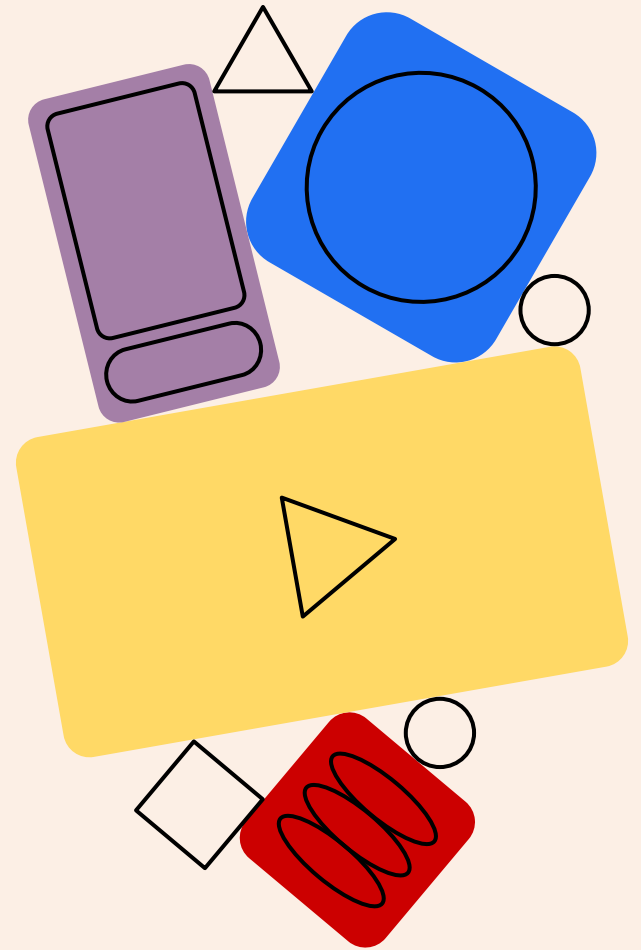


A Business idea for
Netcompany
Hackathon 2025

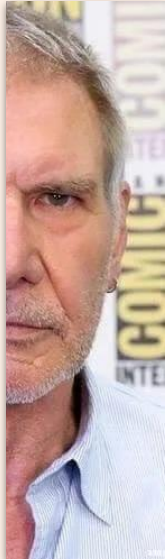
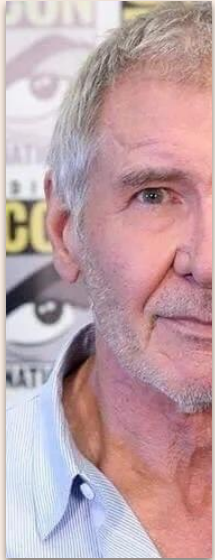
Parkathon

'Cause finding to park can be a sprint and not a marathon



The Problem

PARKING SPOT TRASH CAN



Parkathon is a web application that aims to reduce parking congestion in Thessaloniki, with the potential to expand to other densely populated cities.

- Locates nearby parking spots to your destination
- Utilizes historic data from a database
- Predicts their probability of being free

Finding a parking slot in Thessaloniki is a hassle. Failing to park in a timely manner leads to:

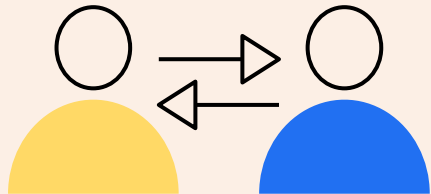
- Fuel Consumption
- Time Waste
- Increased Traffic
- Anger and frustration



Proposed Solution

Parkathon offers an asynchronous communication method for cars by means of a database and machine learning.

Thinking of a parking spot as a resource, the aim is to maximize utilization.

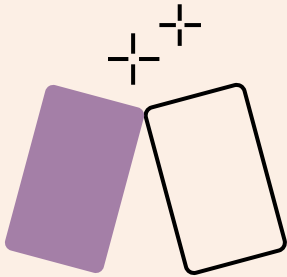


Users asynchronously communicate via a database.
Having data is better than arbitrarily searching!

$$\text{USAGE} = \frac{\text{TOTAL TIME} - \text{EMPTY TIME}}{\text{TOTAL TIME}}$$

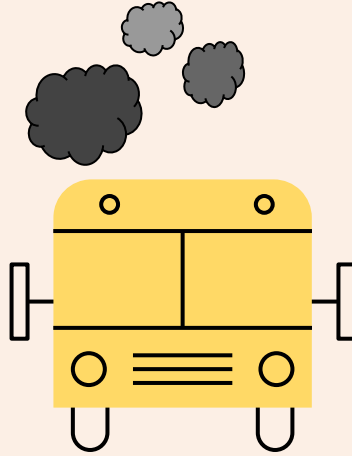
Every time frame parking spot remains untapped parking congestion worsens, as it means more cars are on the road!

Features & Perks



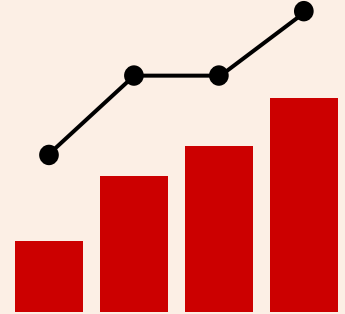
Ease of Use

Intuitive UI, no expertise required



Traffic Alleviation

Less time on the road equals less fuel consumption and less emotional distress

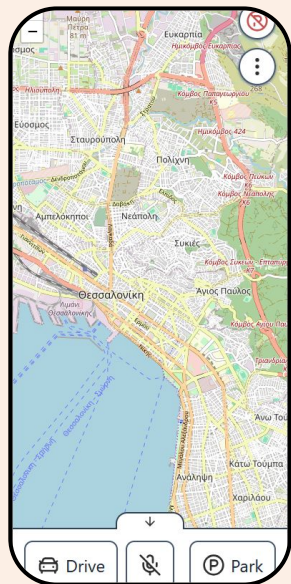


Statistics

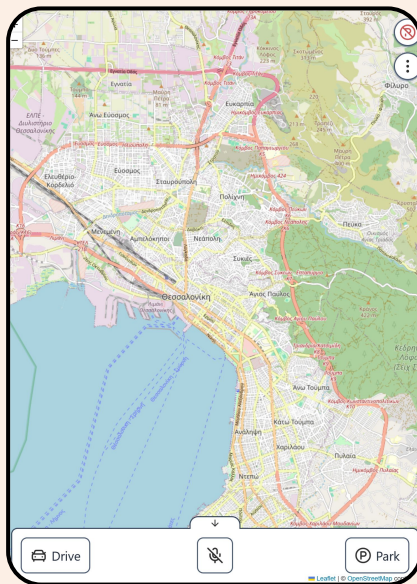
Increased parking rates, decreased searching time

View on different devices

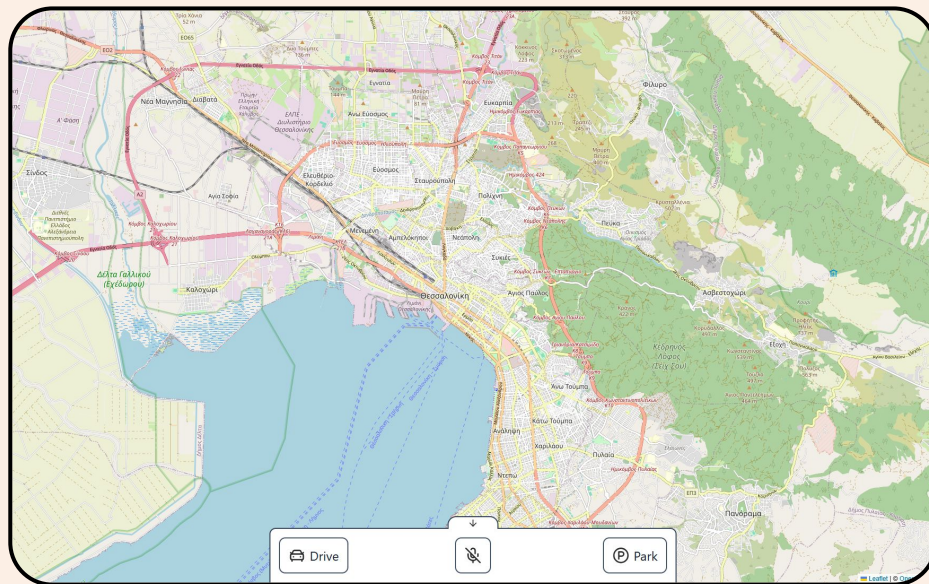
Phone



Tablet



Desktop





How to use


First, the user logs in.

User privacy and security are ensured by securely *hashing* passwords and protecting session cookies through secure *tokens*.

Sign Up

 Name


 Email


 Password

Sign Up

Log In

Login

 Email

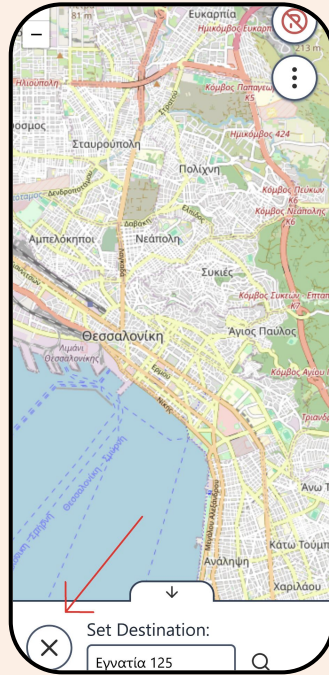
 Password

Sign Up

Log In

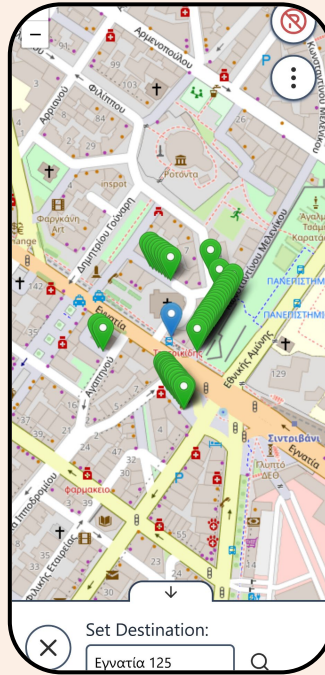
Step 1

Set your destination.



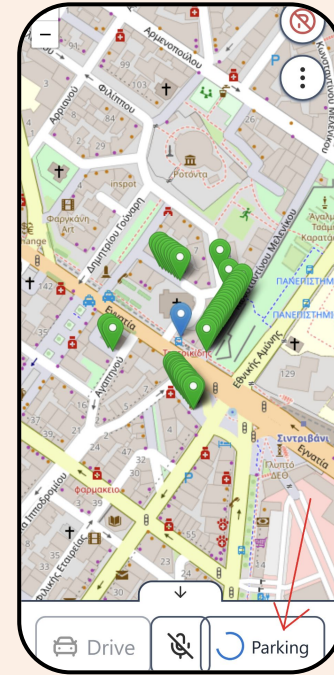
Step 2

Receive parking recommendations.

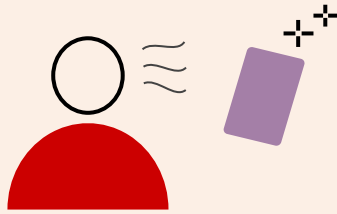


Step 3

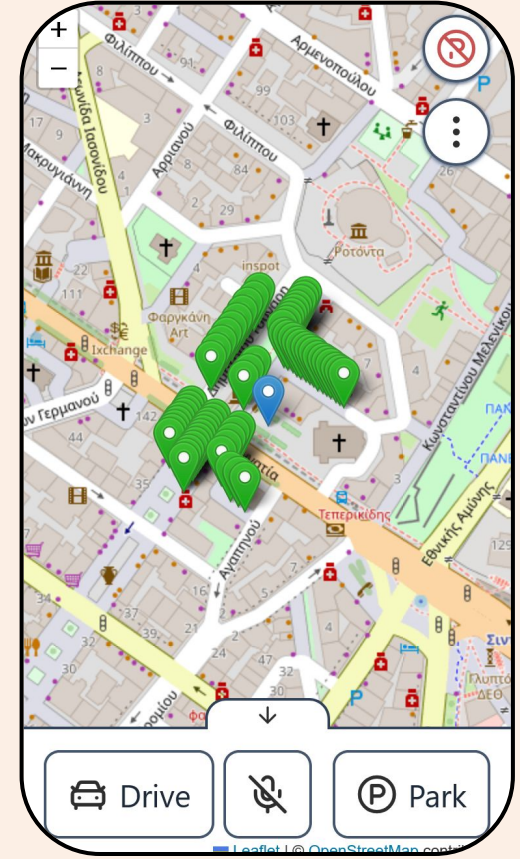
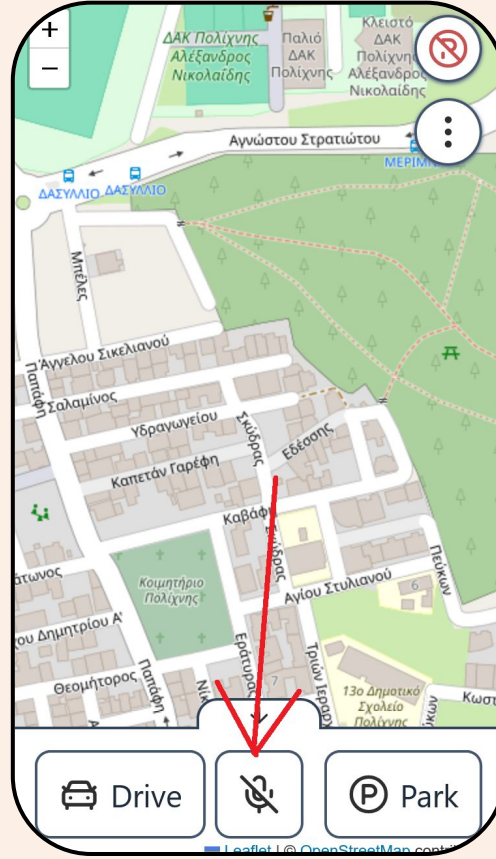
Park and let the app know!



Safety



Use voice commands to set your destination to ensure safety while driving!



Monetization

Business model/ Potential Clients

Automobile Industries:

An attractive feature that lines up with the eminent shift to the electric car.

The State:

Municipalities that wish to better citizen quality of life and discourage parking lawlessness.

Individuals:

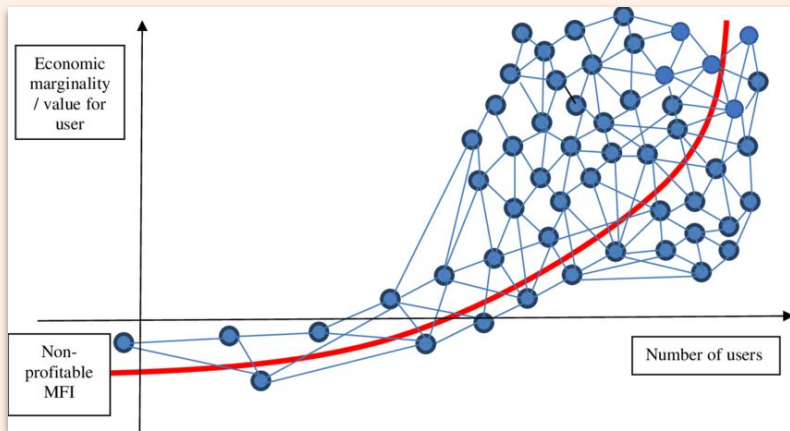
More economic than renting parking space or a spotify subscription to listen to music while searching for parking.

<https://www.youtube.com/watch?v=Og1hgVYs5zg>

Cross-Sector Applicability

- **Private Sector:** Car manufacturers can integrate this app as an attractive feature to ease parking struggles.
- **Public Sector:** Reduced traffic congestion from fewer drivers searching for parking. Governments could subsidize the integration of such systems in vehicles to improve traffic flow, minimize road wear and reduce noise pollution.
- **Individual:** Lower fuel consumption (eco-friendly!), time savings and reduced stress from parking difficulties.

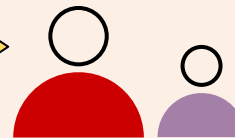
Scaling & Expanding



Metcalfe's law: the financial value or influence of a network is proportional to the square of the number of connected users of the system (n^2)

- **Scale:** More users lead to more accurate data. More financially viable as it grows.
- **Expansion:** Successful implementation in Central Macedonia, could pave the way for global deployment –acting locally, thinking globally.
- **Automation:** Integrating the app with in-car systems (e.g. detecting engine shutdown) could eliminate the need for manual input.
- **Futureproof:** As electric vehicles become the norm, an embedded system will become even more viable. It would also work great with weight detector parking spots, for a modernized city.

This app finds you parking spots!

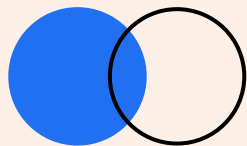


Awesome! I'll try it too!

Recap



Hitting “park”



The frontend makes a call to the backend with the user's destination and other data like the time, the weather etc.

Predicting availability

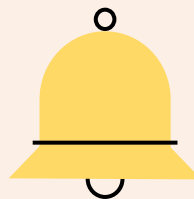


The app uses historic data to predict if this spot will be available given the time, the weather etc.



Identifying candidate spots

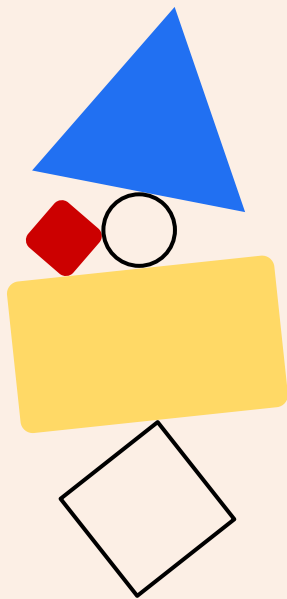
Given your current position, the app identifies nearby available parking spots.



Output

Color coded pins pop up on the map for representing nearby spots and their availability (green high chance, red low chance)

FAQ & Troubleshooting



➤ Are the data real?

Answer: Yes, the data are real, but sparse, since this is a prototype and more time is needed to set an adequate database.

➤ Are the predictions accurate?

Answer: As the app grows and gains more users the database gets populated and the predictions become increasingly accurate.

➤ What if there are no nearby parking spots?

Answer: The user is prompted accordingly, there may be a need to compromise.

Thanks for your attention!

Developed By **Killswitch:**

- ★ Bakoulas Epameinondas
- ★ Bokis Dimitris
- ★ Charisi Maria
- ★ Michalainas Ioannis

Sources:

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- https://en.wikipedia.org/wiki/Metcalfe%27s_law