Airbnb

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Overview

Airbnb, Inc. is an online marketplace for arranging or offering lodgings, primarily homestays, or tourism experiences. Our company does not own any of the real estate listings, nor does it host events; it acts as a broker, receiving commissions from each booking.

Mission Statement

Airbnb aspires to “create a world where anyone can belong anywhere” and it is two-fold: allowing anyone to enjoy their travel with respect to where they stay, what they do, and who they meet; empower people around the world to be entrepreneurs with the freedom to utilize their space, passions, and talents.

Origin

This idea originated in 2007 when the founders wanted to make a bit of extra money to cover their rent. The pair knew that a big design conference was coming to San Francisco, and it was making hotels hard to come by. They thought what if they made turned their loft into a designer's bed and breakfast, complete with a sleeping mat and breakfast? It was a way to "make a few bucks."

Current Functioning

Currently, Airbnb is $2.6 billion peer-to-peer platform, where listings are put up, not by businesses, but by individuals. The platform allows users who own apartments, houses, bungalows etc. to reach the tourism industry, which was not possible before the advent of Airbnb. It also allows tourists to stay in a homestay which can be much more affordable than a hotel or resort.

Competitors

Airbnb’s major competitors are similar booking websites like: Tripping.com which is a leading search engine for vacation rentals. Right now, Tripping.com has over 8 million properties in

150,000 destinations. And in addition, there are traditional hotel booking companies like TripAdvisor.com and Booking.com.

Value Proposition

Customer Pain Points

For travelers:

1. Want cheaper alternatives to hotels and interact with hosts who share similar interests.
2. Find an alternative place to stay when hotels are all booked in a specific time frame.
3. Want a unique experience and interact with local people.
4. Distrust of hosts. Not sure if the host would ensure a safe and comfortable stay.

For hosts:

1. Have houses vacant in a specific time frame and aren't generating revenue.
2. Renting out houses with long-term leases do not generate not enough revenue.
3. Distrust of tenants. Not sure if the tenant would behave properly / cause damage to the property.

Business Model

Airbnb is a community-based, two-sided online platform that facilitates the process of booking private living spaces for travelers. On one end, it enables owners to list their space and earn rental money. On the other end, it provides travelers easy access to renting private homes. With over 1,500,000 listings in 34,000 cities and 190 countries, its wide coverage enables travelers to rent private homes all over the world. Personal profiles, as well as a rating and reviewing system, provide information about the host and what is on offer. Vice versa, hosts can choose on their own who to rent out their space to. (“Airbnb Business Model.” *Business Model Toolbox*, https://bmtoolbox.net/stories/airbnb/.)

Unlike hotels or resorts, Airbnb does not need to accumulate real estate or franchise the brand to expand its business. Users who want to rent out their properties can freely list their properties which allows Airbnb to expand their business at an exponential rate.

Functioning

Airbnb operates as a transaction facilitator between hosts and travelers who are looking for comfortable accommodations at a cheap price. By providing host protection insurance, as well

as a rating and review system, the platform builds trust within the community of users and lowers transaction costs. Profiles and user reviews help to create reputation and trust among participants in the marketplace.

Revenue Model

Airbnb receives commissions from two sources upon every booking, namely from the hosts and guests. For every booking, Airbnb charges the guest 6-12% of the booking fee. Additionally, Airbnb charges the host 3% for every successful transaction. (“Airbnb Business Model.” *Business Model Toolbox*, https://bmtoolbox.net/stories/airbnb/.)

User Stories

Consumer - Individuals who want to make a booking for a room/home/hotel etc. or an experience.

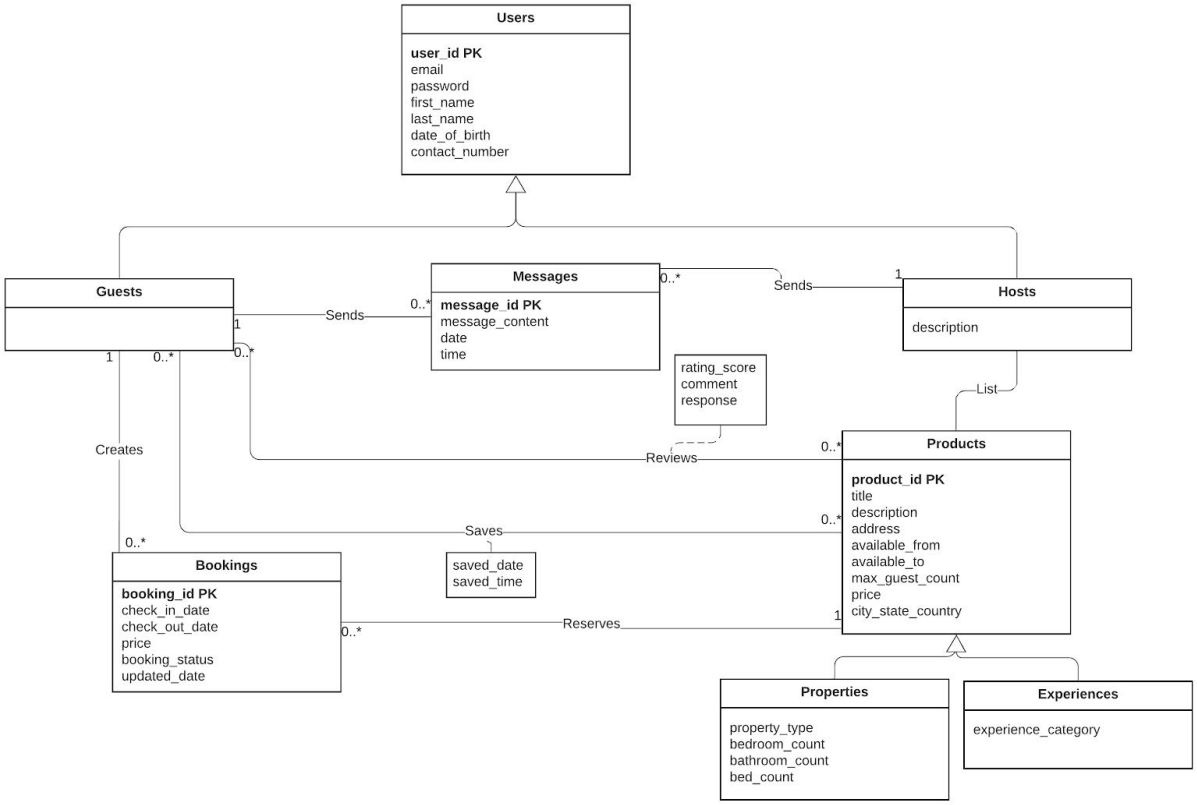
Property Host - Businesses or individuals who host visitors in their room/home/hotel.

Experience Host - Individuals who host experiences such as tours/tastings/hikes etc.

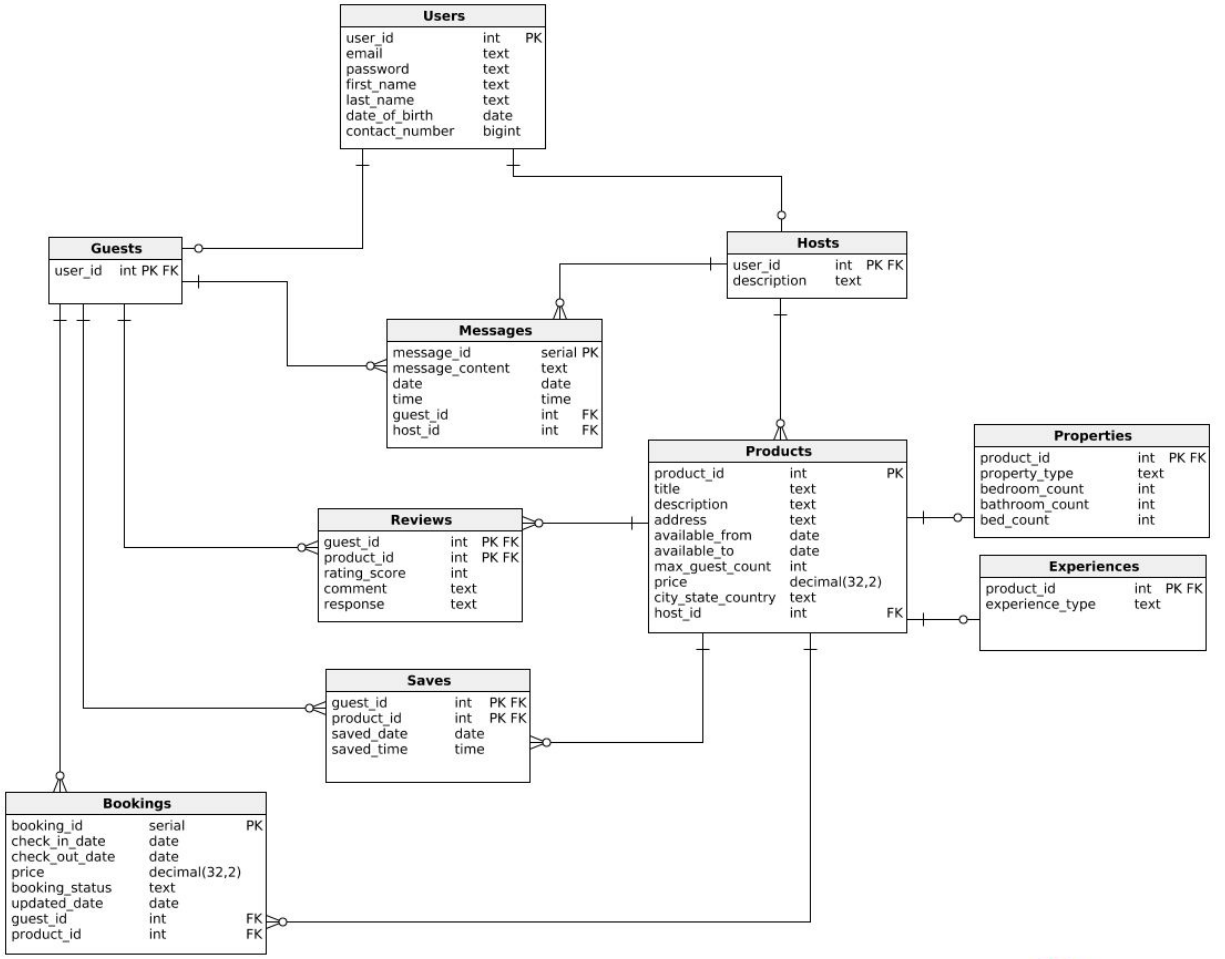
ID	**Simple / Complex / Analytical**	**As a <role>**	**I want <goal>**	**So that <reason>**
US1	Complex	Consumer	To read about my the host I am intending to stay with it	I can align my interests with the interests of the host
US2	Simple	Consumer	To specify the location of my intended booking	I can look at available properties and experiences in that location
US3	Simple	Consumer	To specify the date range of my intended booking	I can look at properties and experiences available on those dates
US4	Analytical/Complex	Consumer	To sort properties and experiences based on average rating	I can look at the best properties and experiences first
US5	Analytical/Simple	Property Host	To look at the average price of Airbnb properties and experiences around my location	I can gauge the market demand and price my property or experience accordingly
US6	Simple	Property Host	To update the date range of when my product is available	I can change the dates that I provide services/accommodation
US7	Simple	Experience Host	Send messages to my clients	I can communicate a time to meet and place to meet

US8 (new feature)	Analytical/Complex	Experience Host	Get the top 3 most booked experience in all experiences	I can see my competitor's offering
US9	Simple	Consumer	Save the locations I am interested in	To view places I was interested in
US10	Complex	Consumer	View previously booked properties	To rebook them or recommend them to a friend

Conceptual Model



Physical Model



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Relational Model

Primary Key
Foreign Key

Users(**user_id**, email, password, first_name, last_name, date_of_birth, contact_number)
Guests(**user_id**)
Hosts**(user_id**, description)
Products (**product_id,** title, description, address, available_from, available_to, max_guest_count, price, city_state_country, host_id)
Messages(**message_id,** message_content, date, time, guest_id, host_id)
Reviews(**guest_id, product_id**, rating_score, comment, response)
Saves(**guest_id, product_id,** saved_date,saved_time)
Bookings(**booking_id**, check_in_date, check_out_date, price,booking_status, updated_date,guest_id, product_id)
Properties(**product_id,** property_type, bedroom_count, bathroom_count, bed_count)
Experiences(**product_id**, experience_category)

Functional Dependencies

Users(**user_id**, email, password, first_name, last_name, date_of_birth, contact_number)
user_id -> user_id, email, password, first_name, last_name, date_of_birth, contact_number

Guests(**user_id**)
user_id -> user_id

Hosts**(user_id**, description)
user_id -> user_id, description

Products (**product_id,** title, description, address, available_from, available_to, max_guest_count, price, city_state_country, host_id)
product_id -> title, description, address, available_from, available_to, max_guest_count, price, city_state_country, host_id

Messages(**message_id,** message_content, date, time, guest_id, host_id)
message_id -> message_content, date, time, guest_id, host_id

Reviews(**guest_id, product_id**, rating_score, comment, response)
(guest_id, product_id) -> rating_score, comment, response

Saves(**guest_id, product_id,** saved_date,saved_time)
(guest_id, product_id) -> saved_date,saved_time

Bookings(**booking_id**, check_in_date, check_out_date, price,booking_status, updated_date,guest_id, product_id)
booking_id -> check_in_date, check_out_date, price, booking_status, updated_date, guest_id, product_id

Properties(**product_id,** property_type, bedroom_count, bathroom_count, bed_count)
product_id -> property_type, bedroom_count, bathroom_count, bed_count

Experiences(**product_id**, experience_category)
product_id -> experience_category

All the functional dependencies are in BCNF.

Normalization

Users(**user_id**, email, password, first_name, last_name, date_of_birth, contact_number)
This is in BCNF because user_id determines all the other fields and there are no bad functional dependencies (and also no transitive dependency, no partial dependency and is atomic).

Guests(**user_id**)
This is in BCNF because user_id determines itself and there are no bad functional dependencies (and also no transitive dependency, no partial dependency and is atomic).

Hosts**(user_id**, description)
This is in BCNF because user_id determines all the other fields and there are no bad functional dependencies (and also no transitive dependency, no partial dependency and is atomic).

Products (**product_id,** title, description, address, available_from, available_to, max_guest_count, price, city_state_country, host_id)
This is in BCNF because product_id determines all the other fields and there are no bad functional dependencies (and also no transitive dependency, no partial dependency and is atomic).

Messages(**message_id,** message_content, date, time, guest_id, host_id,)
This is in BCNF because message_id determines all the other fields and there are no bad functional dependencies (and also no transitive dependency, no partial dependency and is atomic).

Reviews(**guest_id, product_id**, rating_score, comment, response)
This is in BCNF because guest_id and product_id determine all the other fields and there are no bad functional dependencies (and also no transitive dependency, no partial dependency and is atomic).

Saves(**guest_id, product_id,** saved_date,saved_time)
This is in BCNF because guest_id and product_id determine all the other fields and there are no bad functional dependencies (and also no transitive dependency, no partial dependency and is atomic).

Bookings(**booking_id**, check_in_date, check_out_date, price,booking_status, updated_date,guest_id, product_id)
This is in BCNF because booking_id determines all the other fields and there are no bad functional dependencies (and also no transitive dependency, no partial dependency and is atomic).

Properties(**product_id,** property_type, bedroom_count, bathroom_count, bed_count)
This is in BCNF because product_id determines all the other fields and there are no bad functional dependencies (and also no transitive dependency, no partial dependency and is atomic).

Experiences(**product_id**, experience_category)
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