DELIVERABLE 2 – USER REQUIREMENTS AND UML DIAGRAMS

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Section A: Requirement's Elicitation Techniques

The success of the Airline Company Booking System depends on accurately gathering and defining system requirements. This process, known as requirements elicitation, involves selecting appropriate techniques to extract relevant information from stakeholders. The methods chosen must ensure that all functional and non-functional requirements are clearly understood and documented, minimizing the risk of miscommunication.

To effectively gather system requirements, the following techniques will be used:

1. **Interviews**
    a. Stakeholders Involved: Airline staff, IT administrators, customer service representatives.
    b. Purpose: Gain direct insights into operational challenges, user expectations, and system limitations.
    c. Value Added: Allows for in-depth discussions and clarification of complex requirements.
2. **Surveys and Questionnaires**
    a. Stakeholders Involved: Customers and frequent flyers.
    b. Purpose: Collect quantitative data on user preferences, pain points, and desired system features.
    c. Value Added: Provides broad feedback from a large number of users in a structured and measurable format.
3. **Observation**
    a. Stakeholders Involved: Booking agents and customer support teams.
    b. Purpose: Analyze how the current system is used in real-time to identify inefficiencies and bottlenecks.
    c. Value Added: Helps in understanding actual user behavior, which may differ from self-reported issues.
4. **Document Analysis**
    a. Stakeholders Involved: Airline management and compliance teams.
    b. Purpose: Review existing booking policies, customer complaint logs, and technical documentation.

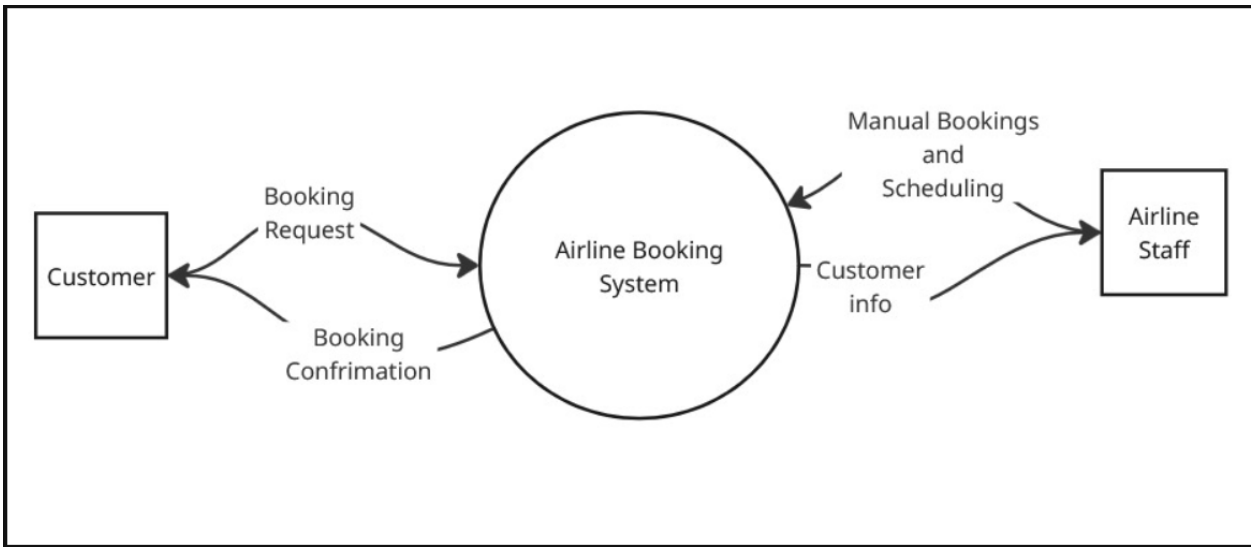
c. Value Added: Ensures that regulatory requirements and operational constraints are incorporated into the new system.

Justification for Selected Methods

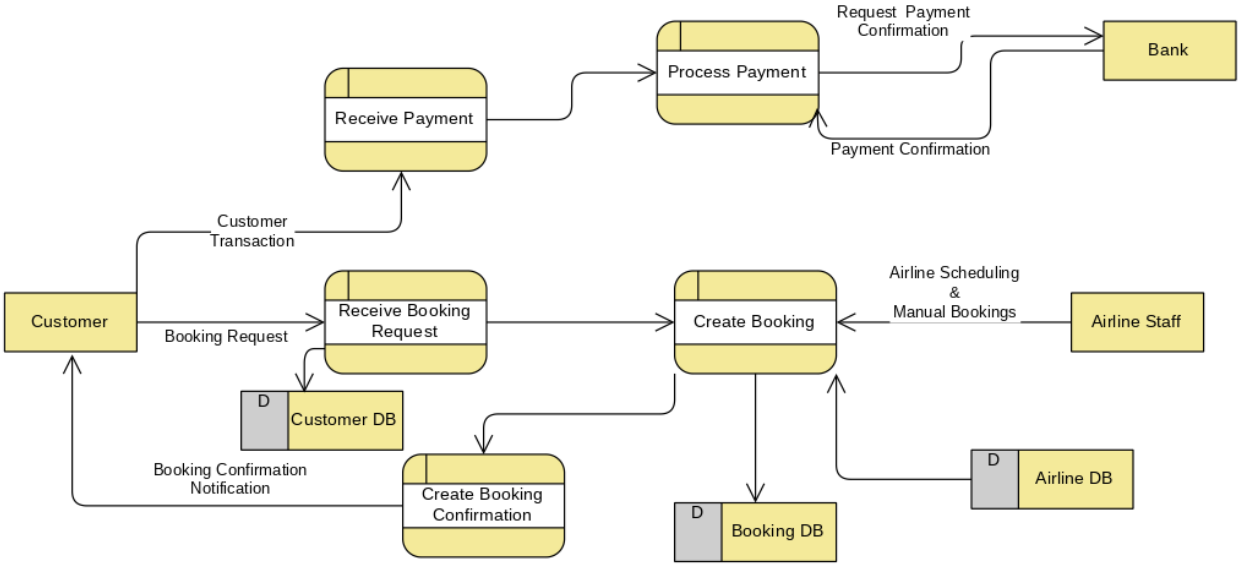
These techniques were chosen based on their ability to provide comprehensive and accurate requirements while considering the diverse needs of stakeholders. Interviews and observations help capture practical challenges, while surveys offer large-scale user feedback. Document analysis ensures compliance with industry regulations, making the requirements elicitation process both effective and reliable

Section B: Data Flow Diagrams

Context Diagram



Level 0 diagram

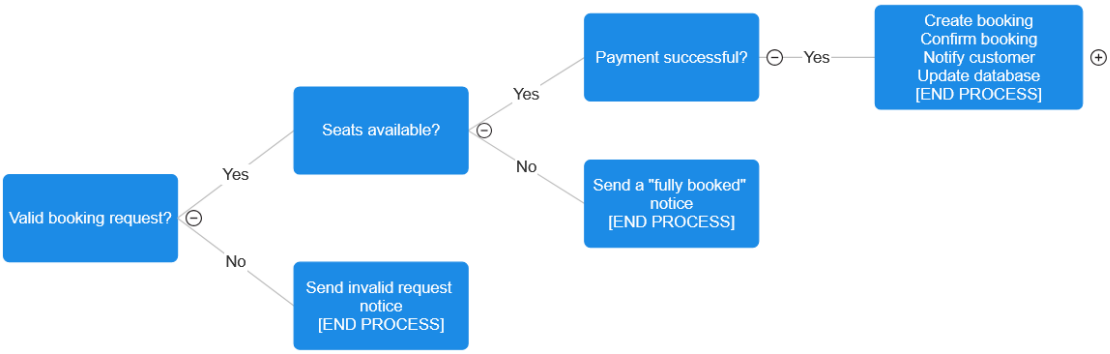


Decision Table

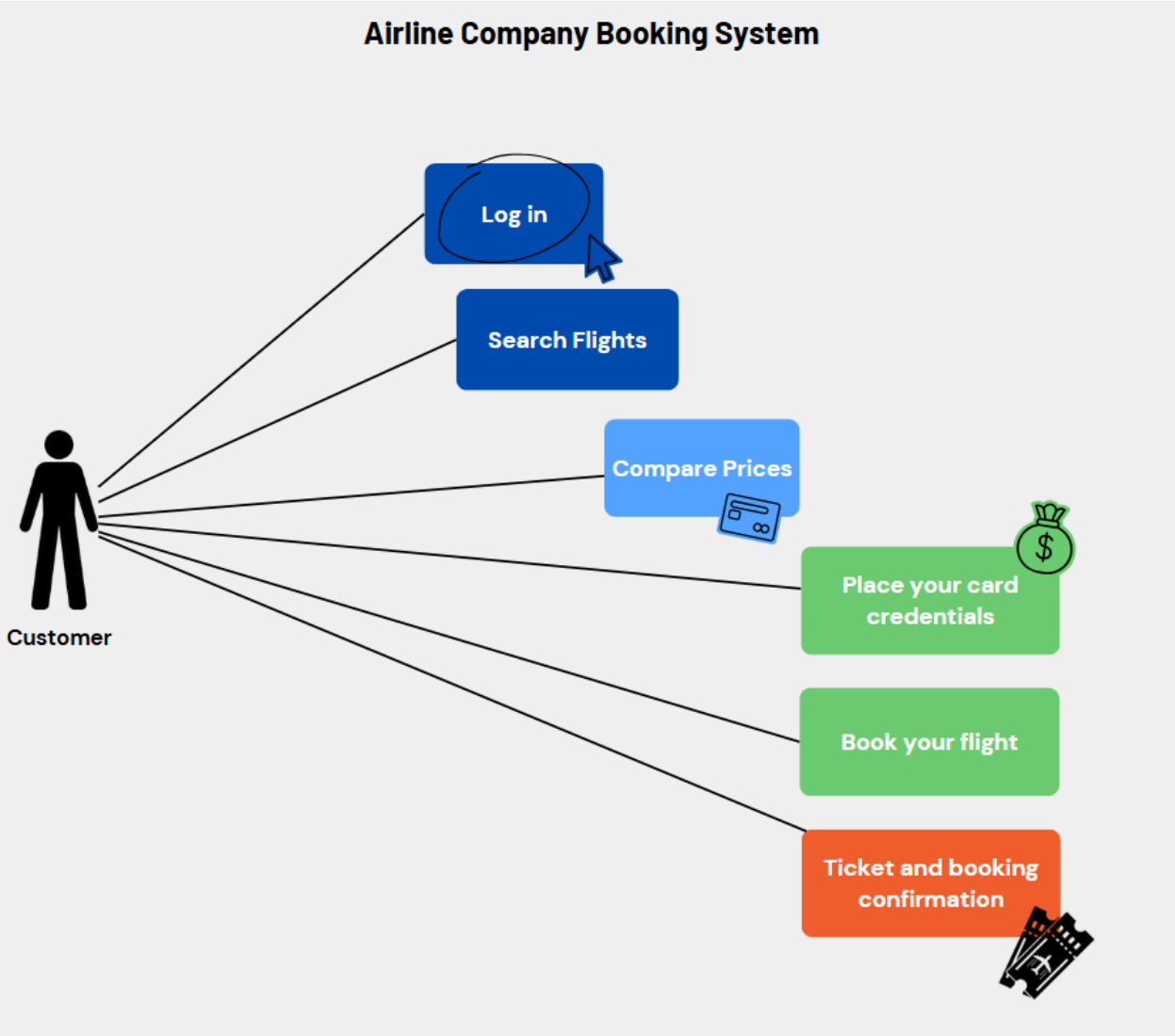
Condition/ Decision	Rule 1	Rule 2	Rule 3	Rule 4
Valid booking request?	Yes	Yes	No	No
Payment successful?	Yes	No	—	—
Seats available?	Yes	Yes	—	—

Actions:				
Create booking	X			
Confirm booking	X			
Notify customer	X	X	X	
Request payment	X			
Process payment	X			
Update booking DB	X			
Reject booking		X	X	X
Send payment failure notice		X		
Send invalid request notice			X	X

Decision Tree



User UML Diagram



Activity UML Diagram