Google Maps for Work

99Taxis helps riders in Brazil book taxis using Google Maps APIs

At a Glance

What they wanted to do

- Develop a service that allows riders to book taxis from their mobile phones
- Create maps for Android and iOS apps that make it easy for riders and taxi drivers to find one another

What they did

- Used the Google Maps Geocoding API to pin customer locations on a map and show customers all the available taxis in their vicinity
- Calculated the best route for taxis drivers to get to riders, using the Google Maps Directions API
- Used the Google Maps Distance Matrix API to show riders how long it will take for their taxis to pick them up

What they accomplished

- Booked more than three million rides per month
- Recruited more than 140,000 taxi drivers to participate in the service
- Racked up more than 7 million downloads of the iOS and Android apps combined

Background

99Taxis, an on-demand taxi service based in Sao Paulo, Brazil, lets customers book rides from independent taxi drivers and then pay for the trips. Riders use Android or iPhone apps to pinpoint their locations, see available nearby taxis, and choose one to book a ride.

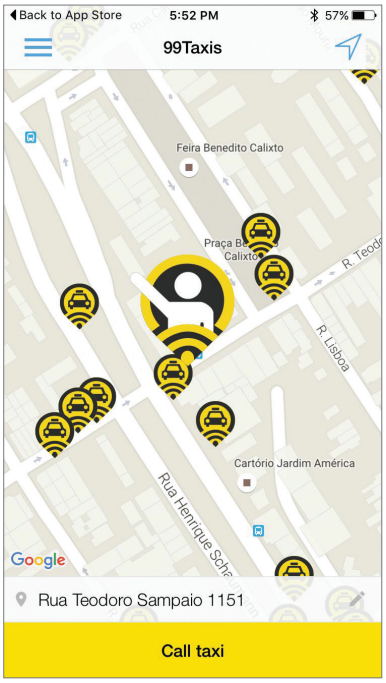
Challenge

99Taxis wanted to work with self-employed taxi drivers in Brazil by creating a service that would help riders find them using a smartphone app. The service would help both customers and drivers – it would cut down on customer wait time for taxis, and drivers could book rides with them more easily.

Unlike many other ride-hailing apps, 99Taxis helps people find rides with drivers who are registered and regulated as taxi drivers. Customers pay for their rides using credit card, PayPal or cash. 99Taxis receives a percentage of the credit card and PayPal payments, but does not receive any money from fares paid in cash.

“We set out to solve several problems for taxi users,” says company co-founder Renato Freitas. “We wanted to eliminate the long waits people sometimes have to endure in taxi lines, and to get taxis to people more quickly than if they make phone calls for them. We also wanted customers to see the taxi’s progress, to know when the cab will be arriving.”

99Taxis chose **Google Maps** and **Google Maps APIs** to build its Android app, which it launched before creating one for iOS. A big draw was the familiarity that customers had with Google Maps and its controls. The accuracy and comprehensiveness of maps were also important factors, Freitas says, because 99Taxis is available throughout Brazil, a sprawling country (the fifth largest in the world).



99Taxis initially chose to use Apple Maps when it began development of its iOS app, simply because it was the default service for Apple devices. However, the company quickly switched to Google Maps as a better fit.

“Standardizing on Google Maps was a great move for us,“ Freitas says. “We needed a way to improve the whole user experience.”

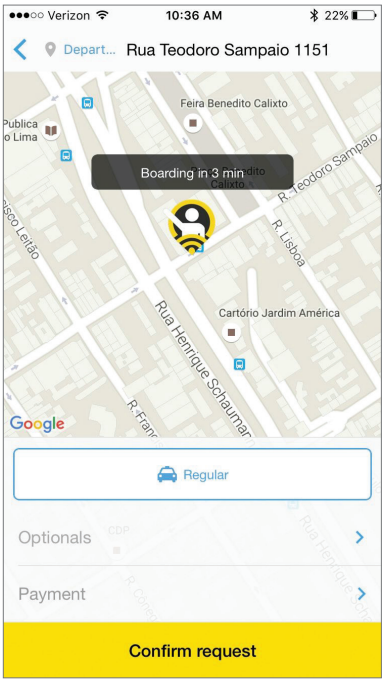
About Google Maps for Work

Google Maps APIs for Work makes it easy for companies to include fully interactive Google Maps on their public and internal websites. The Maps API helps your customers and employees make the right business and purchasing decisions by visualising important information on a familiar map.

For more information, visit
www.google.com/work/mapsearth/

Solution

The main interface for both the iOS and Android 99Taxis apps is a Google Map, built using the Map Object in the **Google Maps Android API** and **Google Maps SDK for iOS**. When users launch the app, their phone's GPS detects their location, shows them locations of all nearby taxis on the map, and displays taxi locations as they drive. Users can zoom in and out and navigate around the map using familiar Google Maps controls.



Users can also type in their address, and the reverse geocoding feature of the **Google Maps Geocoding API** will pin their locations on the map. The API also translates their physical location into an address.

When users wants to book ride, they tap "Call Taxi." A screen appears that lets users add additional options for the ride, including whether they need a taxi with a large trunk, bike rack and similar features. The screen also shows how long it will take for a cab to arrive. To perform that calculation, the app uses the **Google Maps Distance Matrix API**.

Users click "Confirm Request" to book the ride. The rider's location information is then sent to a nearby taxi driver who uses the driver's version of the app, and drives to pick up the user. The **Google Maps Directions API** calculates the best routes for drivers to take. Passengers can view the progress of the taxi live on the Google Map.

Benefits

Freitas says that Google Maps and its APIs have played a considerable role in 99Taxi's success since its August 2012 launch.

"Our iOS and Android apps have been downloaded more than 7 million times combined and our service has become popular throughout Brazil," he says. "A big reason is the familiar Google Maps interface – people don't spend any time learning how to use the app. The APIs, which display locations and help drivers get to their passengers faster, have also been important for us."

Freitas also emphasizes the ease with which the Google Maps APIs allow programmers to add new features and tweak existing ones. This improves developer productivity, saves time, and helps the company bring new features to market quicker.

Using Google Maps, 99Taxis has seen a dramatic upswing in the number of rides taken and taxi drivers who have signed up for the service – more than three million rides are booked a month, and more than 140,000 taxi drivers are registered with 99Taxis. Freitas expects those numbers to keep increasing.

"We have a great challenge in Brazil for people to get to know our app, understand its advantages and include it in their day-to-day lives," he concludes. "Having Google Maps as a partner has helped us to make sure all users have the best experience."

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