

Airline Seat Selection, Boarding pass issuance and Aircraft boarding

Project Report

Submitted By

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*is a partial fulfilment of the requirements for the Course – 19CSE314
(Software Engineering)*

BACHELOR OF TECHNOLOGY IN COMPUTER SCIENCE AND ENGINEERING



DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
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MAY 2022

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BONAFIDE CERTIFICATE

This is to certify that the report entitled “Airline seat selection, Boarding pass issuance and aircraft boarding” submitted by

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is partial fulfilment of the requirements for the award of grade in course –
19CSE314 (Software Engineering) is a bonafide record of the work carried out at
Amrita School of Engineering, Coimbatore.

Evaluated on: 17-05-2022

Course Faculty

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Table of Contents

S.NO	TOPIC	PAGE NO
1	Preview of the project	
	Abstract	5
	Need & Motivation	5
	Tools and Technologies used	6
2	Software Requirements Specifications	
	Functional and Non-Functional Requirements	6
	User stories and Tasks flow diagram	7
	Weekly Plan for Sprint 1	7
	Weekly Plan for Sprint 2	7
	Boundaries and Constraints	8
3	Product Backlog	
	Report of Product Backlog from JIRA	8
	EPIC 1:	8
	EPIC 2:	9
	EPIC 3:	9
	EPIC 4:	10
	EPIC 5:	10
4	Diagrams	
	DFD	10
	Flowchart	12
	Use Case Diagram	13
	Sequence Diagram	14

5	Scrum Activities	
	Sprint 1 backlog	15
	Sprint 1 stand-up notes	16
	Sprint 1 retrospective notes	18
	Burndown Charts based on Story Points for Sprint 1	18
	Sprint 2 backlog	19
	Sprint 2 stand up notes	20
	Burndown Charts based on Story Points for Sprint 2	24
6	Implementation	24
7	Sample Code	25
8	Software Engineering Tools Used	
	Static Code testing	33
	Unit Testing	36
	UI testing	39
9	Screenshots of project	40
10	Conclusion	45

1. PREVIEW OF THE PROJECT

1.1 ABSTRACT:

The objective of the project is to design an Airline Reservation System application that enables the passenger to search for and book flight tickets which includes boarding pass issuance, and seat allocation. A reliable and predictable management system with respective operations is essential for aircraft trajectories. The airport management system is an all-in-one application for the complete flight experience, from booking a ticket to seat allocation. The application enables the users to get details regarding the timings of their flight, the boarding date, etc. This software has two parts. The first is the user part and the administrator part. The user part is used as the front end and the administrator is the back end. The administrator is used by the airline authority. It will allow the customers to access the database and allow new customers to sign up for online access. 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 particular departure and arrival dates. The system displays all the flight’s details such as flight no, name, price and duration of the journey, etc. After searching the system display list of available flights and allows the customer to choose a particular flight. Then the system checks for the availability of seats on the flight. If the seats are available then the system allows the passenger to book a seat. Otherwise, it asks the user to choose another flight. To book a flight the system asks the customer to enter his details such as name, address, city, state, credit card number, and contact number. Then it checks the validity of the card and books the flight and updates the airline database and user database. The system also allows the customer to cancel his/her reservation if any problem occurs. The primary purpose of this software is to reduce the manual errors involved in the airline reservation process and make it convenient for the customers to book the flights when they require such that they can utilize this software to make reservations, modify reservations or cancel a particular reservation.

1.2 Need & Motivation

For this problem statement we have divided our approach into two parts:

- How do the airlines decide their operating space (spatial constraint)
- Evaluate the temporal constraints

The temporal constraint determines:

- Whether the passenger who joins the queue is able to catch his flight or not.
- Whether the airline is able to process the passenger within the given time frame so that he is able to catch the flight.

1.3 Tools and Technologies used:

- Visual Studio Code
- HTML, CSS, JS
- PHP
- JIRA
- SonarQube : Static code testing
- TestProject : UI Testing

2. Software Requirements Specifications

2.1 Functional And Non-Functional Requirements

Functional Requirements	Non-Functional Requirements
The Software should allow the Users and admin to log in.	Time for the seat allocation(calculation)
Only the Admin can allocate the seats	The processing of each request should be done within 10 seconds
Only the Admin will be able to view the seats and data kept confidential	Space and time complexity of overall code is minimized
Admin will be able to change allocation according to User convenience	Security Issues
Notifications should be sent to users/admin about the updates	The site is responsive in nature.

2.2 User stories and Tasks flow diagram

- User stories
<https://ravellaabhinav860906.invisionapp.com/freehand/EAirlineSeatSelectionGroup6449453454459460-W8drsWgyR>
- Tasks Flow diagram
<https://ravellaabhinav860906.invisionapp.com/freehand/EAirlineSeatSelectionGroup6449453454459460-W8drsWgyR>

2.3 Weekly Plan For Sprint 1:

Week	Plan of Action
1	Database Creation
2	Login screen UI creation and log in by establishing a connection between app and database
3	Feedbacks, Security issues
4	Adding new user by admin
5	Flight search by User and updating it in database

2.4 Weekly Plan For Sprint 2:

Week	Plan of Action
1	Modification of sprint 1 errors
2	Addition, deletion, updating of data by admin
3	Booking seats and generating tickets
4	static code analysis using sonarqube and Jira updates
5	continuous integration and deployment using Jenkins, dockers and firebase

2.4 Boundaries and Constraints:

- Once the slots are allocated by admin, the users can change their slots.
- While allocating the details, the user id and seat number should already be present in the database.
- While booking, the arrival and destination details should already be present in the database.
- While registering new user, the new user id shouldn't be an already existing one

3. Product Backlog

3.1 Report of product backlog from JIRA for sprint 1

The screenshot displays the Jira Software interface for a project named 'CSSBPIAAB board'. The main view is the 'Backlog' for 'CSSBPIAAB Sprint 2', which is currently 'ACTIVE' and contains 17 issues. The issues are listed in a table-like format with columns for issue ID, description, and assigned actions. The issues are as follows:

Issue ID	Description	Assigned Action	Count
CSSBPIAAB-22	User needs to know the quality of the food and for every item rating given by the users.	Select and order	4
CSSBPIAAB-25	As premium member, I would like to have additional benefits	Seat Selection	5
CSSBPIAAB-45	As a user I want to update my details, after login.	User account registr...	1
CSSBPIAAB-9	As an administrator I have to verify all the entered details and send the user an activation email.	User account registr...	2
CSSBPIAAB-40	As a passenger, I would like to have add-ons for check-in	Boarding pass issuan...	4
CSSBPIAAB-5	As a user, I need to see how this food ordering website is useful for passengers inside the plane.	Select and order	6
CSSBPIAAB-42	As a user, I need a print out of boarding pass	Boarding pass issuan...	5
CSSBPIAAB-23	As a user, I want to have a subtle and easy way online payment after seat selection so that my transaction will happen without hassles	Seat Selection	5
CSSBPIAAB-11	As a User, I would like to view the various foods provided in the flight, so that I can order them accordingly.	Select and order	4
CSSBPIAAB-16	User needs to find what are all types of people, this food ordering web took into consideration.	Select and order	6
CSSBPIAAB-64	Flights are getting booked for previous dates as well		
CSSBPIAAB-32	As a user, I would like to get brief description about services and view the pricing.	Ancillary Booking	5

3.2 Report of product backlog from JIRA for sprint 2

Jira Software | Dashboards | Projects | Issues | Boards | Create | Search

CSSBPIAA board | Board | ↗

Backlog | QUICK FILTERS: Only My Issues | Recently Updated

▼ CSSBPIAA Sprint 2 | 17 issues | ACTIVE | 37 | 2 | 29 | ...

07/May/22 11:51 AM • 18/May/22 9:00 PM

Issue ID	Description	Status Label	Priority
CSSBPIAA-22	User needs to know the quality of the food and for every item rating given by the users.	Select and order	4
CSSBPIAA-25	As premium member, I would like to have additional benefits	Seat Selection	5
CSSBPIAA-45	As a user I want to update my details, after login.	User account registr...	1
CSSBPIAA-9	As an administrator I have to verify all the entered details and send the user an activation email.	User account registr...	2
CSSBPIAA-40	As a passenger, I would like to have add-ons for check-in	Boarding pass issuan...	4
CSSBPIAA-5	As a user, I need to see how this food ordering website is useful for passengers inside the plane.	Select and order	6
CSSBPIAA-42	As a user, I need a print out of boarding pass	Boarding pass issuan...	5
CSSBPIAA-23	As a user, I want to have a subtle and easy way online payment after seat selection so that my transaction will happen without hassles	Seat Selection	5
CSSBPIAA-11	As a User, I would like to view the various foods provided in the flight. so that I can order them accordingly.	Select and order	4
CSSBPIAA-16	User needs to find what are all types of people, this food ordering web took into consideration.	Select and order	6
CSSBPIAA-84	Flights are getting booked for previous dates as well		
CSSBPIAA-32	As a user, I would like to get brief description about services and view the pricing.	Ancillary Booking	5

Jira Software | Dashboards | Projects | Issues | Boards | Create | Search

CSSBPIAA board | Board | ↗

Backlog | QUICK FILTERS: Only My Issues | Recently Updated

▼ CSSBPIAA Sprint 2 | 17 issues | ACTIVE | 37 | 2 | 29 | ...

07/May/22 11:51 AM • 18/May/22 9:00 PM

Issue ID	Description	Status Label	Priority
CSSBPIAA-32	As a user, I would like to get brief description about services and view the pricing.	Ancillary Booking	5
CSSBPIAA-33	As a user, I would like filter ancillary services to a selected group code (type).	Ancillary Booking	4
CSSBPIAA-35	As a user/flyer, I would like to enter additional remarks for required ancillary services.	Ancillary Booking	5
CSSBPIAA-44	As a passenger, I want to De-Check-in if I decide not to travel	Boarding pass issuan...	1
CSSBPIAA-19	User need to know how the payment process is done for the food ordering.	Select and order	6
CSSBPIAA-36	As a user, I would like to view/modify my ancillary booking.	Ancillary Booking	5

Backlog 0 issues | Create Sprint

There are currently no issues in the backlog

+ Create issue

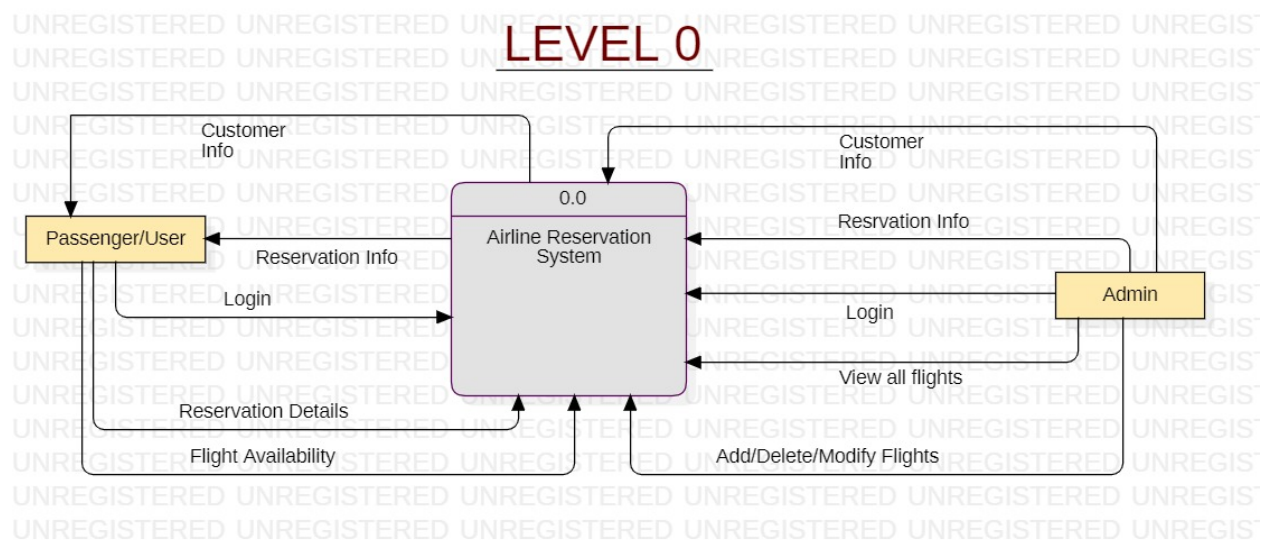
3.2 Stories from each epic for sprint1

3.2.1 EPIC Stories:

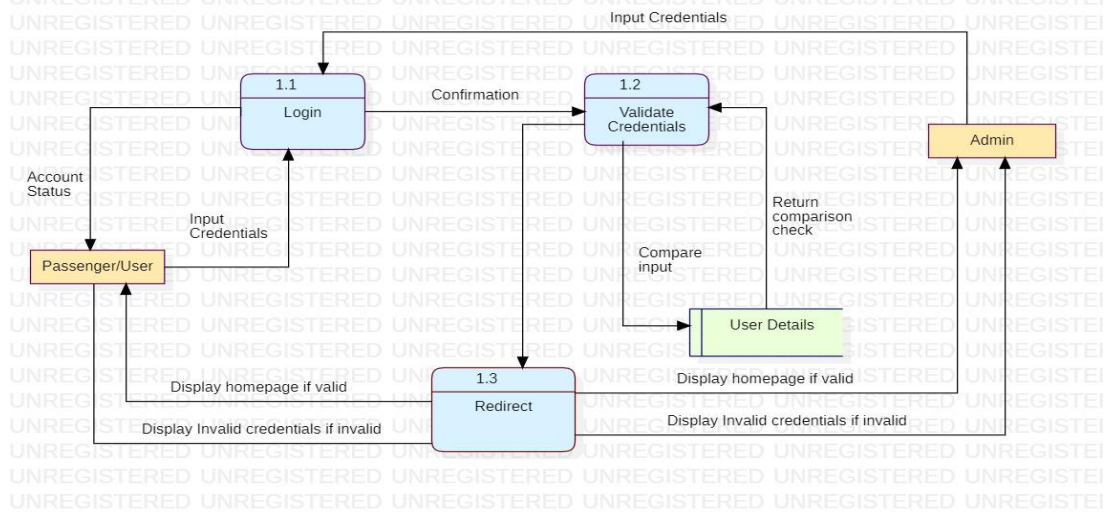
Key	Summary	Issue Type	Priority	Status	Story Points (67 → 61)
CSSBPIAAB-3	As a user, I want to view flights available for journey on respective date so that I can select accordingly.	Story	High	DONE	7 → 5
CSSBPIAAB-7	As a user, I would like to register myself when try to login for the first time.	Story	High	DONE	6 → 5
CSSBPIAAB-8	As a User, I would like to view the flights in order of lowest to highest fares, so that i can choose my flight accordingly.	Story	Medium	DONE	5 → 4
CSSBPIAAB-10	As a passenger, I would like to select respective class and seat alignment	Story	Medium	DONE	1 → 3
CSSBPIAAB-12	As a User, I would like to filter my search results on the basis of Airlines, Departure time and No. of stops, so that I can narrow down my options to pick the best one.	Story	Medium	DONE	6 → 3
CSSBPIAAB-13	As a user ,I would like have a search history so that I can view my previous bookings	Story	High	DONE	5
CSSBPIAAB-14	As a user, I would like to login into the account.	Story	Medium	DONE	4
CSSBPIAAB-15	As a user, i would like to wishlist option so that i can add my bookings to cart	Story	High	DONE	6 → 5
CSSBPIAAB-17	As a User, I would like to filter out to view Multi-city flights.	Story	Medium	DONE	5 → 2
CSSBPIAAB-18	As a User, I would like to filter out to view all non-stop flights only.	Story	Medium	DONE	5 → 4
CSSBPIAAB-24	As a Stakeholder, we would like to collect passenger details of users booking through "Guest Mode" so that we can establish contact with them in the future	Story	Medium	DONE	2
CSSBPIAAB-30	As a user,If any of my credentials are entered wrong then it should be shown as login failed	Story	Medium	DONE	4
CSSBPIAAB-31	As a user, I would like to add additional services for my journey	Story	High	DONE	5
CSSBPIAAB-37	As an Admin I want to have access to all the data from the database,So that I can add the data accordingly.	Story	Medium	DONE	4
CSSBPIAAB-37	As an Admin I want to have access to all the data from the database,So that I can add the data accordingly.	Story	Medium	DONE	4
CSSBPIAAB-41	As an Admin I want to update and delete the flight details and passenger details.	Story	Medium	DONE	1 → 4
CSSBPIAAB-43	As a user if i want to logout then there should be an option.	Story	Low	DONE	1 → 2

4. Diagrams

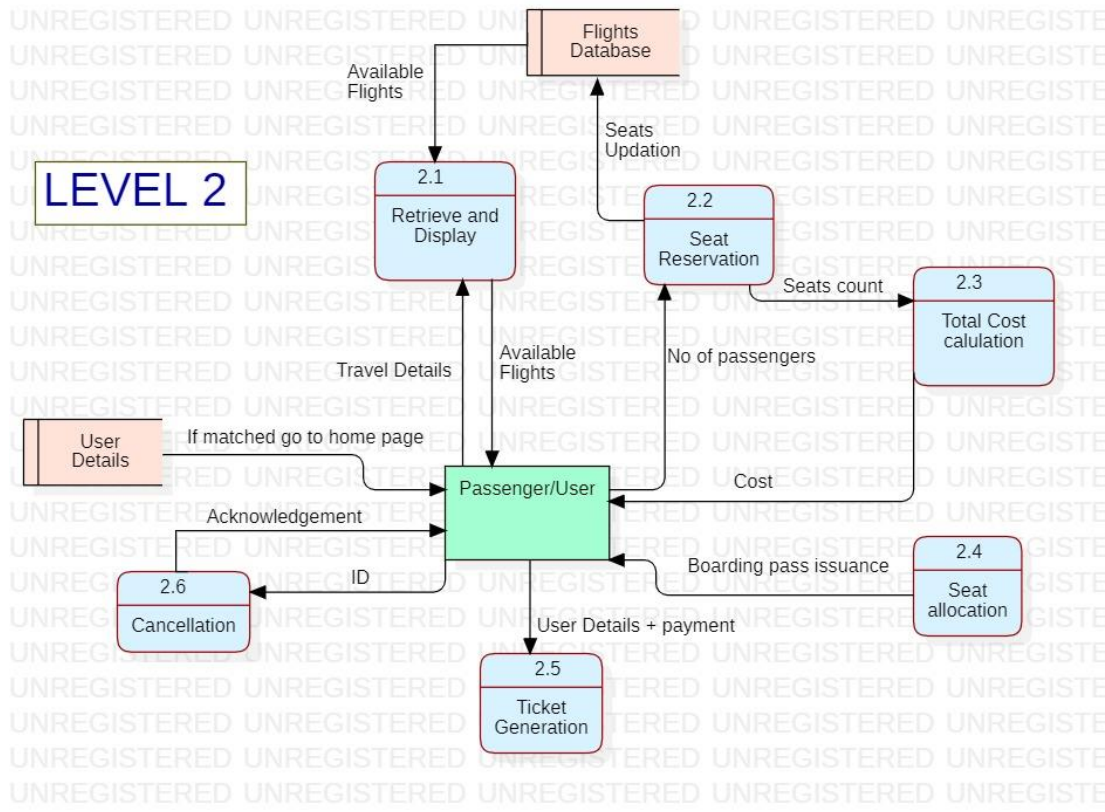
4.1 Data Flow Diagram



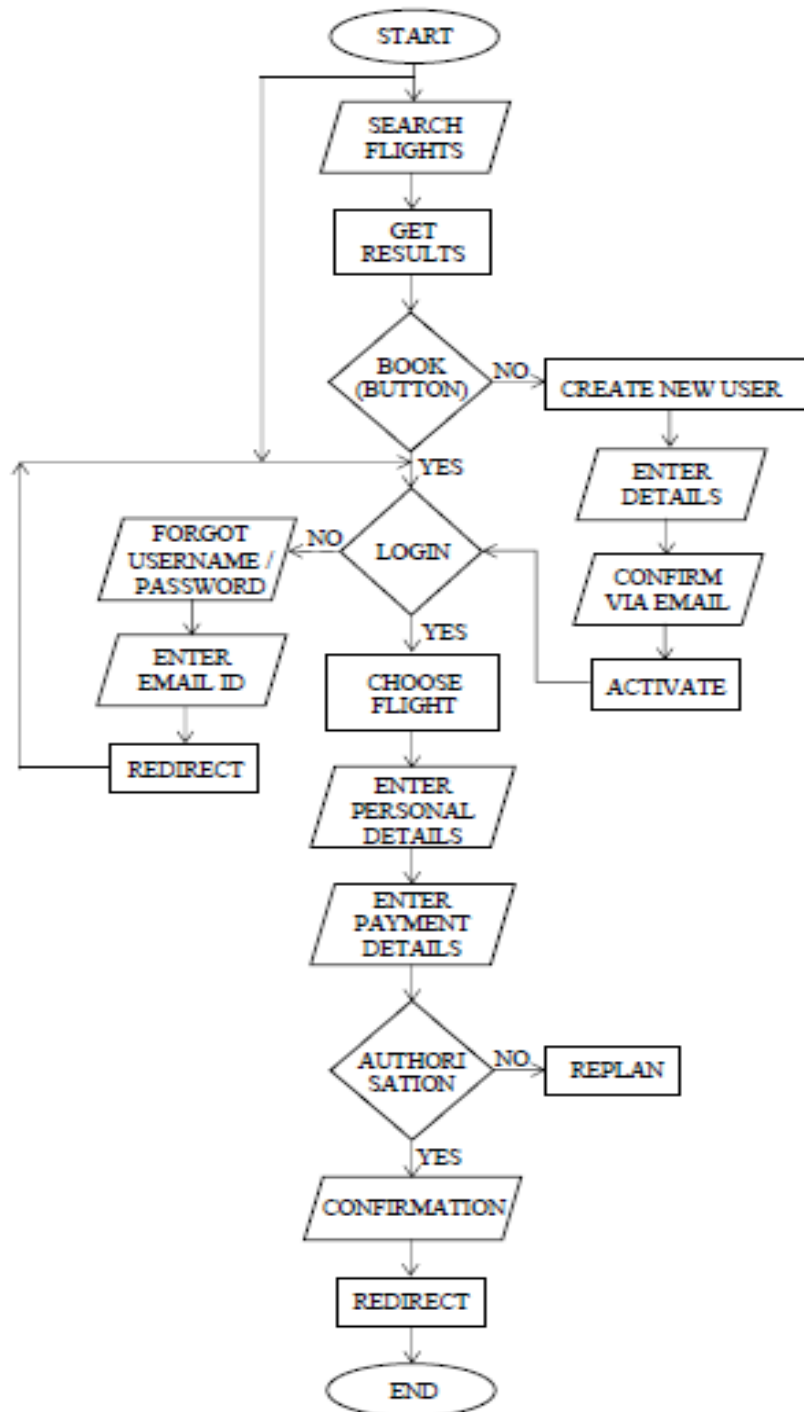
LEVEL 1



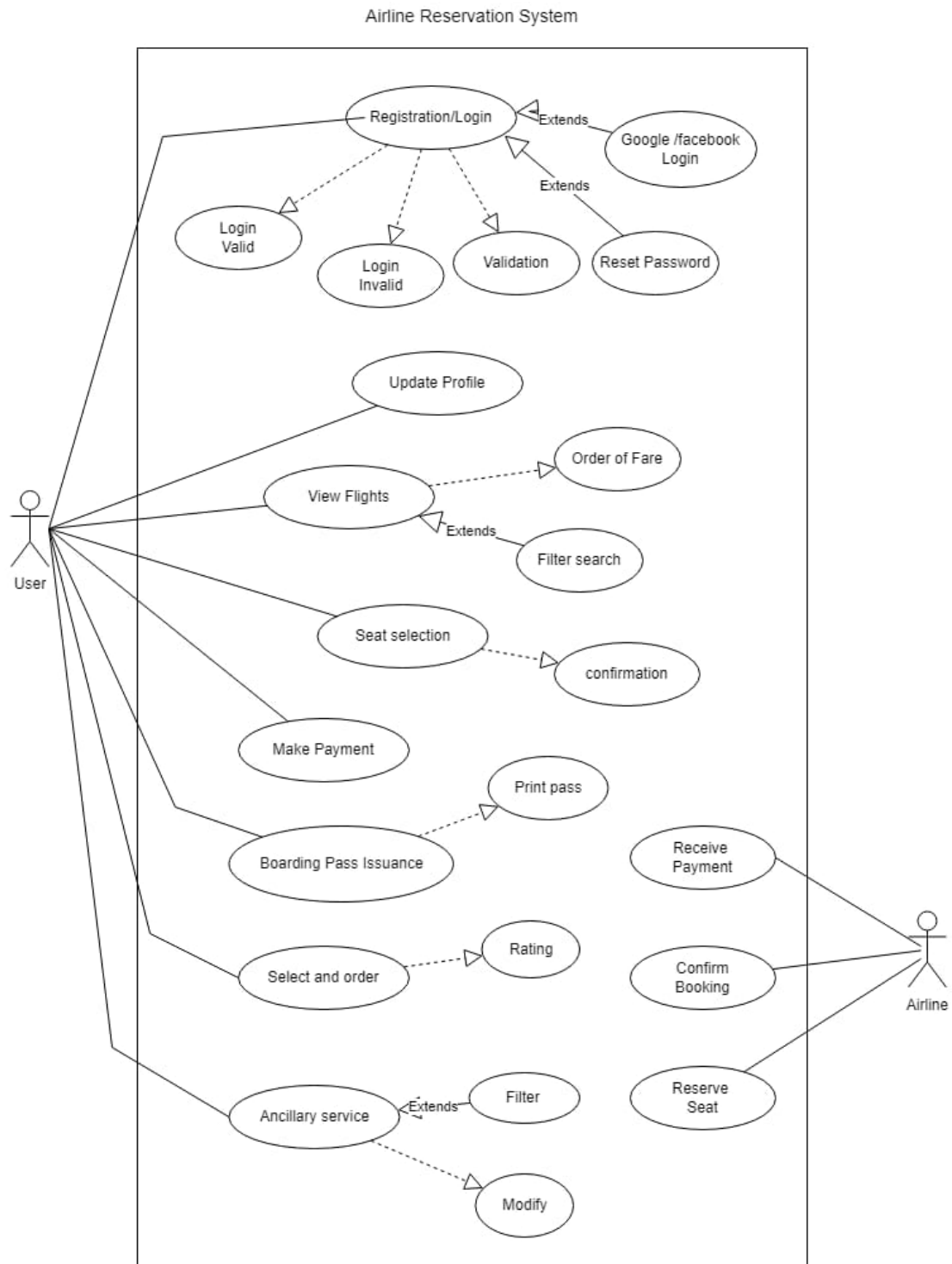
LEVEL 2



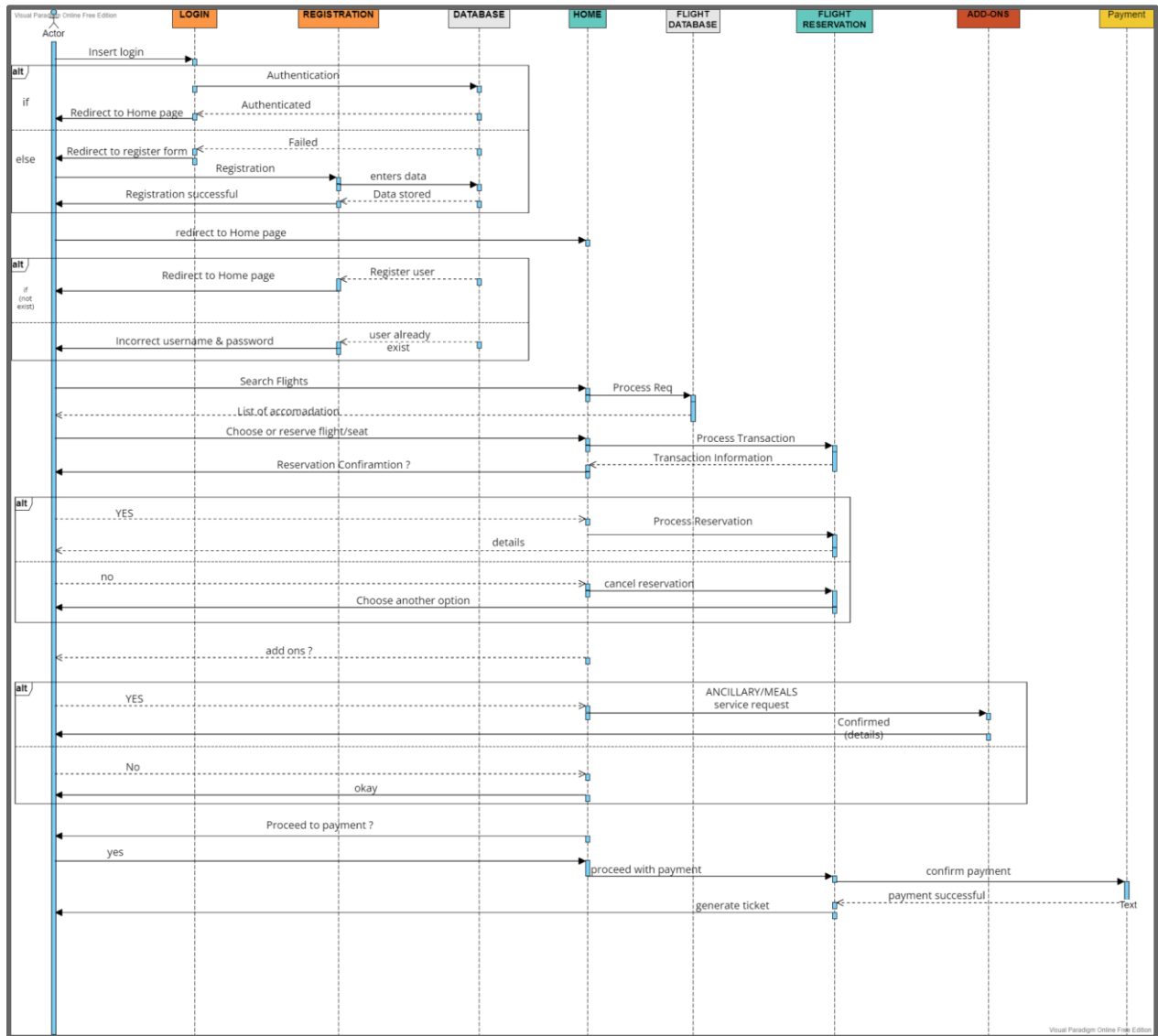
FlowChart:



4.2 Use Case Diagram



4.3 Sequence diagram



5. Scrum activities

5.1 Sprint 1 backlog sample:

Amrita Vishwa Vidyapeetham - Jira Server

JQL Query: issueKey in (CSSBPIAAB-3,CSSBPIAAB-7,CSSBPIAAB-8,CSSBPIAAB-10,CSSBPIAAB-12,CSSBPIAAB-13,CSSBPIAAB-37,CSSBPIAAB-41,CSSBPIAAB-43)

Sorted by: Key descending

1-16 of 16 as at: 16/May/22 4:58 PM

Key	Status	Created	Updated
CSSBPIAAB-43	DONE	17/Feb/22	25/Mar/22
CSSBPIAAB-41	DONE	17/Feb/22	25/Mar/22
CSSBPIAAB-37	DONE	17/Feb/22	25/Mar/22
CSSBPIAAB-31	DONE	17/Feb/22	25/Mar/22
CSSBPIAAB-30	DONE	17/Feb/22	25/Mar/22
CSSBPIAAB-24	DONE	17/Feb/22	25/Mar/22
CSSBPIAAB-18	DONE	17/Feb/22	25/Mar/22
CSSBPIAAB-17	DONE	17/Feb/22	25/Mar/22
CSSBPIAAB-15	DONE	17/Feb/22	25/Mar/22
CSSBPIAAB-14	DONE	17/Feb/22	25/Mar/22
CSSBPIAAB-13	DONE	17/Feb/22	25/Mar/22
CSSBPIAAB-12	DONE	17/Feb/22	25/Mar/22
CSSBPIAAB-10	DONE	17/Feb/22	25/Mar/22
CSSBPIAAB-8	DONE	17/Feb/22	25/Mar/22
CSSBPIAAB-7	DONE	17/Feb/22	25/Mar/22
CSSBPIAAB-3	DONE	17/Feb/22	25/Mar/22

5.2 Sprint 1 stand-up notes

STANDUP NOTES 1 on WEEK 1:

Name	Question	Answer
SHANTHAN	What did you do yesterday?	----
	What will you do today?	Discuss Epic ,User stories
	Are there any impediments in your way?	None
ABHINAV	What did you do yesterday?	----
	What will you do today?	Discuss Epic ,User stories
	Are there any impediments in your way?	None
LIKHITHA	What did you do yesterday?	----
	What will you do today?	Discuss Epic ,User stories
	Are there any impediments in your way?	None
KOUSHIK	What did you do yesterday?	----
	What will you do today?	Discuss Epic ,User stories
	Are there any impediments in your way?	None
ROHIT	What did you do yesterday?	----
	What will you do today?	Discuss Epic ,User stories

STANDUP NOTES 2 on WEEK 2

Name	Question	Answer
SHANTHAN	What did you do yesterday?	Improving on user stories
	What will you do today?	Installation and configuration of tools
	Are there any impediments in your way?	Few paths related errors
ABHINAV	What did you do yesterday?	Improving on user stories
	What will you do today?	Installation and configuration of tools
	Are there any impediments in your way?	Few paths related errors
LIKHITHA	What did you do yesterday?	Improving on user stories
	What will you do today?	Installation and configuration of tools
	Are there any impediments in your way?	Few paths related errors
KOUSHIK	What did you do yesterday?	Improving on user stories
	What will you do today?	Installation and configuration of tools
	Are there any impediments in your way?	Few paths related errors
ROHIT	What did you do yesterday?	Improving on user stories
	What will you do today?	Installation and configuration of tools

	Are there any impediments in your way?	Few paths related errors
--	--	--------------------------

STANDUP NOTES 3 on WEEK 3

Name	Question	Answer
SHANTHAN	What did you do yesterday?	Worked on register page
	What will you do today?	Improving the UI
	Are there any impediments in your way?	None
ABHINAV	What did you do yesterday?	Worked on Home Page
	What will you do today?	Implementing features for flight search
	Are there any impediments in your way?	Connection issues
LIKHITHA	What did you do yesterday?	Worked on search flights page
	What will you do today?	Improving on UI
	Are there any impediments in your way?	Issues with reset button
KOUSHIK	What did you do yesterday?	Worked on admin page
	What will you do today?	Improving on UI
	Are there any impediments in your way?	None
ROHIT	What did you do yesterday?	Installation and configuring complete.
	What will you do today?	Working on backend and PHP connections.

STANDUP NOTES 4 on WEEK 4

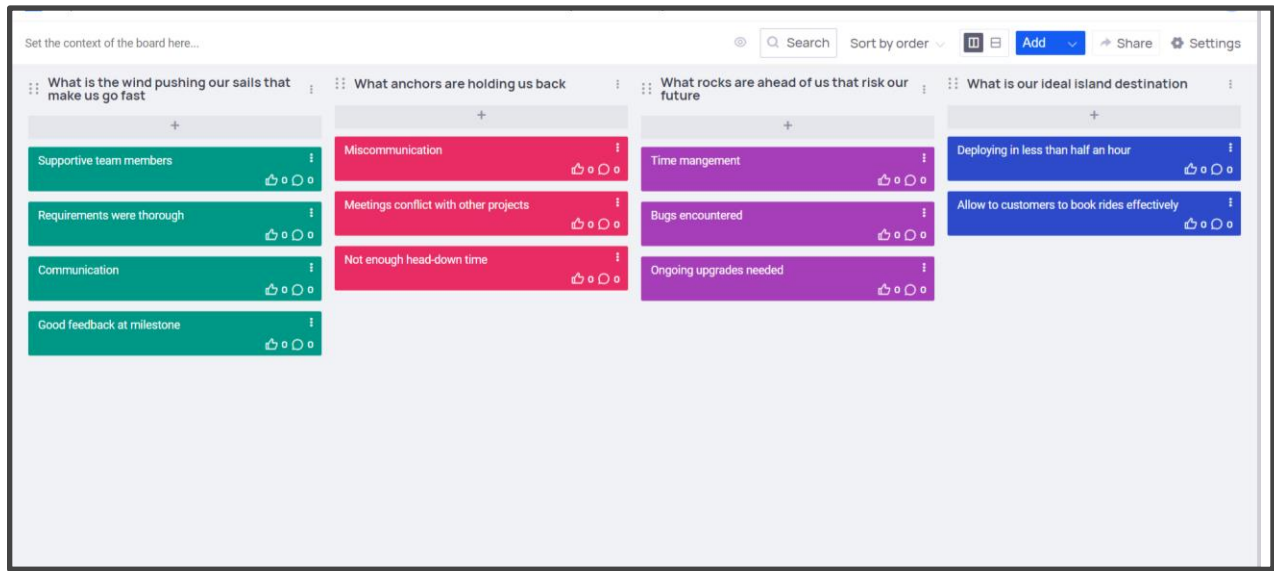
Name	Question	Answer
SHANTHAN	What did you do yesterday?	completed register page
	What will you do today?	Create login page
	Are there any impediments in your way?	None
ABHINAV	What did you do yesterday?	Worked on Home Page
	What will you do today?	Work on flights data
	Are there any impediments in your way?	None
LIKHITHA	What did you do yesterday?	Completed till Reset button
	What will you do today?	Create a page for search history
	Are there any impediments in your way?	None

KOUSHIK	What did you do yesterday?	Adding data to admin page is accomplished
	What will you do today?	Work on updating data on admin page
	Are there any impediments in your way?	None
ROHIT	What did you do yesterday?	Done with backend connections.
	What will you do today?	Given my SQL database connections
	Are there any impediments in your way?	None

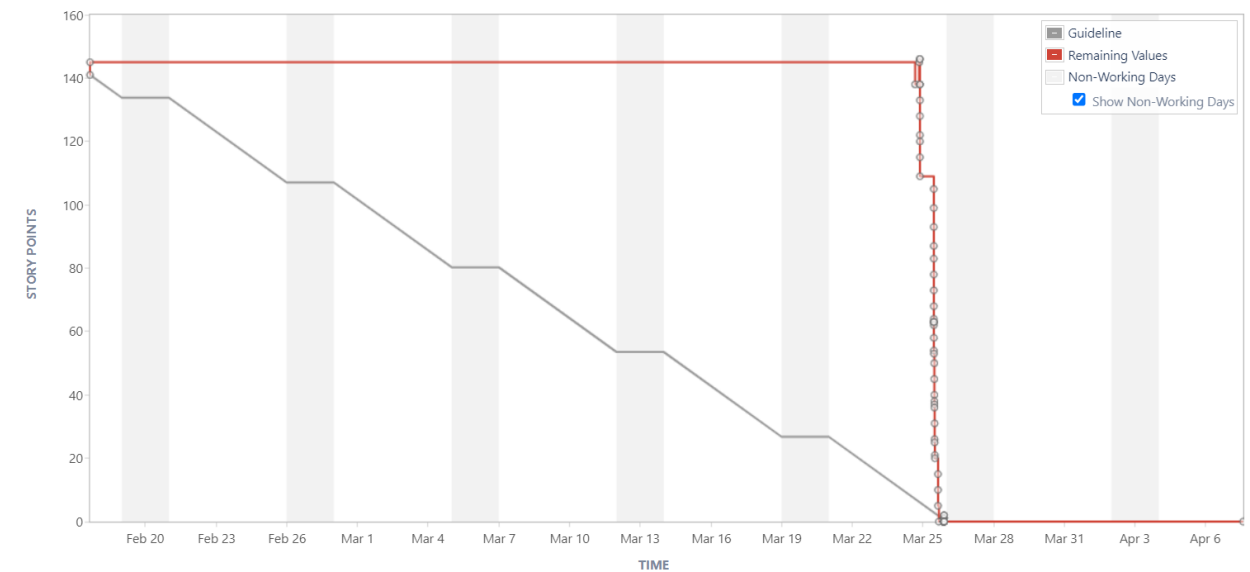
STANDUP NOTES 5 on WEEK 5

SHANTHAN	What did you do yesterday?	Register page and login page with validation completed
	What will you do today?	Need to fix few glitches
	Are there any impediments in your way?	None
ABHINAV	What did you do yesterday?	Home page and flight data to discover and filter is done
	What will you do today?	Need to rectify few issues
	Are there any impediments in your way?	CSS issues
LIKHITHA	What did you do yesterday?	Search history page completed
	What will you do today?	Need to verify issues with booking page
	Are there any impediments in your way?	None
KOUSHIK	What did you do yesterday?	Add, update data on admin page is completed
	What will you do today?	Delete is not working properly, need to work on it
	Are there any impediments in your way?	Data is not cleared from the backend
ROHIT	What did you do yesterday?	Done with My SQL connections.
	What will you do today?	Worked on Ancillary booking

5.3 Sprint 1 retrospective notes:



5.4 Burndown Charts based on Story Points for Sprint 1:



5.5 Sprint 2 standup notes

Week 1

Name	Question	Answer
P.Koushik	1. What did you do yesterday? 2. What will you do today? 3. Are there any impediments in your way	1. Discussed about sprint retrospective notes 2. Assisted in finishing up the web application 3. None
R.Abhinav	1. What did you do yesterday? 2. What will you do today? 3. Are there any impediments in your way	1. Discussed about sprint retrospective notes 2. Assisted in developing Backend APIs 3. None
Rohit P M	1. What did you do yesterday? 2. What will you do today? 3. Are there any impediments in your way	1. Discussed about sprint retrospective notes 2. Assisted in finishing up the web application 3. None
S.Shanthan Reddy	1. What did you do yesterday? 2. What will you do today? 3. Are there any impediments in your way	1. Discussed about sprint retrospective notes 2. Worked on web application 3. None
S.Likhitha	1. What did you do yesterday? 2. What will you do today? 3. Are there any impediments in your way	1. Discussed about sprint retrospective notes 2. Developing Backend APIs and Endpoints 3. None

Week 2

Name	Question	Answer
P.Koushik	1. What did you do yesterday? 2. What will you do today? 3. Are there any impediments in your way	1. Assisted in finishing up the web application 2. Assisted with web application styling 3. Padding issues and margin issues
R.Abhinav	1. What did you do yesterday? 2. What will you do today? 3. Are there any impediments in your way	1. Assisted in developing Backend APIs 2. Installation and configuration of testing tools 3. Installation hurdles
Rohit PM	1. What did you do yesterday? 2. What will you do today? 3. Are there any impediments in your way	1. Assisted in finishing up the mobile application 2. Assisted in styling mobile application pages 3. Navigation errors or linking errors
S.Shanthan Reddy	1. What did you do yesterday? 2. What will you do today? 3. Are there any impediments in your way	1. Assisted in finishing up the mobile application 2. Assisted in styling mobile application pages 3. Navigation errors or linking errors
S.Likhitha	1. What did you do yesterday? 2. What will you do today? 3. Are there any impediments in your way	1. Worked on Web application 2. Developed remaining web application 3. Few datastore errors

Week 3

Name	Question	Answer
P.Koushik	1. What did you do yesterday? 2. What will you do today? 3. Are there any impediments in your way	1. Assisted with web application styling 2. I will be making minor tweaks in web application 3. Padding issues and margin issues
R.Abhinav	1. What did you do yesterday? 2. What will you do today? 3. Are there any impediments in your way	1. Assisted with backend and frontend integration 2. I will be working on the unit testing with some test cases 3. Hard time in deciding upon the test cases
Rohit PM	1. What did you do yesterday? 2. What will you do today? 3. Are there any impediments in your way	1. Assisted in developing mobile application pages 2. Adding remaining content to mobile page 3. Navigation errors or linking errors
S.Shanthan Reddy	1. What did you do yesterday? 2. What will you do today? 3. Are there any impediments in your way	1. Developed remaining mobile application pages 2. Navigating through mobile applications pages for linking pages, styling issues and missing content 3. Navigation errors or linking errors
S.Likhitha	1. What did you do yesterday? 2. What will you do today? 3. Are there any impediments in your way	1. Finished backend and frontend integration 2. I will be working on backend validation and optimization 3. Loss of data/persistency

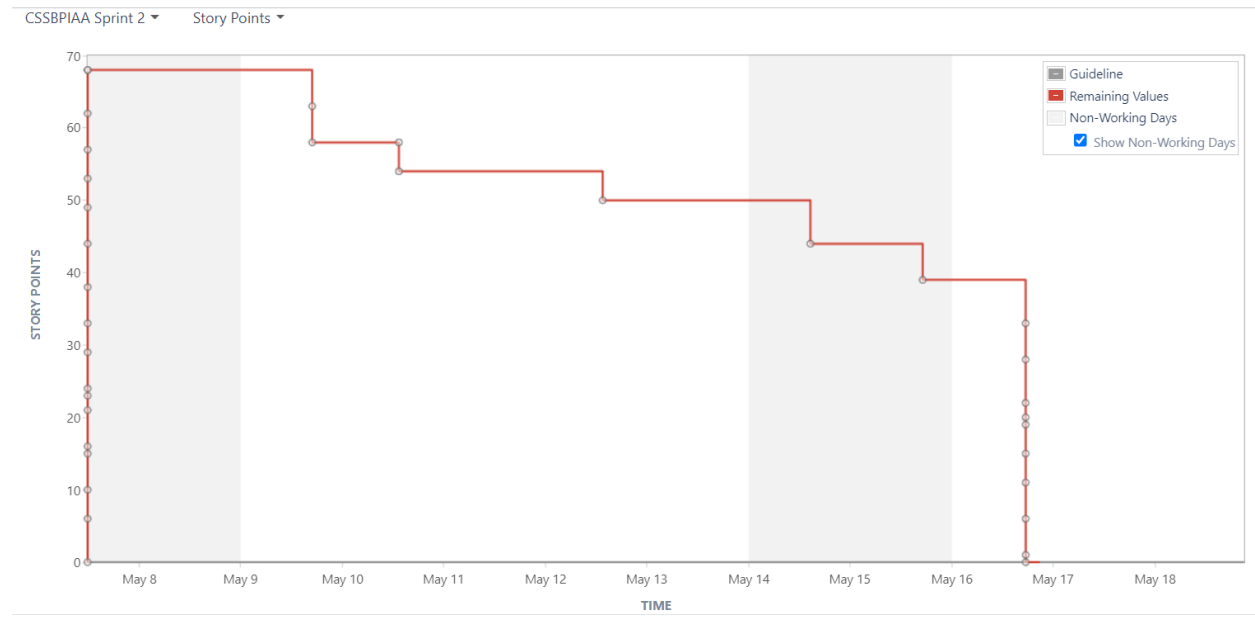
Week 4

Name	Question	Answer
P.Koushik	1. What did you do yesterday? 2. What will you do today? 3. Are there any impediments in your way	1. Assisted in improving UI/UX of the web application 2. Working as team for continuous integration 3. Missing packages and hosting issues
R.Abhinav	1. What did you do yesterday? 2. What will you do today? 3. Are there any impediments in your way	1. Reported errors occurred during unit testing 2. I will be working on unit testing 3. Designing various test cases for UI
Rohit PM	1. What did you do yesterday? 2. What will you do today? 3. Are there any impediments in your way	1. Worked on errors reported during unit testing 2. I will be working parallely with UI testing 3. Responsiveness and scaling of mobile app
S.Shanthan Reddy	1. What did you do yesterday? 2. What will you do today? 3. Are there any impediments in your way	1. Fixing errors reported after unit testing related to backend 2. Working as team for continuous integration 3. Missing packages and hosting issues
S.Likhitha	1. What did you do yesterday? 2. What will you do today? 3. Are there any impediments in your way	1. Worked on errors reported during unit testing 2. I will be working parallely with UI testing 3. Grid issues, card alignment and container overflow

5.6 Sprint 2 retrospective notes:

To be completed after sprint.

5.7 Burndown chart for sprint2



6. Implementation:

Tools:

1. **PhpStorm** – Editor
2. **XAMPP** – Web Server
3. **Phpmyadmin** - MySQL Database Management
4. **SonarQube** - Static Code Analysis
5. **TestProject** - Web testing

Languages Used:

1. HTML/CSS/JS
2. PHP
3. SQL

Project Link: <https://github.com/ravellaabhinav/SWE---Project>

7. Sample Code:

Homepage:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <title>TRAWELL</title>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1">
    <link rel="shortcut icon" type="image/x-icon"
href="https://lh3.googleusercontent.com/-
HtZivmahJYI/VUZKoVuFx3I/AAAAAAAAAcM/thmMtUUPjbA/Blue_square_A-3.PNG" />
    <link rel="stylesheet"
href="http://maxcdn.bootstrapcdn.com/bootstrap/3.3.5/css/bootstrap.min.css">
    <script
src="https://ajax.googleapis.com/ajax/libs/jquery/1.11.1/jquery.min.js"></scr
ipt>
    <script
src="http://maxcdn.bootstrapcdn.com/bootstrap/3.3.5/js/bootstrap.min.js"></sc
ript>
    <link rel="stylesheet" href="forcompany.css">
    <link rel="stylesheet" href="homepage.css">
    <link rel="stylesheet" href="AdminSignin.css">
    <script src="login.js"> </script>
    <script src="jump.js"> </script>
</head>
<body>
    <nav class="navbar navbar-default navbar-fixed-top">
        <div class="container">
            <div class="navbar-header">
                <button type="button" class="navbar-toggle"
data-toggle="collapse" data-target="#myNavbar">
                    <span class="icon-bar"></span>
                    <span class="icon-bar"></span>
                    <span class="icon-bar"></span>
                </button>
                <a class="navbar-brand"
href="homepage.html"><span class="glyphicon glyphicon-home"></span> Home</a>
            </div>
            <div class="collapse navbar-collapse" id="myNavbar">
                <ul class="nav navbar-nav navbar-right">
                    <li id = " "cart">
                        <a class="navbar-brand"
href="cartshow.php"><span class="glyphicon glyphicon-shopping-cart"></span>
Bookings</a>
                    </li>
                    <li class="dropdown" id = " "new">
```

```

toggle="dropdown" href="#"><span class="glyphicon glyphicon-user"> Sign
in&nbsp;</span><span class="caret"></span>
</a>
<ul class="dropdown-menu multi-
level" role="menu" aria-labelledby="dropdownMenu">
<li><a
href="signup.html">Register</a></li>

<li class="dropdown-submenu">
<a tabindex="-1"

<ul class="dropdown-

<li><a tabindex="-1"

<li><a
href="Adminpage.html">Admin</a></li>

<li><a
href="customersignin.html">Customer Sign in</a></li>

</ul>
</li>

</ul>
</li>
<li class="dropdown" id =<input type="text" value="old">
<a class="dropdown-toggle" data-
toggle="dropdown" href="#" ><span class="glyphicon glyphicon-user"
id="wuser">Welcome!</span>
<span class="caret"></span>
</a>
<ul class="dropdown-menu multi-
level" role="menu" aria-labelledby="dropdownMenu">

<li><a
href="showhistory.php">History</a></li>

<li><a href="#"
id="logout">Sign out</a></li>

</ul>
</li>

</ul>
</div>
</div>
</nav>
<div class="jumbotron text-center">
<h1>TRAWELL</h1>
<p>If you never go you will never know!</p>
</div>

<div class="container" id="homepage">
<h1><b>Search Flights</b></h1>
<br />

```

```

        <p><b>Choose your flight option</b></p>
        <div class="btn-group btn-group-justified">
            <div class="btn-group">
                <button id="button1" type="button" href="#oneway"
class="btn btn-primary">One-way</button>
            </div>
            <div class="btn-group">
                <button id="button2" type="button" href="#roundtrip"
class="btn btn-primary">Round-trip</button>
            </div>
            <div class="btn-group">
                <button id="button3" type="button" href="#all"
class="btn btn-primary">Search all flights</button>
            </div>
        </div>
        <hr />
        <div id="oneway">
            <form role="form" action="SearchResultOneway.php"
method="post">
                <div class="row">
                    <div class="col-sm-6">
                        <label for="from">From:</label>
                        <input type="text" class="form-control" id="from"
name="from" placeholder="City or Code" required>
                    </div>
                    <div class="col-sm-6">
                        <label for="to">To:</label>
                        <input type="text" class="form-control" id="to" name="to"
placeholder="City or Code" required>
                    </div>
                </div>
                <div class="row">
                    <div class="col-sm-6">
                        <label for="depart">Depart:</label>
                        <input type="date" class="form-control" min="2022-
05-17" id="depart" name="depart" required>
                    </div>
                </div>
                <div class="row">
                    <hr />
                    <div class="col-sm-6">
                        <label for="class">Class:</label>
                        <select class="form-control" name="class">
                            <option value="Economy">Economy</option>
                            <option value="Business">Business</option>
                        </select>
                    </div>
                </div>
                <br>
                <div class="row">
                    <div class="col-sm-6">
                        <label class="radio-inline">

```

```

        <input type="radio" name="stop" value="nonstop"
checked>Non-Stop
    </label>
    <label class="radio-inline">
        <input type="radio" name="stop" value="1stop">Multi-City
    </label>
</div>
</div>
<br>
<div class="btn-group btn-group-justified">
    <div class="btn-group">
        <button type="submit" class="btn btn-
success">Submit</button>
    </div>
    <div class="btn-group">
        <button type="reset" class="btn btn-
info" value="Reset">Reset</button>
    </div>
</div>
</form>
</div>

```

```

<div id="roundtrip">
    <form role="form" action="SearchResultRoundtrip.php"
method="post">
        <div class="row">
            <div class="col-sm-6">
                <label for="from">From:</label>
                <input type="text" class="form-control" id="from"
name="from" placeholder="Code " required>
            </div>
            <div class="col-sm-6">
                <label for="to">To:</label>
                <input type="text" class="form-control" id="to"
name="to" placeholder="Code" required>
            </div>
        </div>
        <hr>
        <div class="row">
            <div class="col-sm-6">
                <label for="depart">Depart:</label>
                <input type="date" class="form-control" id="depart"
name="depart" required>
            </div>
            <div class="col-sm-6">
                <label for="return">Return:</label>
                <input type="date" class="form-control" id="return"
name="return" required>
            </div>
        </div>
        <hr>
        <div class="row">

```

```

        <div class="col-sm-6">
            <label for="class">Class:</label>
            <select class="form-control" name="class">
                <option value="Economy">Economy</option>
                <option value="Business">Business</option>
            </select>
        </div>
    </div>
    <br>
    <div class="form-group">
        <label class="radio-inline">
            <input type="radio" name="stop" value="nonstop"
checked>Non-Stop
        </label>
    </div>
    <div class="btn-group btn-group-justified">
        <div class="btn-group">
            <button type="submit" class="btn btn-
success">Submit</button>
        </div>
        <div class="btn-group">
            <button type="reset" class="btn btn-
info" value="Reset">Reset</button>
        </div>
    </div>
</form>
</div>
<div id="all">
    <form role="form" action="SearchResultAll.php" method="post">
        <div class="row">
            <div class="col-sm-6">
                <label for="selectdate">Select a date:</label>
                <input type="date" class="form-control"
id="selectdate" name="selectdate" required>
            </div>
        </div>
        <br>
        <div class="row">
            <div class="col-sm-6">
                <button type="submit" class="btn btn-primary">Show
ALL</button>
            </div>
        </div>
    </form>
</div>
</div>

<footer class="container-fluid text-center">
    <a href="#signUpPage" title="To Top">
        <span class="glyphicon glyphicon-chevron-up"></span>

```

```

        </a>
        <p>TRAWELL</p>
    </footer>
</body>
</html>

```

Payment & Ticket Info:

```

<?php

if(session_status() == PHP_SESSION_NONE)
{
    session_start();//start session if session not start
}

if(isset($_SESSION['tracker'])) {
?>

<!DOCTYPE html>
<html lang="">
    <head>
        <meta charset="utf-8">
        <meta http-equiv="X-UA-Compatible" content="IE=edge">
        <meta name="viewport" content="width=device-width, initial-scale=1">
        <title>Trawell</title>

        <!-- Bootstrap CSS -->
        <link rel="stylesheet" type="text/css"
href="assets/css/bootstrap.min.css">
        <link rel="stylesheet" type="text/css" href="assets/css/bootstrap-
theme.min.css">

    </head>
<body style="background-color: lightblue;">

<nav class="navbar navbar-inverse">
    <div class="container-fluid">
        <div class="navbar-header">
            <a class="navbar-brand" href="#">Trawell</a>
        </div>
        <ul class="nav navbar-nav">
            <li class="active">
                <a href="#">Booking
                <span class="glyphicon glyphicon-share-alt" aria-hidden="true"></span>
            </a>
            </li>
        </ul>
        <ul class="nav navbar-nav navbar-right">
            <li><a href="../flight booking/homepage.html"><span class="glyphicon
glyphicon-backward"></span> Back To Home</a></li>
        </ul>
    </div>
</nav>

```

```

<div class="container-fluid">
  <div class="col-md-1"></div>
  <div class="col-md-10">
    <div class="panel panel-danger">
      <div class="panel-heading">
        <h3 class="panel-title">STEPS FOR BOOKING</h3>
      </div>
      <div class="panel-body">
        <div class="row">
          <div class="col-md-3">
            <div class="panel panel-default">
              <div class="panel-heading">
                <h3 class="panel-title">1. ITINERARY
              </h3>
            </div>
            <div class="panel-body">
              SCHEDULE OF TRAVEL
            </div>
          </div>
          <div class="col-md-3">
            <div class="panel panel-info">
              <div class="panel-heading">
                <h3 class="panel-title">2. CLASS
              </h3>
            </div>
            <div class="panel-body">
              CLASS TYPE
            </div>
          </div>
          <div class="col-md-3">
            <div class="panel panel-success">
              <div class="panel-heading">
                <h3 class="panel-title">3. PASSENGER INFO
              </h3>
            </div>
            <div class="panel-body">
              PASSENGER DETAILS
            </div>
          </div>
          <div class="col-md-3">
            <div class="panel panel-warning">
              <div class="panel-heading">
                <h3 class="panel-title">4. PAYMENT INFO
                <span class="glyphicon glyphicon-saved" aria-
hidden="true"></span>
              </h3>
            </div>
            <div class="panel-body">

```



```

        <strong>Book By:</strong> <?= ucwords($bookByInfo['book_by']);
    ?><br />
        <strong>Contact :</strong> <?= $bookByInfo['book_contact']; ?><br
    />
        <strong>Address:</strong> <?= $bookByInfo['book_address']; ?><br
    />
    </div>
</div>
<div class="container-fluid">
    <strong>
        <span class="glyphicon glyphicon-user" aria-hidden="true"></span>
        PASSENGERS</strong>
        <table id="myTable-party" class="table table-bordered table-
hover" cellpadding="0" width="100%">
            <thead>
                <tr>
                    <th>
                        <center>
                            Name
                        </center>
                    </th>
                    <th>
                        <center>
                            Age
                        </center>
                    </th>
                    <th>
                        <center>
                            Gender
                        </center>
                    </th>
                    <th>
                        <center>
                            Departure Price
                        </center>
                    </th>
                </tr>
            </thead>
            <tbody>
                <?php
                    require_once('data/getBooked.php');
                    $totalPayment = 0;
                    $tracker = '';
                    foreach($bookPass as $bp):
                        $name = $bp['book_name'];
                        $name = ucwords($name);
                        $price = $bp['acc_price'];
                        $totalPayment += $price;
                        $tracker = $bp['book_tracker'];
                    ?>
                    <tr align="center">
                        <td><?= $name; ?></td>
                        <td><?= $bp['book_age']; ?></td>

```

```

        <td><?= $bp['book_gender']; ?></td>
        <td><?= $price; ?></td>
    </tr>
    <?php endforeach; ?>
    <tr>
        <td></td>
        <td></td>
        <td align="right"><strong>TOTAL:</strong></td>
        <td align="center"><strong><?= $totalPayment;
?></strong></td>
    </tr>
</tbody>
<strong>- Booked ID: <?= $tracker; ?></strong>
</table>
<center>
    <a href="../../../flight booking/homepage.html" class="btn
btn-success">Return Home
    <span class="glyphicon glyphicon-backward" aria-
hidden="true"></span>
    </a>
</center>
</div>
</div>
</div>
<div class="col-md-3"></div>
</div>

<script type="text/javascript" src="assets/js/jquery-3.1.1.min.js"></script>
<script type="text/javascript" src="assets/js/bootstrap.min.js"></script>

</body>
</html>

<?php
}else{
    echo '<strong>';
    echo 'Page Not Exist';
    echo '</strong>';
} //end if else isset

?>

```

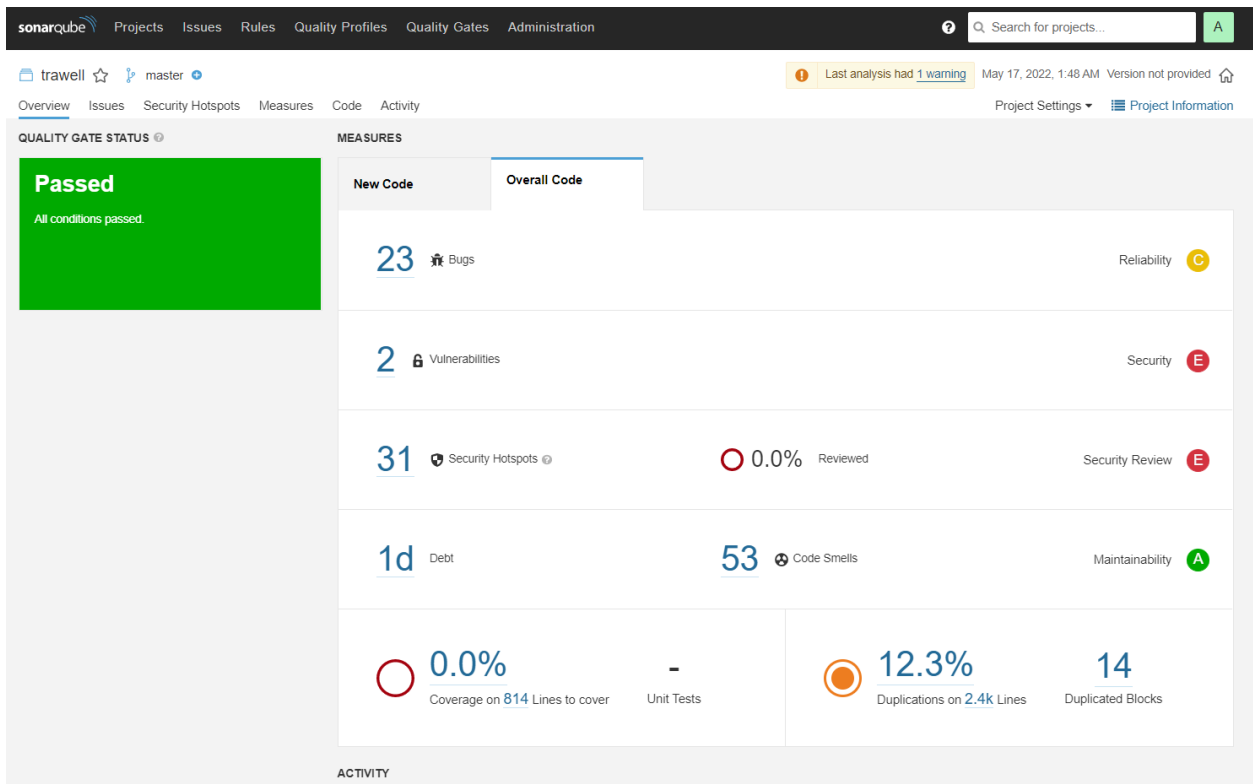
- **Sample Codes for homepage and Ticket page**

8. Testing:

- Static Code Analysis:

```
C:\xampp\htdocs\flight booking>sonar-scanner.bat -D"sonar.projectKey=trawell" -D"sonar.sources=." -D"sonar.host.url=http://localhost:9000" -D"sonar.login=a5a8eb94ff8c4455a17c58a45b50a1a6e28a06ef"
INFO: Scanner configuration file: C:\Users\Administrator\Downloads\sonar-scanner-4.7.0.2747-windows\bin\..\conf\sonar-scanner.properties
INFO: Project root configuration file: NONE
INFO: SonarScanner 4.7.0.2747
INFO: Java 11.0.14.1 Eclipse Adoptium (64-bit)
INFO: Windows 11 10.0 amd64
INFO: User cache: C:\Users\Administrator\.sonar\cache
INFO: Scanner configuration file: C:\Users\Administrator\Downloads\sonar-scanner-4.7.0.2747-windows\bin\..\conf\sonar-scanner.properties
INFO: Project root configuration file: NONE
INFO: Analyzing on SonarQube server 9.4.0
INFO: Default locale: "en_IN", source code encoding: "windows-1252" (analysis is platform dependent)
INFO: Load global settings
INFO: Load global settings (done) | time=244ms
INFO: Server id: 147B411E-AYDOaQHvURDQhhurDIX9
INFO: User cache: C:\Users\Administrator\.sonar\cache
INFO: Load/download plugins
INFO: Load plugins index
INFO: Load plugins index (done) | time=148ms
INFO: Load/download plugins (done) | time=2732ms
INFO: Process project properties
INFO: Process project properties (done) | time=52ms
INFO: Execute project builders
INFO: Execute project builders (done) | time=9ms
INFO: Project key: trawell
INFO: Base dir: C:\xampp\htdocs\flight booking
INFO: Working dir: C:\xampp\htdocs\flight booking\scannerwork
WARN: Exception encountered during context initialization - cancelling refresh attempt: org.springframework.beans.factory
```

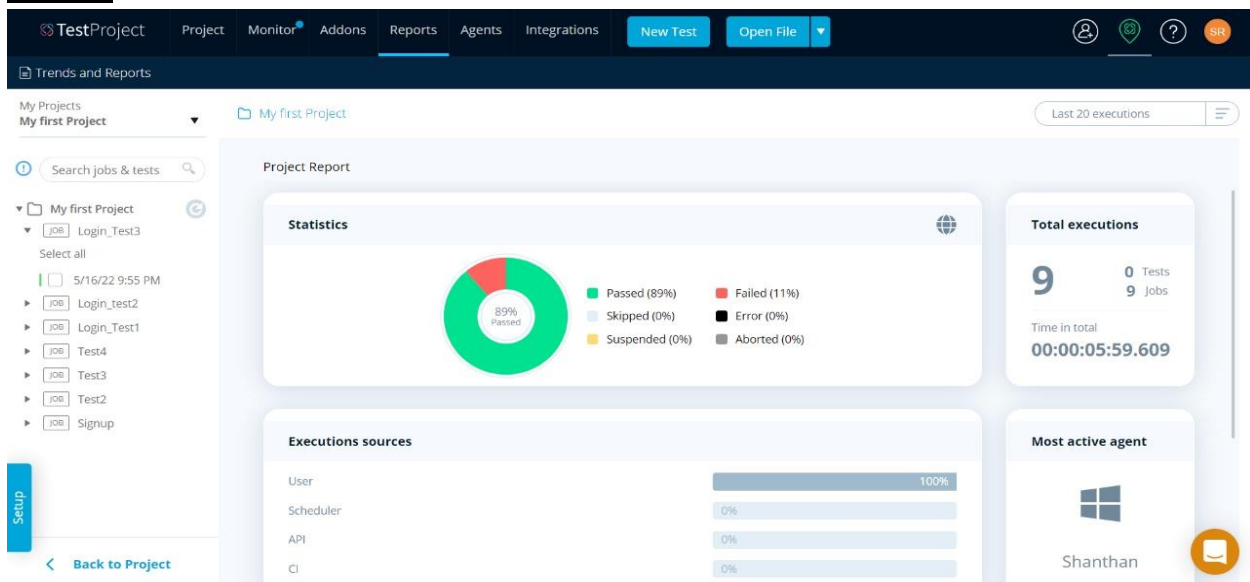
```
INFO: Sensor VB.NET Project Type Information [vbnet]
INFO: Sensor VB.NET Project Type Information [vbnet] (done) | time=3ms
INFO: Sensor VB.NET Analysis Log [vbnet]
INFO: Sensor VB.NET Analysis Log [vbnet] (done) | time=39ms
INFO: Sensor VB.NET Properties [vbnet]
INFO: Sensor VB.NET Properties [vbnet] (done) | time=1ms
INFO: ----- Run sensors on project
INFO: Sensor Zero Coverage Sensor
INFO: Sensor Zero Coverage Sensor (done) | time=107ms
INFO: SCM Publisher No SCM system was detected. You can use the 'sonar.scm.provider' property to explicitly specify it.
INFO: CPD Executor 5 files had no CPD blocks
INFO: CPD Executor Calculating CPD for 27 files
INFO: CPD Executor CPD calculation finished (done) | time=130ms
INFO: Analysis report generated in 338ms, dir size=342.9 kB
INFO: Analysis report compressed in 834ms, zip size=126.6 kB
INFO: Analysis report uploaded in 147ms
INFO: ANALYSIS SUCCESSFUL, you can find the results at: http://localhost:9000/dashboard?id=trawell
INFO: Note that you will be able to access the updated dashboard once the server has processed the submitted analysis report
INFO: More about the report processing at http://localhost:9000/api/ce/task?id=AYDOiVn_k2TfZr0BACSY
INFO: Analysis total time: 4:24.406 s
INFO: -----
INFO: EXECUTION SUCCESS
INFO: -----
INFO: Total time: 7:02.818s
INFO: Final Memory: 17M/64M
INFO: -----
C:\xampp\htdocs\flight booking>
```



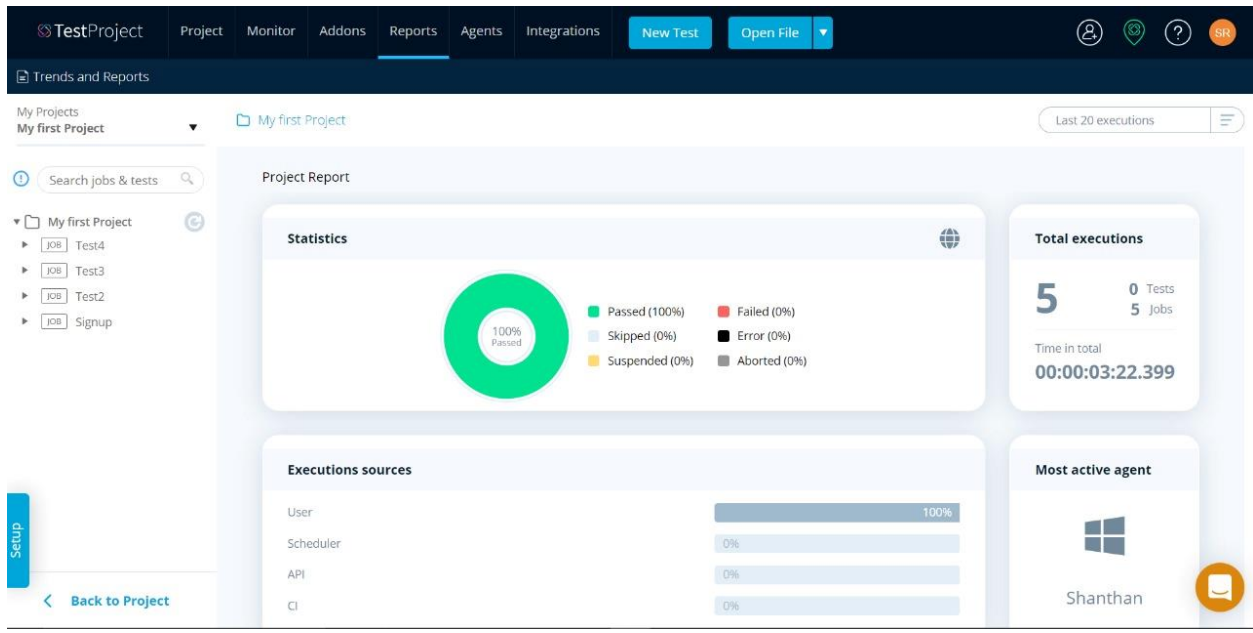
TestProject(Unit Testing):

Sprint1:

Login:

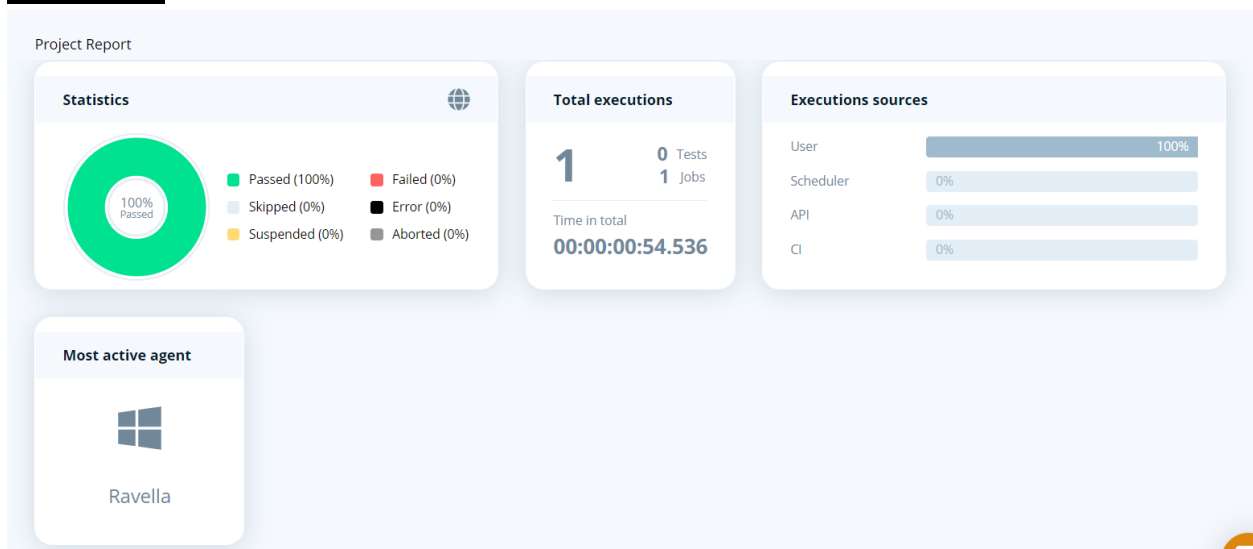


Admin:

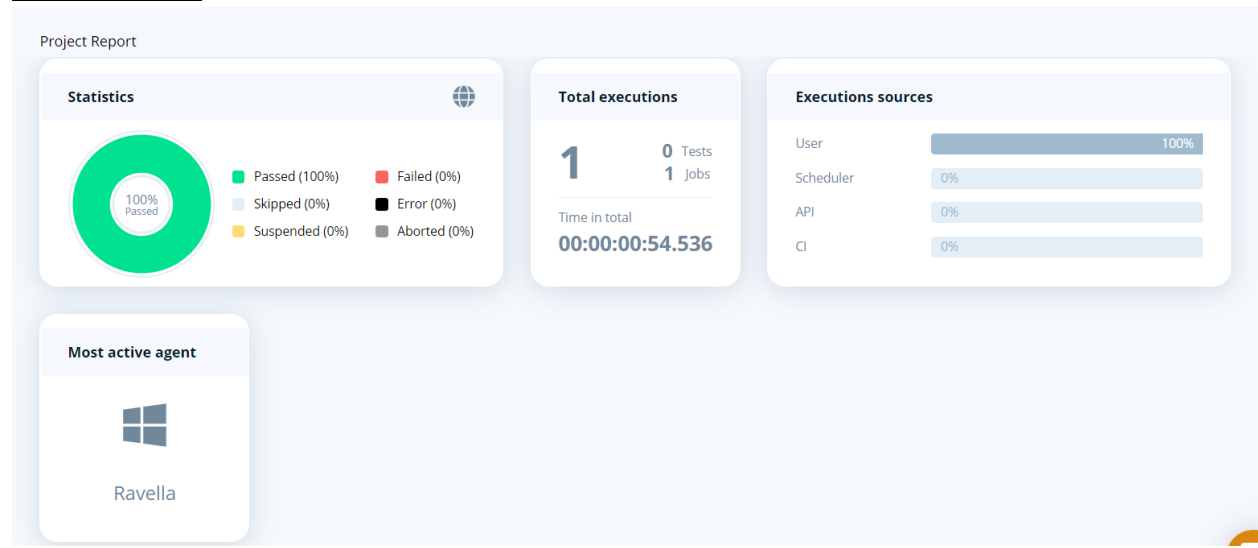


Sprint2:

Itinerary:



Ticket Info:



Overall:



Jenkins:

5/17/22, 1:13 AM

TestProject_WebTest #5 Console [Jenkins]



1

1

[Dashboard](#) ▸ [TestProject_WebTest](#) ▸ #5



[Back to Project](#)



[Status](#)



[Changes](#)



[Console Output](#)



[View as plain text](#)



[Edit Build Information](#)



[Delete build '#5'](#)



[Previous Build](#)



Console Output

Started by user [Shanthan](#)

Running as SYSTEM

Building in workspace C:\Users\Shanthan\.jenkins\workspace\TestProject_WebTest

Sending a test run command to TestProject

Starting TestProject test vFzkCtv2GU6MxFIyoBz3cw under project M8QP-vgHAUGp1EGAPSo-2A...

Execution id: tDf5eyXRwEK9Xr0x1CmCvg

Will not wait for execution to finish

TEST vFzkCtv2GU6MxFIyoBz3cw under project M8QP-vgHAUGp1EGAPSo-2A was started successfully

Finished: SUCCESS

Jenkins 2.332.3

localhost:8080/job/TestProject_WebTest/5/console

1/1

9. Screenshots:

Done in sprint1:

SignUp:

[Home](#)

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:

dd-mm-yyyy

* Phone:

Enter Your Phone Number

Check Availability

Sign Up

Login:

[Home](#)

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:

Your password:

☐ Remember my username when I return

Sign In

Searching:

[Home](#)

Search Flights

Choose your flight option

One-way

Round-trip

Search all flights

From:
City or Code

To:
City or Code

Depart:
dd-mm-yyyy

Class:
Economy

☒ Non-Stop ☐ 1 Stop

Submit

Reset

Admin(Add/Update/Delete):

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

AddUpdateDelete

Flight No.

Airplane ID

Departure Airport

Departure Time

Arrival Airport

Arrival Time

Economy Capacity

Economy Price

Business Capacity

Business Price

details

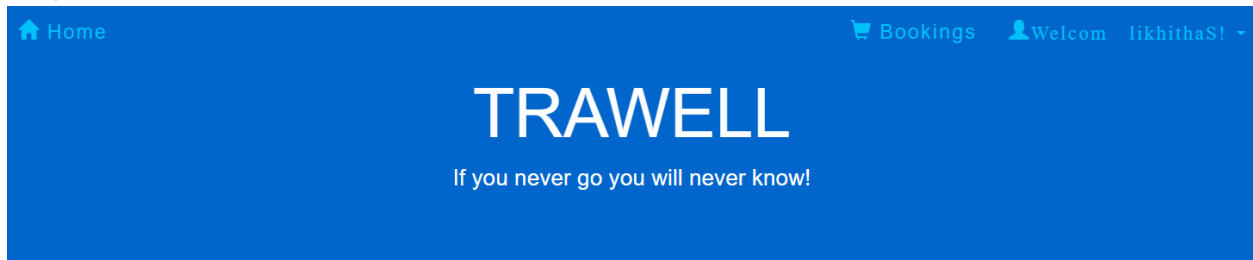
details

details

submit

Done in sprint2:

Flight Details:



Bookings

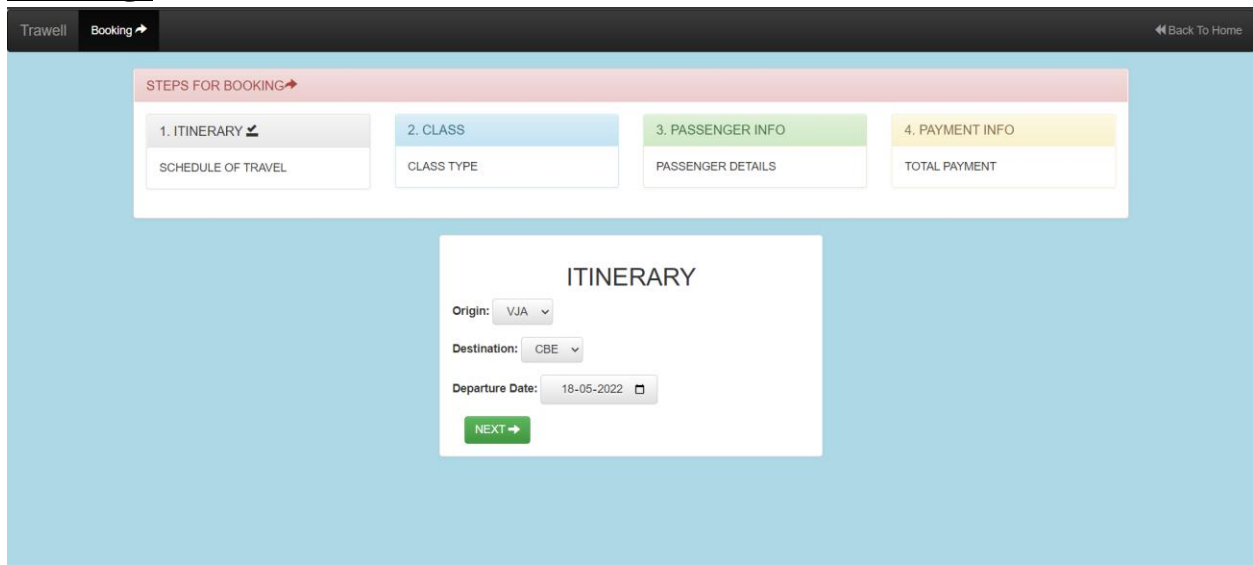
In the shopping cart:

Time	Flight	Aircraft	Date	Departure	Departure Time	Arrival	Arrival Time	Class	Price	Pay
2022-05-16 11:23:17	A001	Indigo A001	2022-05-17	CBE	14:30:00	VGA	16:00:00	Economy	3099	Delete

Total: ₹3099

Pay

Booking:



Economy(Class selection):

STEPS FOR BOOKING

1. ITINERARY

SCHEDULE OF TRAVEL

2. CLASS

CLASS TYPE

3. PASSENGER INFO

PASSENGER DETAILS

4. PAYMENT INFO

TOTAL PAYMENT

CLASS

Class	Slots	Fare
<input type="radio"/> Sitting	50	3500
<input checked="" type="radio"/> Economy A	117	5000
<input type="radio"/> Economy B	29	390
<input type="radio"/> Tourist	20	4900
<input type="radio"/> Cabin	30	6000
<input type="radio"/> Business	28	7000

Number of Passengers:

NEXT

Enter Passenger Details:

Message! Please review your passenger information. You cannot change your reservation once you proceed. ✕

PASSENGER INFO

Booked By:

Abhinav

Contact:

8688736036

Address:

cb.en.u4@cb.students.amrita.edu

Passenger 1:

Full Name 1:

R Abhinav

Age: 1:

20

Gender:

Male ▼

NEXT ➔

Ticket Details:

TICKET DETAILS

FLIGHT TIMINGS

Trawell, Amrita Vishwa Vidyapeetham

VJA - CBE

Departure Date: 2022-05-18 @9:00AM

Estimated Arrival Time: The Next Day @3:00PM


Class: Economy A

CONTACT INFO

Book By: Abhinav

Contact : 8688736036

Address: cb.en.u4@cb.students.amrita.edu

 **PASSENGERS - Booked ID:** 62827a9be9b4e

Name	Age	Gender	Departure Price
R Abhinav	20	Male	5000
		TOTAL:	5000

[Return Home](#) <<

10. Conclusion:

The aim of this project was to develop a website that helps the admin to add, delete, and update data and user book the search flights, and book tickets. The system also allows the customer to cancel his/her reservation if any problem occurs. Also enables cart service which can be used for further bookings. Thus, the primary purpose of this software is achieved.