Revenue Optimization Analysis (Airbnb Barcelona)

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Document History

Version	Date	Author	Description
1	15/4/2025	Javier (Revenue Ops Manger)	Initial Agile BRD
2	3/5/2025	Sammy (Head of Revenue)	Refined business goals and scope; added pricing analytics requirements; updated stakeholder roles.
3	29/5/2025	Javier (Revenue Ops Manger)	Final BRD Agile in full context

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1. Introduction

1.1. Current State & Business Challenge

Airbnb's Barcelona operations are experiencing significant booking conversion challenges, with high drop-off rates particularly at the payment step. Revenue Optimization Manager Javier identified critical friction points including pricing uncertainty, lack of booking transparency, and misaligned user expectations throughout the booking journey. Current processes lack real-time availability updates and comprehensive booking history management, resulting in user frustration and lost revenue opportunities.

1.2. Document Purpose

This Business Requirements Document is designed to:

- Define comprehensive business requirements for an optimized booking system specifically for Barcelona properties, addressing identified conversion bottlenecks and user experience gaps
- Establish dual workflow specifications supporting both traditional manual UI interactions and AI-powered agentic processes to accommodate diverse user preferences and enhance scalability
- Provide measurable success criteria and quality standards necessary to ensure the delivered solution meets stakeholder expectations for improved conversion rates, user satisfaction, and operational efficiency
- Document pricing analytics requirements that enable data-driven host decision-making and support revenue optimization strategies across seasonal trends and neighborhood performance variations
- Create traceability framework linking business objectives to technical requirements, ensuring all development efforts directly support identified business goals and user pain points

1.3. Overview

This document serves as the foundational guide for transforming Barcelona's Airbnb booking experience from a friction-heavy process into a streamlined, intelligent system. By leveraging data-driven pricing insights and supporting both manual and AI-powered booking workflows, the project aims to reduce drop-offs, increase user confidence, and maximize revenue potential for both Airbnb and its host community. The requirements captured herein are based on comprehensive data analysis, stakeholder interviews, and workflow prototyping to ensure all business and user needs are addressed

2. Business Objectives

2.1. Project Objectives

- Increase booking conversion rates by reducing friction in the booking process.
- Enable hosts to optimize pricing using data-driven insights.
- Support both manual and Al-powered workflows for flexibility and scalability.
- Improve user satisfaction by addressing pain points around booking transparency and pricing uncertainty.

2.2. Success Criteria

The success of this project will be measured by clear, quantifiable outcomes that reflect both business objectives and user needs. Key success criteria include a demonstrable reduction in booking drop-off rates, particularly at critical stages such as payment and confirmation; an increase in overall booking conversions for Barcelona properties; and positive feedback from both hosts and guests regarding the usability and transparency of the new system.

Additional criteria include the effective adoption of pricing analytics by hosts, as evidenced by improved revenue performance and optimized listing strategies across seasonal and neighborhood trends. Success will also be validated through system reliability, seamless integration of manual and AI-driven workflows, and the ability to trace all delivered features back to documented business requirements and stakeholder priorities.

2.3. In-Scope

- Barcelona properties only (no multi-city support)
- Room search, booking, and cancellation functionality
- Booking history retrieval, filtering, and printing
- Integration of pricing analytics for host decision-making (seasonal trends, neighborhood comparisons)
- Support for both manual (UI-based) and AI-powered (agentic) booking workflows

2.4. Out-of-Scope

Properties outside Barcelona (multi-city or global expansion)

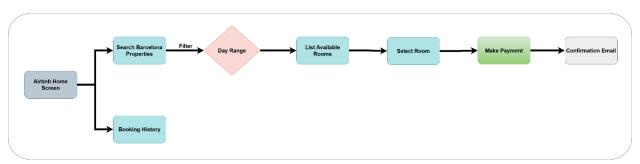
- Payment processing and financial transactions
- Automated email reminders and trust signal features (deprioritized for MVP)
- Features not prioritized in the MoSCoW framework (e.g. advanced marketing automation)

2.5. Limitations

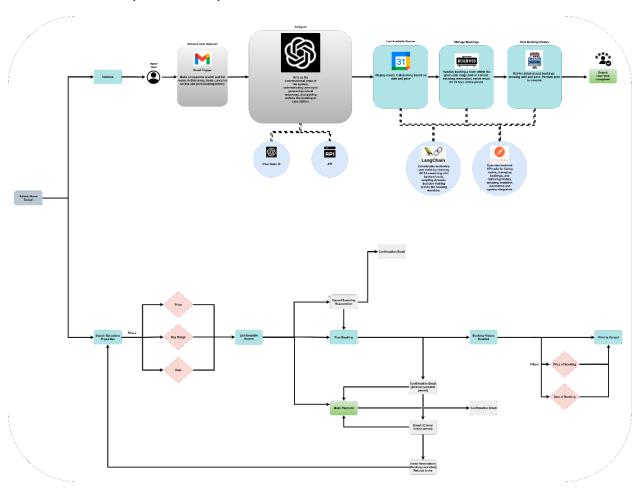
- Payment and financial integrations excluded from MVP delivery
- Resource constraints may affect the rollout of "should-have" and "could-have" features as identified in MoSCoW analysis
- All requirements and features are subject to stakeholder review and iterative refinement as part of the Agile delivery process

3. Business Process Overview

3.1. As-Is Process (Current State)



3.2. To-Be Process (Future State):



4. Stakeholder Requirements

Sponsor & Head of Revenue	Require must-have booking, cancellation, and
	analytics features that directly support
	business KPIs and revenue optimization.
Hosts	Need access to actionable pricing data,
	seasonal and neighborhood insights, and
	streamlined booking management tools.
End Users	Expect frictionless booking, clear and
	transparent pricing, accessible booking
	history, and trust-building features.
Analysts & UX Designers	Require comprehensive data access, clarity in
	workflow design, and robust validation
	mechanisms to support continuous
	improvement.

System Admins	Need operational oversight, clear permission	
	logic, and backend support for both manual	
	and Al-powered workflows.	

4.1. Functional Requirements (User Stories)

- As a user, I want to search available rooms by date and price so I can find suitable accommodations.
- As a user, I want to book a property only if it is available within my selected time range, ensuring no double bookings.
- As a user, I can only reserve a property for a minimum period of one day.
- As a user, I want to easily book or cancel a reservation.
- As a user, I want to view and filter my booking history by date, period of stay, and price.
- As a user, I want to print my booking history for my records.
- As a host, I want to access pricing insights and analytics to optimize my listing strategy and maximize revenue.

4.2. Non-Functional Requirements

- The system must ensure data privacy and comply with GDPR for all user and host information.
- Booking and search operations should return results within 2 seconds under normal load.
- The platform must be available 99.5% of the time, excluding scheduled maintenance.
- The system must support scalability to handle peak seasonal booking volumes.
- User interfaces must be accessible and usable across desktop and mobile devices.
- All actions must be logged for audit and troubleshooting purposes.
- The Al-powered workflow must provide clear, user-friendly feedback and error messages

5. Approvers & Sign-off

Name	Role	Signature	Date
Sammy Smith	Head of Revenue	х	1/6/25
John Jones	Sponsor	х	2/6/25

6. Glossary

• **BRD:** Business Requirement Document

• **MoSCoW:** Must-have, Should-have, Could-have, Won't-have prioritization.

• Agentic Workflow: Al-driven process using tools like GPT-4 and LangChain.

• Manual Workflow: Traditional UI-based user journey.

• **Power–Interest Grid:** Stakeholder mapping framework.

7. Appendix

- Visuals & Workflow diagrams
- Data Scripts
- <u>Tableau dashboard</u>
- <u>GitHub Repository</u>