



VIMANA.COM

EXPERIENCE THE BEST

CIS 9490
SEMESTER PROJECT

Team 1

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TOPICS



- ▶ Interview Questions and Analysis Report
- ▶ Competitive Analysis Report
- ▶ Usability Test Analysis
- ▶ Information Architecture Diagram
- ▶ Use Case Diagram
- ▶ Activity Diagram
- ▶ User stories(JIRA)
- ▶ Story Boards
- ▶ Wireframes

INTERVIEW QUESTIONS AND ANALYSIS REPORT



We have performed user interviews of 3 males and 1 female.

1. Users on an average travel twice a year for leisure.

2. They prefer booking flights online using laptop.

3. **Difficulty in booking:-**

- ▶ Users find it difficult to find the right combination of the flights at suitable times along with the hotel
- ▶ Users are unable to find the cheapest deal and best flight based on timing and the price.
- ▶ In case of cancellation or changes in booking it is a tedious task as user needs to call airlines , wait for them to respond etc whereas in case of travel agents, it is the agent that does it all for the user.

4. **Things that could make the booking process easy:-**

- ▶ User friendly UI
- ▶ Getting the optimum combination of good flights and good hotels faster and feel assured that user got the best deal in the market
- ▶ User can reserve the ticket and can keep the ticket on hold for 2-4 working days like travel agents do
- ▶ Consolidated website where user could compare prices and get the cheapest flight

Link for :-Interview Questionnaire & User Responses

INTERVIEW QUESTIONS AND ANALYSIS REPORT



VIMANA
Experience The Best

Users Favourite website:- KAYAK, Priceline, Expedia

Why users like these websites

- User friendly UI
- Clean Websites make it easy and a pleasurable booking experience
- KAYAK:-gives a comparison grid for multiple days. Priceline:- credit card with priceline that gives reward point while booking.
- Kayak: all the flights listed at one except southwest, Expedia : best vacation packages,Homeaway:best vacation package

What users don't like about these websites

- Cost updates upon flight selection
- Too many options to choose from
- Priceline:-Cannot see the e-ticket for the upcoming flights on the website
- Kayak : lot of popups, Expedia: filter options are not as great, - Homeaway: search parameters, geographics location not as required and appropriate

Changes suggested by users

- Customizable options
- Website can customize the options based on user travel history and preferences like working with the knowledge of user usual (average) budget and favored airlines and hotels.
- Automatic webcheck option when the window gets open.In this option automatic seats are selected based on some preference order of customer which he/she can mention while booking.
- Reduce popups, provide proper filters, and good geographical and 3 D view of locations.

Competitive Analysis

WEBSITES	SEARCH OPTIONS	SEARCH FEATURES	OPTION TO SEARCH BY AIRLINES	PRICE COMPARISON	REWARDS AND DISCOUNTS	USER INTERACTIVITY
KAYAK.COM	Flight, Hotels, Car rentals, packages, cruises, flight tracker	Good filter options;search by Airline, time, stops, layovertime, airports, booking providers. However to search for a particular thing one will have to 'un-tick' the other options to filter them out.	Available but at a later stage	Enables price comparison on a new page,however, it is not so clear	Discounts and offers provided on the search results page itself however, it is too clumsy for the user to differentiate between the airline and discount deal. All deals may not be relevant to the search results.	Interactive but confusing as every search takes you to a new page. Also, it is difficult to figure out where the search comparision with other websites is available, but a standardized process.
EXPEDIA	Hotels, cars, flights, cruises, vacation rentals, deals, rewards, option to get mobile app, things to do at your destination, option to search for flights +hotel,flights+hotels+cars etc.,advanced search option(refundable flights or nonstop).	Good filter options;search by airport,departure time,airlines, stops(non-stop option not available on serach results page) etc	Available but at a later stage	Enables price comparison on a new page,however, it is not so clear.	Deals option available at the top taking you to a totally different page, not so prominent, rewards on sign in.	Interactive and user friendly.Clear and standardized process.
CHEAPOAIR	Flights,hotels,cars,vacations,explore taking you to interactive map and many more options under the 'more' menu,helpline number prominent	Wide filter options;search by stops,airlines,flight time,layover time ,connecting destinations,and option to revise search on the same page(if you forget to add non stop in initial search then you can easily as for it on the same page), however, to search for a particular thing one will have to 'un-tick' the other options to filter them out.	Available but at a later stage	Enable price comparison of various websites on the same page.	Discounts pop-ups very prominent, rewards on signin available, discounts on credit cards, all offers very clear on the first page itself.	Very interactive and user friendly.Easy and standardized process.
OUR WEBSITE	Flights,hotels,cars,vacations,explore taking you to interactive map and many more options under the 'more' menu, help number,option to search flight +hotel+car, nonstop,onestop,search by airline option	Wide variety of filter options helping to narrow down the search results , no navigating on different pages.	available on the initial stage itself and also option to revise airline search on the results page.	Enable price comparison of various websites on the same page.	discounts pop-ups very prominent, rewards on signin available, discounts on credit cards, all offers very clear on the first page itself.	Very interactive and user friendly.Easy and standardized process.

Example of Check Box Feature Comparison



Secure | <https://www.kayak.com/flights/NYC-BRU/2017-05-17/2017-05-18?fs=airlines=-operators.LH:stops=-1;airports=-EWR>

Carrier Alliance

- ☒ Aeroflot
- ☒ Aer Lingus
- ☒ Air Canada
- ☒ Air France
- ☒ American Airlines
- ☒ British Airways
- ☒ Alitalia
- ☒ Brussels Airlines
- ☒ Czech Airlines
- ☒ Austrian Airlines

Watch Share

\$3147
Orbitz

Air France

7:31p JFK → 9:15a BRU 7h 44m nonstop
11:00a BRU → 1:24p JFK 8h 24m nonstop

Show details

Operated by Delta

Watch Share

\$3180
KLM

KLM

5:35p JFK → 10:08a ZYR 10h 33m 2 stops (AMS, ZWE)
1:52p ZYR → 7:25p JFK 11h 33m 2 stops (ZWE, AMS)

JustFly.com (800) 717-5015
★★★★★ (4.6)
\$415 Brussels Round Trip Fares - Book In 6 hours. Really Cheap
Cheap Flights To Brussels From \$415. Fly From New York. Book Today & Save!
No Extra Charges · Service Excellence
brusselsairlines.com

Secure | [https://www.expedia.com/Flights-Search?trip=roundtrip&leg1=from:New%20York,%20NY,%20United%20States%20\(JFK\),to:Mumbai%20India%20\(BOM\),departure:05/24/2017](https://www.expedia.com/Flights-Search?trip=roundtrip&leg1=from:New%20York,%20NY,%20United%20States%20(JFK),to:Mumbai%20India%20(BOM),departure:05/24/2017)

Select your departure to Mumbai Wed, May 24

Prices are roundtrip per person, include all taxes and fees, but do not include baggage fees.

You can turn on your search notes in your [Scratchpad](#).

1 Stop Jet Airways

Watermark: Airline Fares

Stops

- ☒ 1 Stop (69)
- ☐ 2+ Stops (32)

Airlines included

- ☐ Delta (20)
- ☒ Jet Airways (19)
- ☐ Emirates (10)
- ☐ Etihad Airways (10)
- ☐ KLM (8)
- ☐ Qatar Airways (8)
- ☐ Air India (5)

From: \$786

From: \$967

From: \$988

From: \$1,117

From: \$947

From: \$1,029

From: \$1,148

From: \$982

From: \$952

Save \$232* on average when you book your Flight and Hotel together.
Shop Flight + Hotel

7:30p - 11:10p +1
Jet Airways
Jet Airways 8089 operated by Delta

18h 10m
JFK - BOM

1 stop
1h 40m in LHR

Good Flight (7.3 out of 10)

\$1,116.25
Select

7:00p - 11:10p +1
Jet Airways
Jet Airways 5813 operated by Virgin Atlantic

18h 40m
JFK - BOM

1 stop
2h 10m in LHR

Good Flight (7.3 out of 10)

\$1,116.25
Select

AUSTRALIA
WITH INFINITE VIEWS

USABILITY TEST ANALYSIS



UserTesting Report by Akshay

UserTesting Report by Chani

UserTesting Report by Pooja

UserTesting Report by Vrushali

USER TESTING ANALYSIS



▶ User Testing Demographics:

The demographics of the test group of 12 users used in this user testing exercise are as follows:

Age	25–35
Income	\$0K–\$150K+
Gender	6 Males & 6 Females
Country	United States

- ▶ The users had varying levels of technical expertise, but were all proficient with surfing websites on the internet. This is typical of the age group represented by the said demographic.
- ▶ The main themes highlighted by the users based on their experience of using CheapOair.com for booking air tickets are as follows.

USER TESTING ANALYSIS

What Users Liked:

- ▶ The overall 'Flight Search' for finding the cheapest flight was rated positively. Users stated the task of searching a flight was very easy.
- ▶ Few users liked the upfront promo-code popup.
- ▶ Most users liked the one page booking process which eliminates the need to navigate on different pages.
- ▶ All users liked that while filling in details, the green check marks and red cross marks make it easy to identify mistakes in individual fields.
- ▶ Some users like the website feature of predicting future prices on certain dates, while selecting the dates of travel. This is helpful in making decisions based mainly on price considerations.

USER TESTING ANALYSIS



What Users Disliked:

- ▶ The first impression of all twelve users of the website was that of an average flight booking website. The search option showed significant usability issues.
- ▶ Some users expressed that the search time for flights was quite long and there was no indication for the progress during this wait which makes them irritable.
- ▶ The search options on the left side seemed cluttered and not very prominent. Some filters were hidden and not evident to the users.
- ▶ It was observed that for many users the Travel protection plan was quite confusing and they preferred that it be separated from the booking process and only shown when the user explicitly wishes to subscribe to such a plan.
- ▶ For most of the users the process of booking their tickets took longer than expected and the length of the process can be shortened further by making the filtering process easier.
- ▶ Some users found the seating choice to be misleading as the image shown in the popup did not accurately represent the flight seating plan.

USER TESTING ANALYSIS

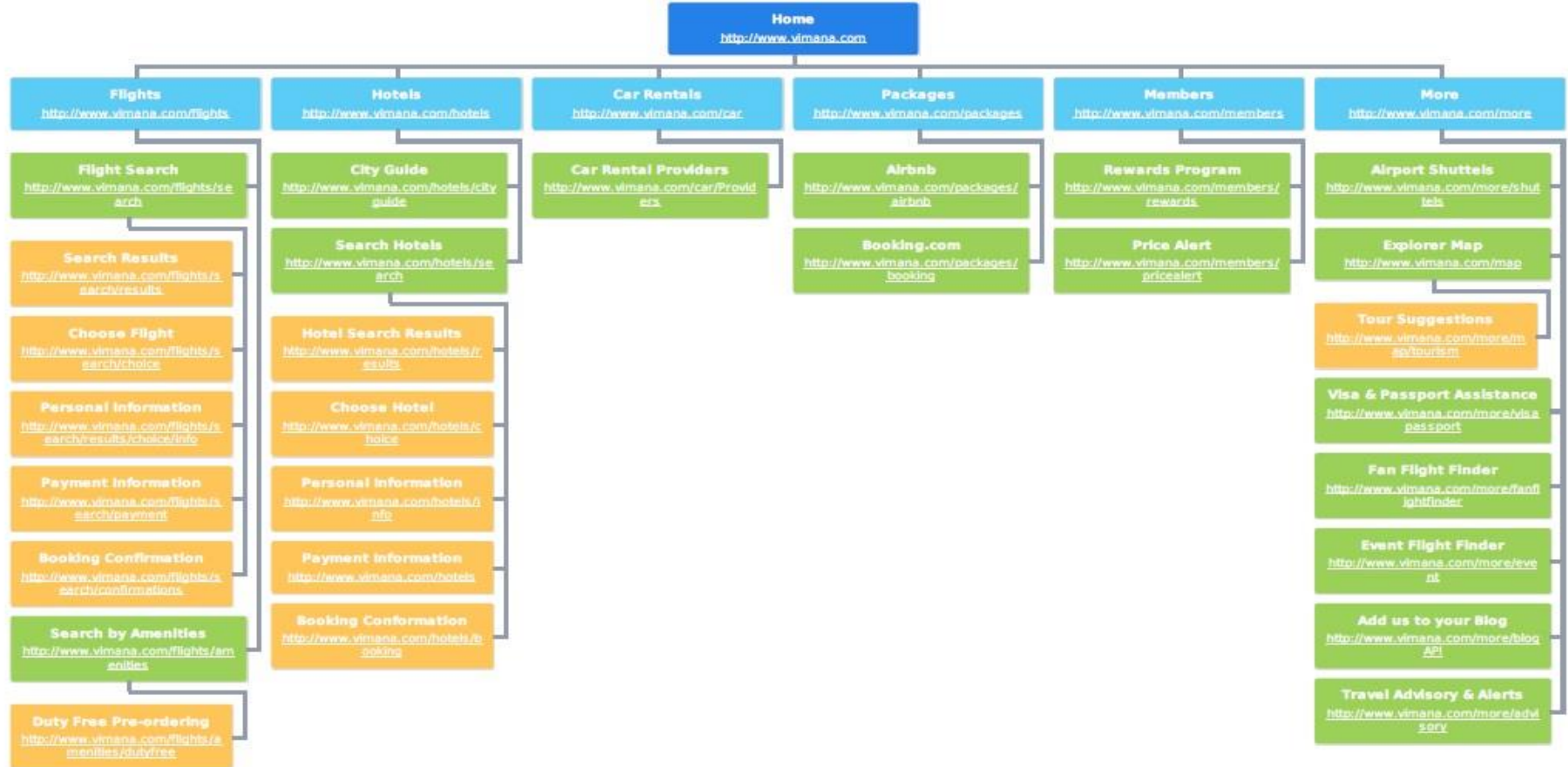
Subjective Ratings:

- ▶ CheapOair received overall positive subjective ratings.
- ▶ Average rating for each task is above 4.
- ▶ The overall both ease of use and satisfaction rating average is 4.

Problem Areas:

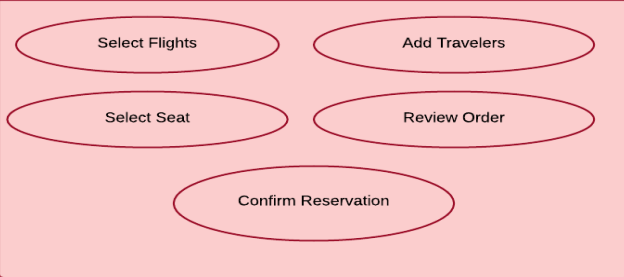
- ▶ The following represents a high level list of problems found during the evaluation:
- ▶ On Search results page, the users experienced that there was a lot of options on the screen like filters and advertisements.
- ▶ User was confused by the Travel Protection Plan option as how the selecting/deselecting was affecting the price was not clear.
- ▶ Users had some difficulty while Seat selection as "preferred seat", "main cabin extra" are confusing since they are not self-explanatory like other options like "unavailable seat", also the image in seat selection does popup but it does not reflect the flight seat layout.
- ▶ Overall the booking process took longer than the users expected.

INFORMATION ARCHITECTURE(IA) DIAGRAM

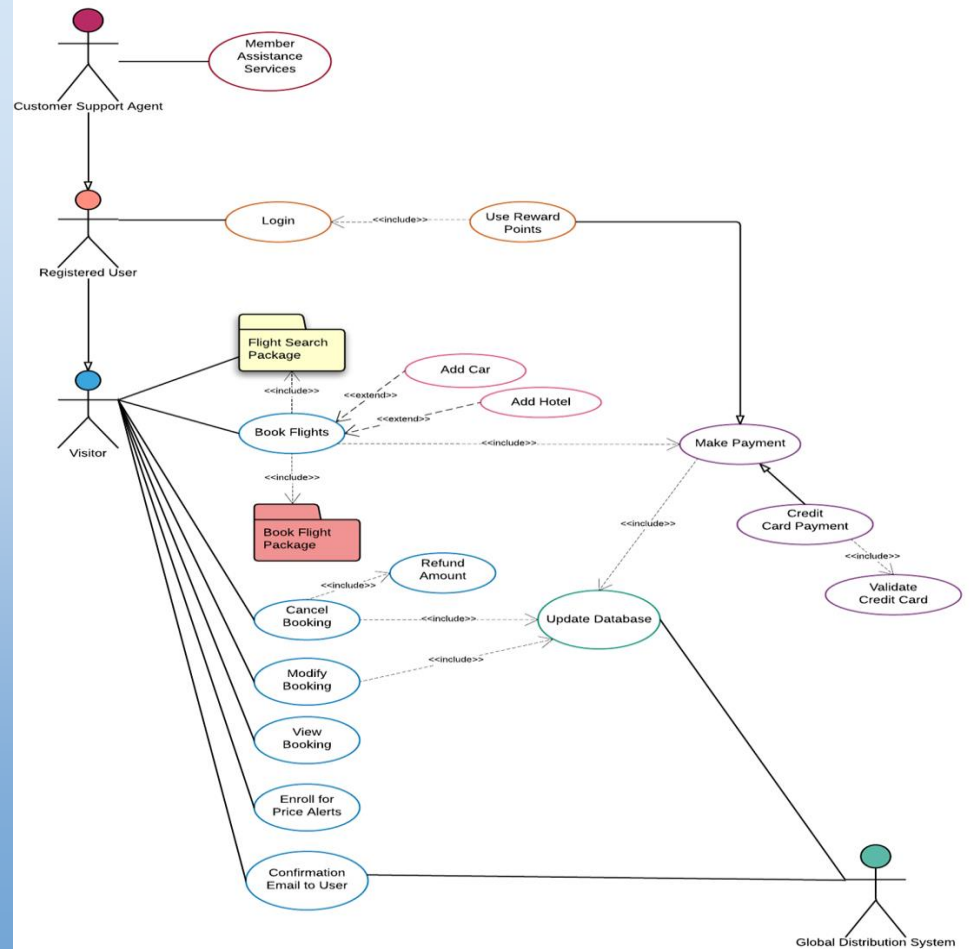


Flight Booking Use Case

Book Flight Package



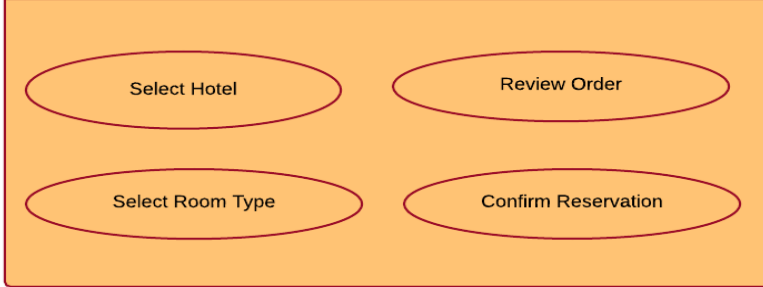
Flight Search Package



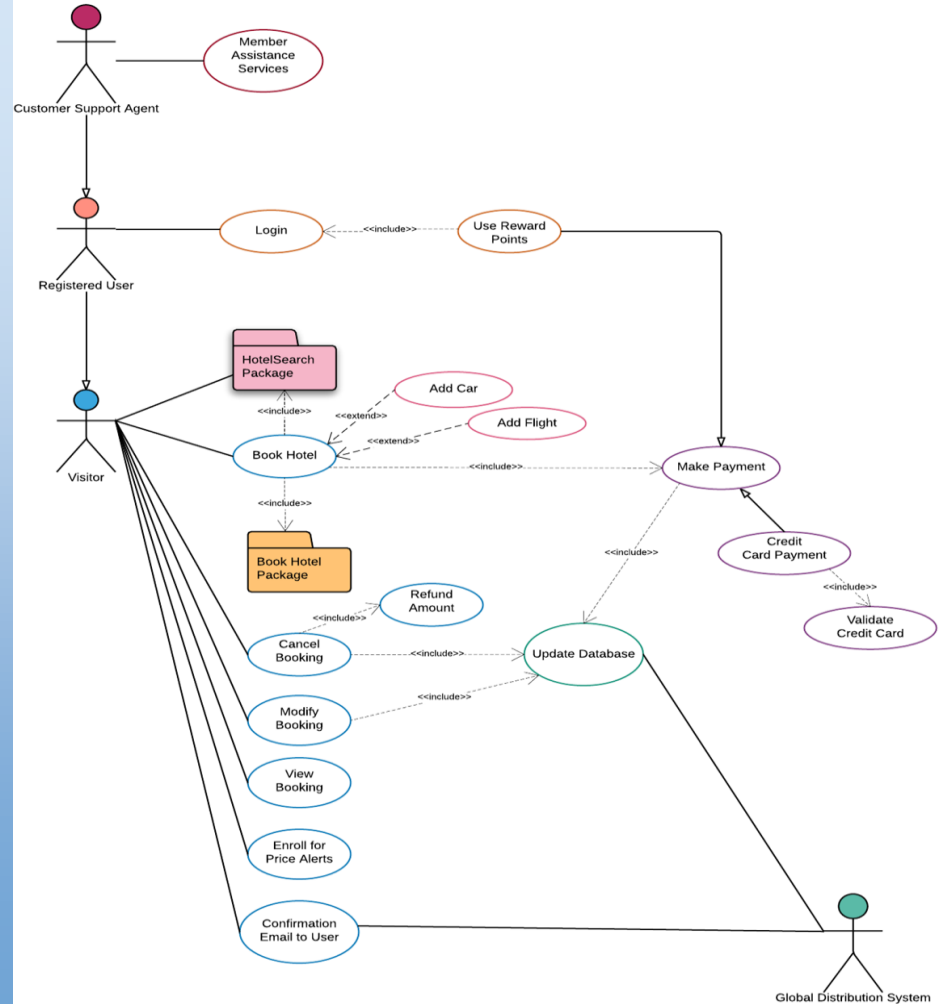
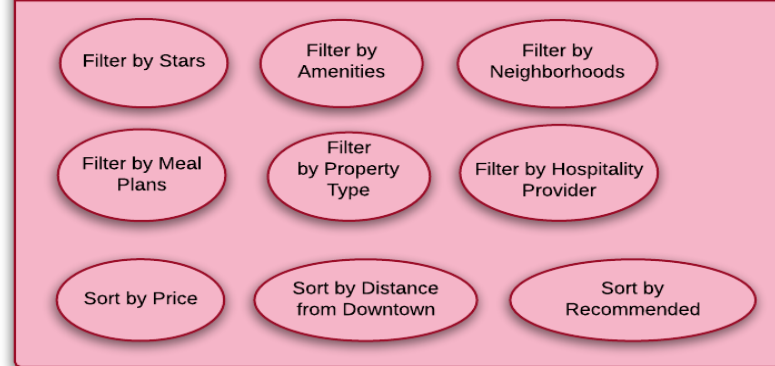
USE CASE DIAGRAM

Hotel Booking Use Case

Book Hotel Package



Hotel Search Package



USE CASE DIAGRAM

Flight Booking Use Case

<https://www.lucidchart.com/invitations/accept/ccf0a480-a83a-4f94-aa09-c545409289cf>

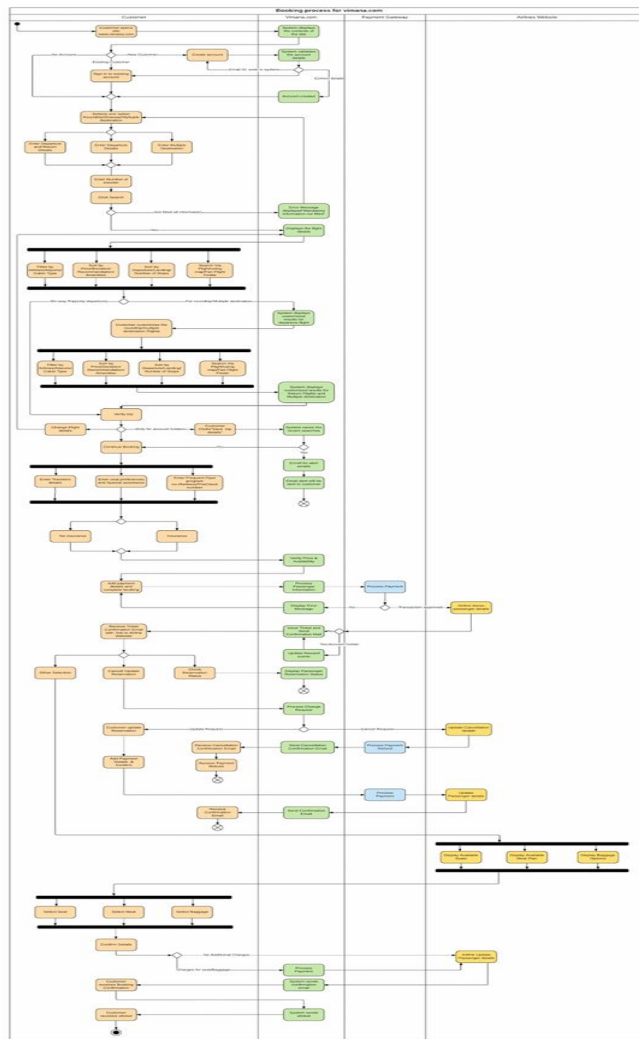
Hotel Booking Use Case

<https://www.lucidchart.com/invitations/accept/0d4dd30b-cbf4-462d-bb89-af59e85c30fb>

ACTIVITY DIAGRAM (FOR FLIGHT BOOKING PROCESS)

Activity diagram

<https://www.lucidchart.com/invitations/accept/ee68ae6b-432a-43e1-860c-3f01fbbf70a8>



USER STORIES (JIRA)

[CIS9490-136] Group1 Project VIMANA

1. CIS9490-137 Sports Fan Flight Finder
2. CIS9490-138 Event Flight Finder
3. CIS9490-139 API for Blog
4. CIS9490-140 Map Explorer
5. CIS9490-141 Tourism suggestions
6. CIS9490-142 Car Rentals
7. CIS9490-143 Price Alerts
8. CIS9490-144 Rewards
9. CIS9490-145 Travel Package
10. CIS9490-146 Advanced Search option for flight booking

USER STORIES (JIRA)

11. CIS9490-147 Sort Option on Flight Search Results Page
12. CIS9490-148 Flight Search Results Page to have Filter option
13. CIS9490-149 Get Price Alert while Flight booking
14. CIS9490-150 Flight details and Payment Information on one page
15. CIS9490-151 Display number of hotels catering to my requirements
16. CIS9490-152 Charges Breakdown
17. CIS9490-153 Check In/Out Timings
18. CIS9490-154 Resend Email Confirmation
19. CIS9490-155 Price Alert for Hotels
20. CIS9490-158 Check-Out as Guest

Storyboards-GET PRICE ALERTS



1 Flight Search

🔍 Searching for cheap flights and believing that if we wait just a little longer, prices will drop



2 Set price alert

🔍 Set a price alert and receive a message/email when price falls below the price limit.



3 Get alert and confirm booking

🔍 Book the cheapest flight.



4 Travel more pay less

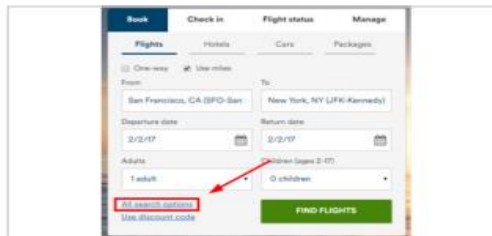
🔍 Travel the world for less!!!!

Storyboards-ADVANCED SEARCH OPTIONS



1 Searching for flights

- ✈ Searching for Non-stop round-trip and with to return to different airport and your preferred airlines



2 Advanced options available

- ✈ User can search from advanced search options.



3 Find the best match and book

- ✈ Book your preferred airline and preferred coach



4 Fly with your preferred airline

- ✈ Travel with your airline of your choice

Storyboards-MAP EXPLORER



1 Undecided traveler

- ✧ Undecided travelers look for affordable destinations to plan their itinerary.



2 Explore Maps

- ✧ Undecided travelers explore affordable destinations on Vimana's Map explorer.



3 Finds a destination

- ✧ They find an affordable destination on Vimana's Map explorer.



4 Proceeds to book

- ✧ Proceeds to book tickets to the destination of choice.

Storyboards-FAN FLIGHT FINDER



1 Sports Fans

- ✧ Sports fans are always looking for tickets in large numbers to support their teams.



2 Fan searching flight tickets

- ✧ This fan is looking for an easy website for tickets in large numbers to follow his team.



3 Finds Vimana's Fan Flight Finder

- ✧ Proceeds to book multiple tickets for multiple people according to his team's schedule.



4 Likes Vimana's Fan Flight Finder

- ✧ Books multiple tickets to multiple destinations following team schedule. It is so simple, almost child's play!

Storyboards- API



1 Travel Blogs

- ✎ Vimana customers can add us to their travel blogs and share their amazing experiences.



2 Share Your Photos & Videos

- ✎ Vimana customers can share their travel photos with the world.



3 Become Rich

- ✎ When you share your blog with us, we pay you handsomely. Earn for your photographs and videos.



4 Case Study

- ✎ Listen to our loyal customers and their wonderful experiences about Viman API.

Storyboards- VISA ASSISTANCE



1 Unsure?

🕒 If you are unsure about the visa requirements for your travel, check it out at [Vimana.com](https://www.vimana.com)



2 Visa Assistance

🕒 Tell us about your Citizenship and where you want to go.



3 You are Set!

🕒 Tada! We give you the required information at your fingertips. Plan your travels with no more worries.

Storyboards- Travel Package



1 Planning a vacation in Europe? Not able to decide upon a place?

✂ She was planning to go on a vacation and wanted suggestions to suit her budget.



2 At Vimana, get suggestions about the cheapest places to visit

✂ She decides to visit www.vimana.com and gets suggestions of the cheapest cities for travel purposes.



3 Find the best deal

✂ She finds the best deal suiting her budget.



4 Book the package

✂ Drop images into a storyboard

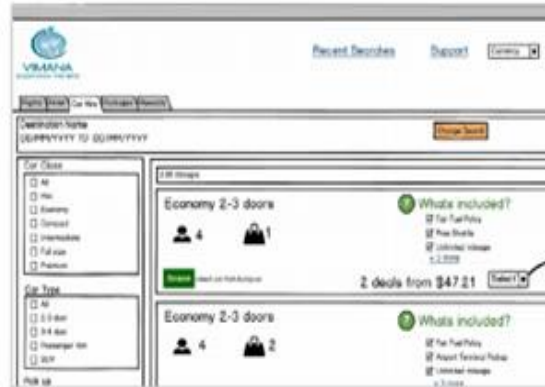
✂ Confirms her booking and enjoys her vacation.

Storyboards- Rent-a-car



1 Deciding how to get back home?

✎ At vimana, you can book a car along with flight and hotel to help you get to your home/hotel on time.



2 Options to choose from various type of cars

✎ Variety of options available to choose the best car suitable for you.



3 Get the best car option and book.

✎ Book the car!

WIREFRAMES

- ▶ Homepage/Flight Search Screen
- ▶ Hotel Search
- ▶ Car Search
- ▶ Packages
- ▶ Rewards
- ▶ Visa Assistance
- ▶ Map Explorer
- ▶ More
- ▶ Fan Flight Finder
- ▶ Event Search
- ▶ API
- ▶ Advisory & Alerts
- ▶ Airport Shuttle
- ▶ Tourism
- ▶ City Guide
- ▶ Login or Sign Up

COMPLETE WIREFRAME DOCUMENT LINK

<https://drive.google.com/file/d/0BxwB7uAyg7GERjMzekIBSU5qLUU/view?usp=sharing>



THANK YOU