

Aishani Goyal	2022 BTech 007
Arukhita Dubey	2022 BTech 019
Bhoomi Mehta	2022 BTech 025
Divya Arora	2022 BTech 031
Ishita Agarwal	2022 BTech 043
Akshita Bhandari	2022 BTech 009

## Airline Project

### # Problems faced -

#### → USER'S PERSPECTIVE :

##### 1. Booking and Reservation -

- How can I book a direct flight between two specific cities?
- What is the process for reserving a seat on a flight?
- Can I book a round-trip ticket easily?
- What are the costs associated with booking, and are there any hidden fees?

##### 2. Flight Information -

- What are the available direct flights from my current city to a specific destination?
- How long is the flight duration for a particular route?
- Can I get information on layovers and connecting flights?
- How do unexpected changes or cancellations due to weather, technical issues, overbooking impact my travel plans?

##### 3. Price and Discounts -

- What is the cost of a ticket for a particular route?
- Are there any ongoing discounts or promotions?
- Can I find the cheapest available flights within a specific date range?
- How do unexpected changes or cancellations impact the overall cost of my trip?



#### 4> Cancellations and Refunds -

- What is the cancellation policy, and how can I cancel ticket?
- Are there any charges for cancelling or changing a reservation?
- How does the refund process work, especially in the case of unexpected changes or cancellations?
- Is there a policy for compensation if my luggage gets damaged during the journey?

#### 5> Baggage and Carry-On -

- What is the baggage allowance for my ticket?
- Are there additional charges for excess baggage?
- Can I bring a carry-on item, and what are the size restrictions?
- How do limited space and comfort impact the overall travel experience?

#### 6> Flight Status and Delays -

- How can I check the real-time status of my flight?
- What happens if my flight is delayed or cancelled?
- Is there compensation for delays beyond a certain timeframe?
- How do turbulences and delays affect the overall travel experience?

#### 7> Travel Documents -

- What documents are required for international flights?
- How early should I arrive at the airport for check-in?

#### 8> Accessibility and Special Needs -

- Are there facilities for passengers with special needs?
- How can I request assistance for mobility or medical requirements?
- Are there any considerations for travelling with infants or pets?



# Airline Company's Perspective

## Booking System:

- How can we optimize the booking process for users?
- What algorithms can be implemented to manage seat reservations efficiently.
- Is there a mechanism to handle high demand during peak booking times?

## 2. Flight Scheduling:

- How can we optimize the scheduling of direct and connecting flights?
- What algorithms can be used to minimize layover times and improve overall time?
- How can we adapt the schedule to accommodate changes in demand?

## 3. Price Optimization:

- What algorithms can be employed for dynamic pricing?
- How can we implement a pricing strategy that considers factors like demands, seasonality, and competitor prices?
- Is there a mechanism to provide personalized discounts based on user behaviour?

## 4. Refund and Cancellation System:

- How can we design a robust system for handling cancellations and refund?
- What policies should be in place to address various cancellation scenarios?
- Are there automated processes for managing refund requests.



## 5. Customer Support and Information Systems:

- How can we enhance the users experience through a user-friendly interface?
- What systems can be implemented for real-time updates on flight information?
- Is there a comprehensive knowledge base for customer support?

## 6. Operational Efficiency:

- How can we optimize ground operations, including baggage handling and check-in processes?
- What technologies can improve the efficiency of boarding and deboarding?
- Are there strategies to reduce the environmental impact of flights?

## 7. Safety and Security Measures:

- How can we improve security measures without compromising passenger experience?
- What systems can be implemented to ensure compliance with aviation regulations?
- How do we handle emergency situations and communicate effectively with passengers.

## 8. Data Analytics and Reporting:

- How can we leverage data analytics to gain insights into user preferences and behaviours?
- What reporting mechanisms can help in monitoring and improving overall system performance?
- Are there predictive analytics tools to anticipate and address potential issues proactively?