight

Step-9.2: To EDIT flight, CLICK EDIT

Step-9.3: To DELETE flight, CLICK delete

Step-9.4: GOTO step 8

Step-10: DISPLAYS Master list of cities

Step-10.1: To ADD city, CLICK Add place

Step-10.2: To DELETE city, CLICK delete

Step-10.3: GOTO step-8

Step-11: DISPLAYS Master list of airlines, GOTO Step-8

Step-12: Step-12.1: ENTER new password

Step-12.2: SUBMIT password

Step-12.3: GOTO step-8

Step-13: Guest user

Step-13.1: TO Signup, GO TO Step - 14

Step-13.2: TO book a flight, GO TO Step - 15

Step-14: CLICK Register

Step-14.1: DISPLAYS registration form

Step-14.2: FILL the form

Step-14.3: SUBMIT the form

Step-14.4: GOTO Step 13

Step-15: DISPLAYS welcome page

Step-16: DISPLAYS flight search form

Step-17: INSERT search details

Step-18: DISPLAYS available flight list

Step-19: click BOOK on the respective flight

Step-20: DISPLAYS user details form

Step-21: CHECKS if user logged in

Step-21.1 : IF user logged in then, GO TO Step - 22

Step-21.2 : IF user not logged in or guest user then, GO TO Step - 23

Step-22: Automatically fills user details

Step-23: INSERT user details

Step-24: SUBMIT user details

Step-25: DISPLAYS booking and payment form

Step-26: FILL the details

Step-27: SUBMIT the details

Step-28: DISPLAYS booking successful page

Step-29: GOTO step-33

Step-30:

Step-30.1: TO VIEW Dashboard, GO TO Step - 31

Step-30.2: TO book a flight, GO TO Step - 15

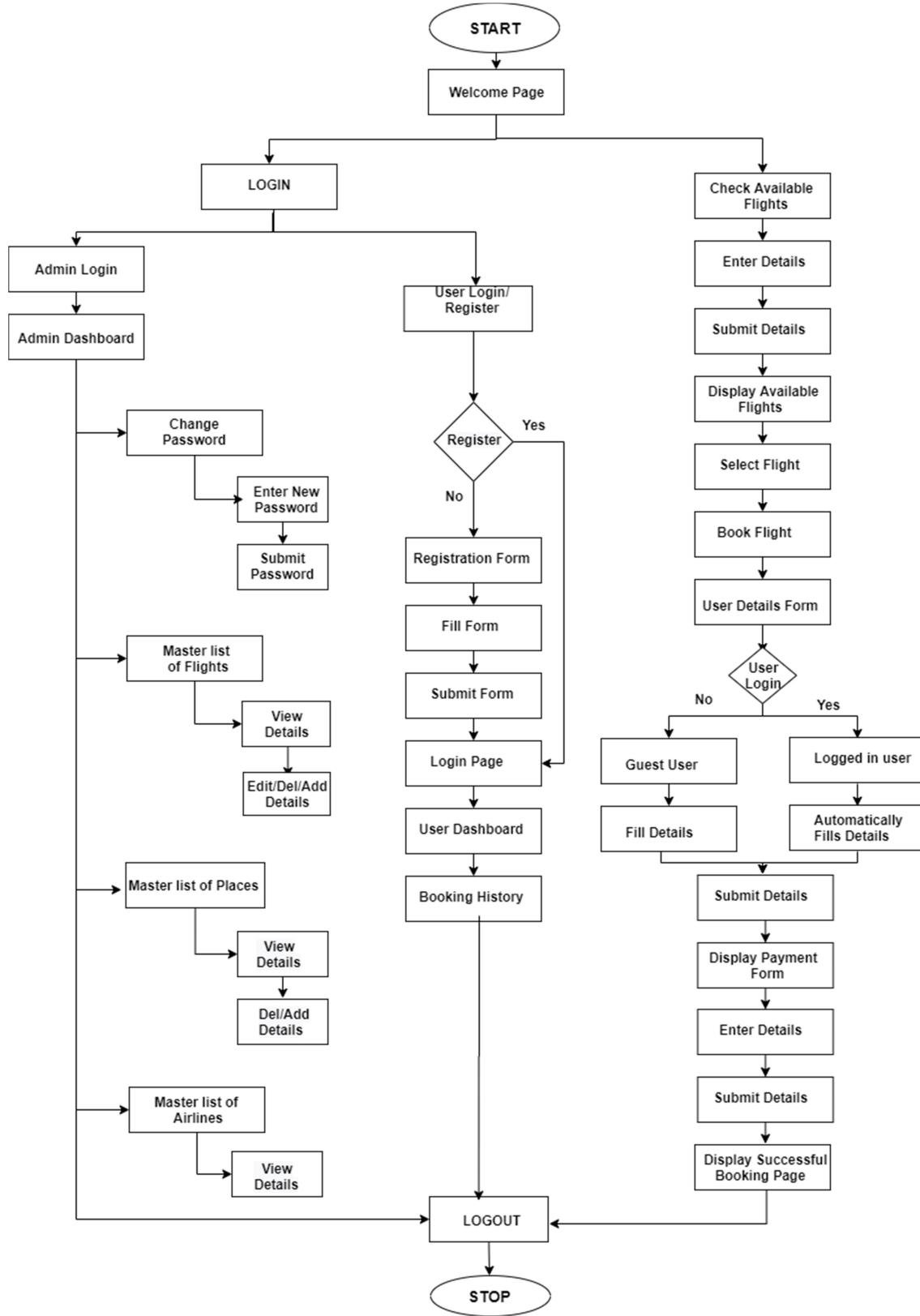
Step-31: DISPLAYS user Dashboard page

Step-32: VIEW booking history

Step-33: Logout

Step-34: Stop

FLOW CHART



AGILE SCRUM FLOW

Step-1: started writing all user stories

Created 12 user stories

Step-2: made the estimation of all the user stories

Estimated for all the 12 user stories

Step-3: prioritised the user stories

Title: Welcome Page	Priority : high	Size: 4
As a user I want to display a check availability and login button so that I can login and check available flights easily		

Title: Login Page	Priority : high	Size: 4
As a user I want to have different logins for admin and user So that I can login separately		

Title: Dashboard	Priority : high	Size: 5
As a user I want to have different dashboards for user and admin So that I can view separately		

Title: Signup Form	Priority : low	Size: 5
As a user I want to display a registration form So that I can register		

Title: Admin	Priority : high	Size: 2
As a Admin user I want to display total flight details, places and airlines So that I can add/delete/view flight, places and airlines details		

Title: Admin change password	Priority : low	Size: 6
As a Admin user I want to change password So that I can reset the password		

Title: Booking History	Priority : low	Size: 2
As a user I want to display booking history So that I can know my previous bookings		

Title: User Details Form	Priority : low	Size: 6
As a user I want to display details separately So that I can save my time		

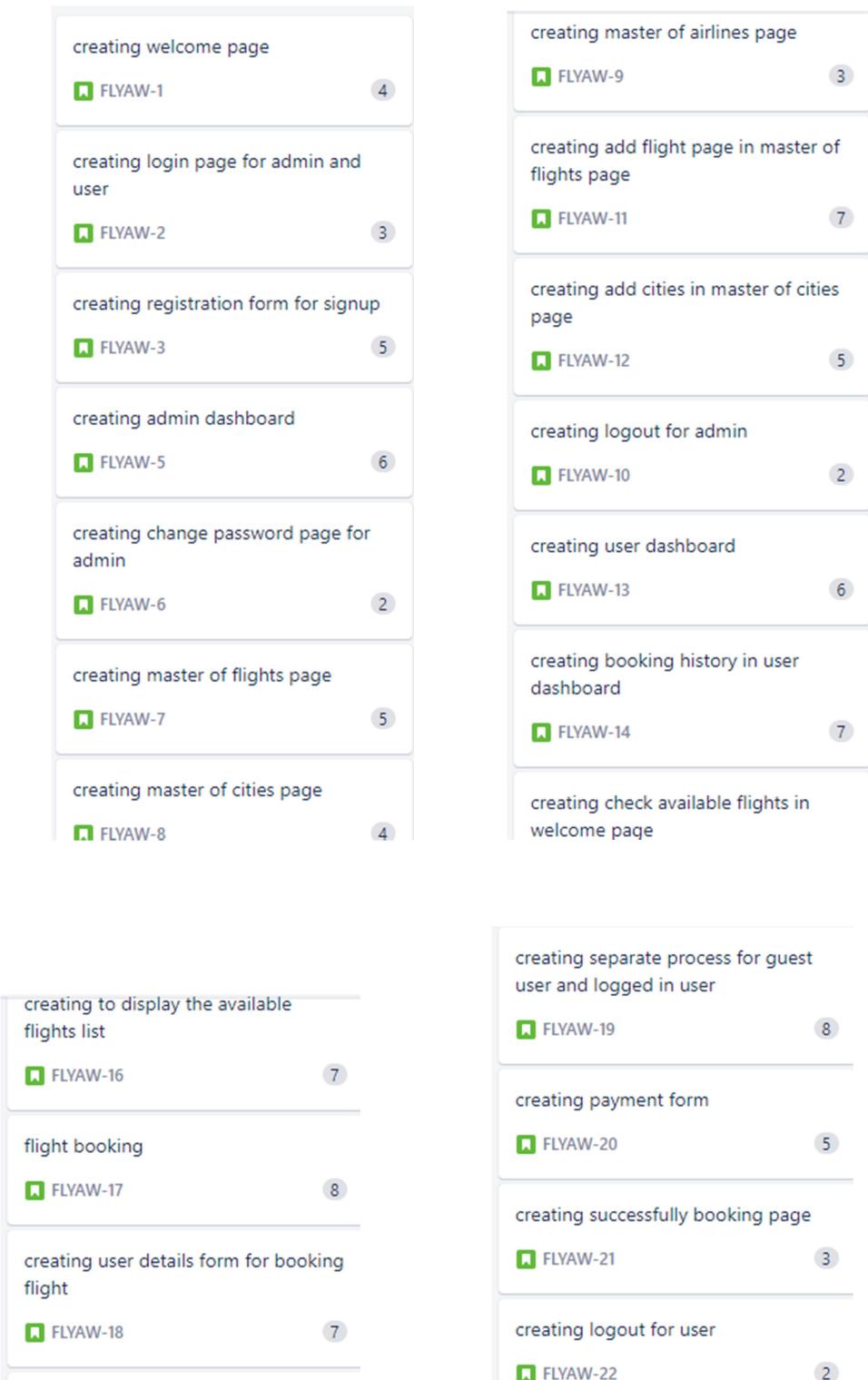
Title: Guest User Details Form	Priority : low	Size: 2
As a guest user I want to display unfilled form So that I can fill the form		

Title: Booking and Payment Form	Priority : high	Size: 6
As a guest user I want to display traveller and payment form So that I can fill my details		

Title: Success page	Priority : high	Size: 2
As a user I want to display success page So that I can see the flight is successfully booked with details		

Title: Logout	Priority : high	Size: 6
As a user I want to display logout button So that I can logout from my account		

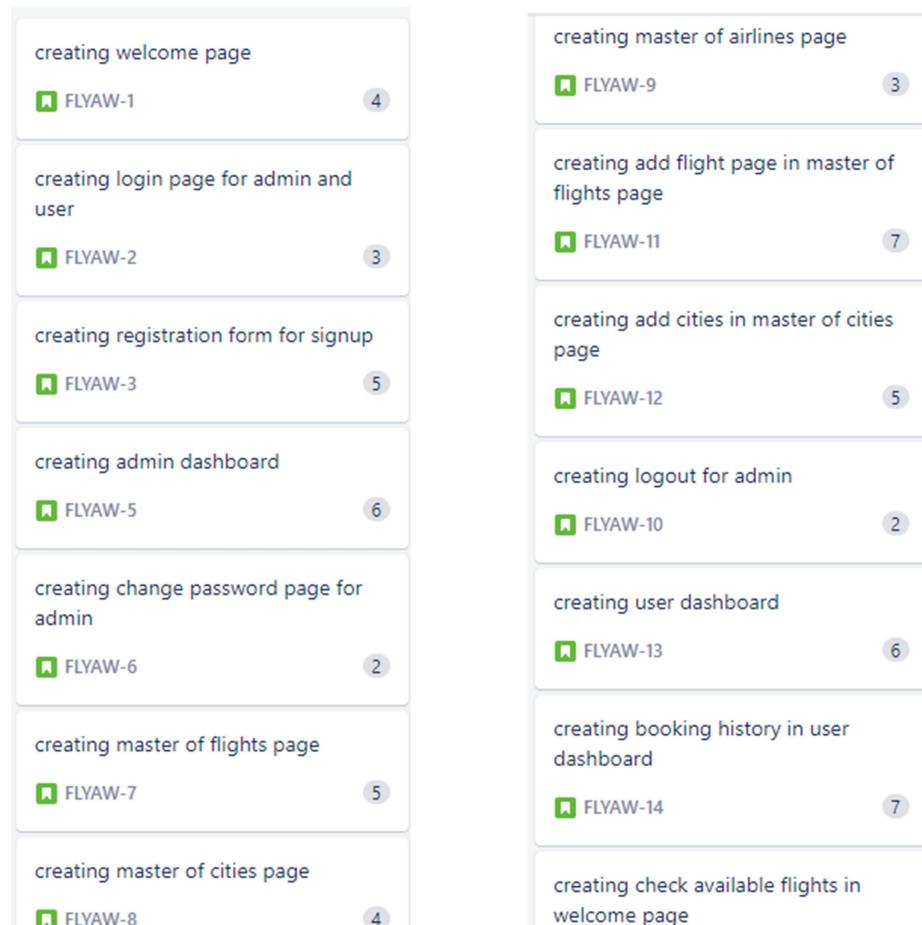
Step-4: selected the user stories and divided it into 21 tasks



Step-5: created two sprints of each 1 week duration and allocated the tasks to sprint1

Step-6: sprint1 started

In sprint1 we have 14 tasks



At the end of sprint, I had reviewed the sprint, I had completed 12 tasks and also tested and 13th and 14th tasks was in progress

So added 13th and 14th tasks to the sprint2

TO DO	IN PROGRESS 2	DONE 12 ✓
	creating booking history in user dashboard FLYAW-14 7	creating welcome page FLYAW-1 4
	creating check available flights in welcome page FLYAW-15 6	creating login page for admin and user FLYAW-2 3
		creating registration form for signup FLYAW-3 5
		creating admin dashboard FLYAW-5 6
		creating master of airlines page FLYAW-9 3
		creating add flight page in master of flights page FLYAW-11 7
		creating add cities in master of cities page FLYAW-12 5
		creating logout for admin FLYAW-10 2
		creating user dashboard FLYAW-13 6
		creating master of airlines page FLYAW-9 3
		creating add flight page in master of flights page FLYAW-11 7
		creating add cities in master of cities page FLYAW-12 5
		creating logout for admin FLYAW-10 2
		creating user dashboard FLYAW-13 6

Step-7: sprint2 started

In sprint2 we have 7 tasks and 2 tasks from sprint1 that is total 9 tasks.

TO DO 7	IN PROGRESS 2	DONE ✓
creating to display the available flights list FLYAW-16 7	creating booking history in user dashboard FLYAW-14 7	
flight booking FLYAW-17 8	creating check available flights in welcome page FLYAW-15 6	
creating user details form for booking flight FLYAW-18 7		
creating separate process for guest user and logged in user FLYAW-19 8		
creating payment form FLYAW-20 5		
creating successfully booking page FLYAW-21 3		
creating logout for user FLYAW-22 2		

At the end of the sprint, I had reviewed the sprint; I completed all the 21 tasks successfully and tested.

Step-8: the project is completed and tested and finally released

SPRINTS PLANNED: 2

TASKS ACHIEVED: Created JSP pages for

- 1) Welcome page which displays flight search form
- 2) Login page for admin and user
- 3) Dashboard page for admin and user
- 4) Signup form for user registration
- 5) Admin page and user page
- 6) Admin change password
- 7) Booking history of user
- 8) User details form
- 9) Guest user
- 10) Booking and payment page for book and payment
- 11) Success page for successfully
- 12) Logout page

GITHUB LINK:

<https://github.com/saikrishna6489/simplephase2.git>

CORE CONCEPTS USED:

SERVLETS

HIBERNATE

INHERITENCE

JSP

JSTL TAGS

ENCAPSULATION

EXCEPTION HANDLING

COLLECTIONS