



- Manolas Dimitrios
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1. Summary

The word “tourism” originally derives from the Greek word “tornos”, which means “lathe”, the well known rotational machine used to shape different materials. An indispensable element of the lathe is rotation, thanks to which objects take shape and form. Likewise, an indispensable element of tourism is wandering and exploration, through which personalities are shaped and people with broader horizons are created.

An especially beneficial effect of tourism is maximized through the experience of wandering and through the exploration of different “secrets” of a city that most likely only the locals would know. Moreover, Greece offers a multitude of opportunities for wandering, and the city of Thessaloniki constitutes an excellent example of a destination that cannot be fully appreciated following only stereotypical tourist advice.

Trying to provide the possibility of real exploration of a city and of exploitation of any knowledge that local inhabitants might want to share, we were led to the development of Lark: a lively platform of interaction and touristic exploration, fitting to the multidimensional nature of the city of Thessaloniki.

Lark consists of a web application, accessible from PC, tablet, mobile phone, and any device that provides the ability to browse the web. Lark lets users search for points of interest and visualize them on a map. More importantly, it is able to create and propose automatic customized tours among different points of interest, that match the user’s preferences. Lastly, it gives users the possibility to create and upload extra content, enriching thus the available information for a given point, or to add new points.

2. The Idea

Tourism is an object with double meaning.

The beneficial effect on the tourist is beyond dispute. Studies have shown the significance of tourism for the education and cultivation of young people, and also the benefits on the health of the travelers (stress and likelihood of cardiovascular diseases reduction).

3. The Team

Lark's development was accomplished by under-graduate and graduate students of Aristotle University of Thessaloniki, with the guidance of Professor Nikos Pitsianis.

We have been collaborating as a team for the past two and half years, trying to solve problems and create innovative applications.

Projects

- Cosmote Neuronod
- Apps4thessaloniki PRISMA
- Hackathon Aeneas

Members

- Manolas Dimitrios
- Mylonakis Kostas
- Mpontomitsidis Spyridon
- Pitsianis Nikolaos
- Floros Dimitrios

4. Lark Application

Lark is a web application, accessible through PC, tablet, mobile (Android - iOS), or any other device with the capability to access a browser. This choice was made to speed up the development of the application, but also to enable a global use of the application and to simplify it.

The basic functionality can be divided into four section: the home page, the suggested tour, the explore and search, and the content display sections.

Home Page

When visiting the application, a user sees the home page. Here, there are two options. Create a suggested tour (using the button "Tour Me") or search for a place ("Landmark Search").

To create a tour, the user need to choose his tour style, the number of person and the available time. By clicking "Tour me", the user is navigated to the suggested tour page.

Otherwise, the user can search for a specific landmark through the "Landmark Search" option.

ESCAPADES AWAIT

Explore, discover, experience.

Tour style
Choose your tour style ▾

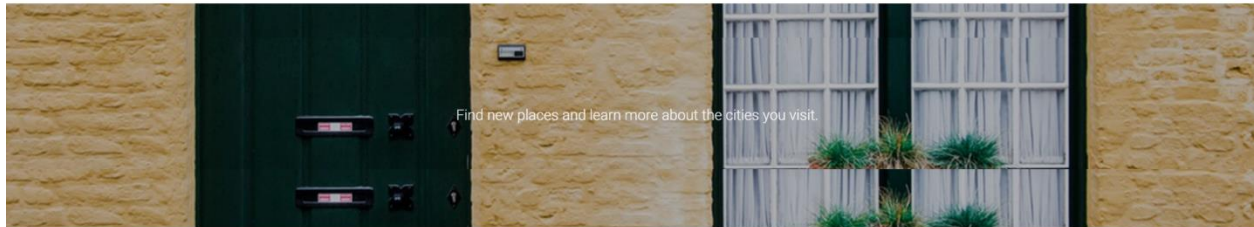
People
Choose your option ▾

Available time
60 minutes 150 minutes

TOUR ME ▶

Landmark search

Search for a place or category ▾



Find new places and learn more about the cities you visit.



Be efficient

Make the most of your time and find the best places to visit within your time window.



Make it yours

Find places and tours that correspond to your criteria and likings. Narrow them down by selecting desired styles and categories.



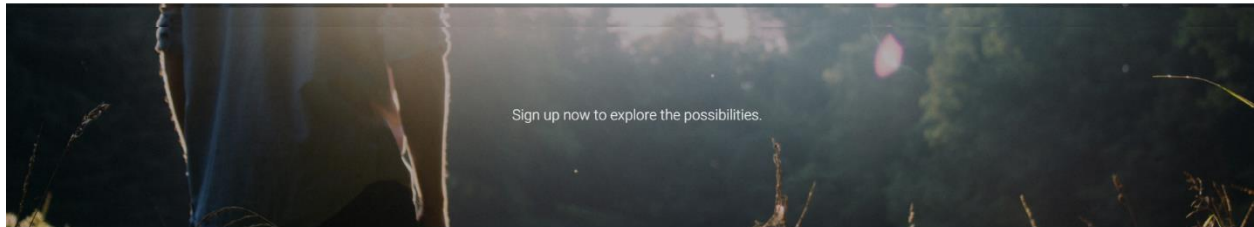
Explore more

Access content created by locals and get "insider tips" about a city.



Promote your city

Add content for others to discover. Take it a step further and even add new places that you think are worth visiting.



Sign up now to explore the possibilities.

Lark

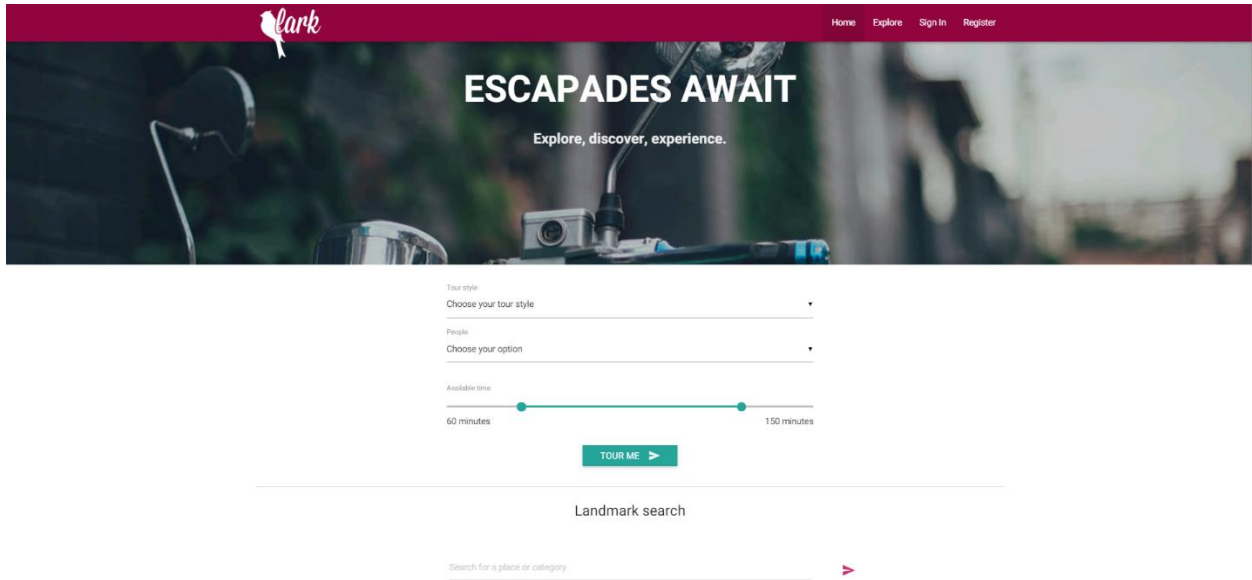
- (noun) - a small ground-dwelling songbird.
- (noun) - an amusing adventure or escapade.
- (verb) - to enjoy oneself by behaving in a playful and mischievous way.
- (noun) - a smart, tourism-oriented application.

Made by Meerkat

Connect

- Facebook Page
- API
- Apps 4 Thessaloniki

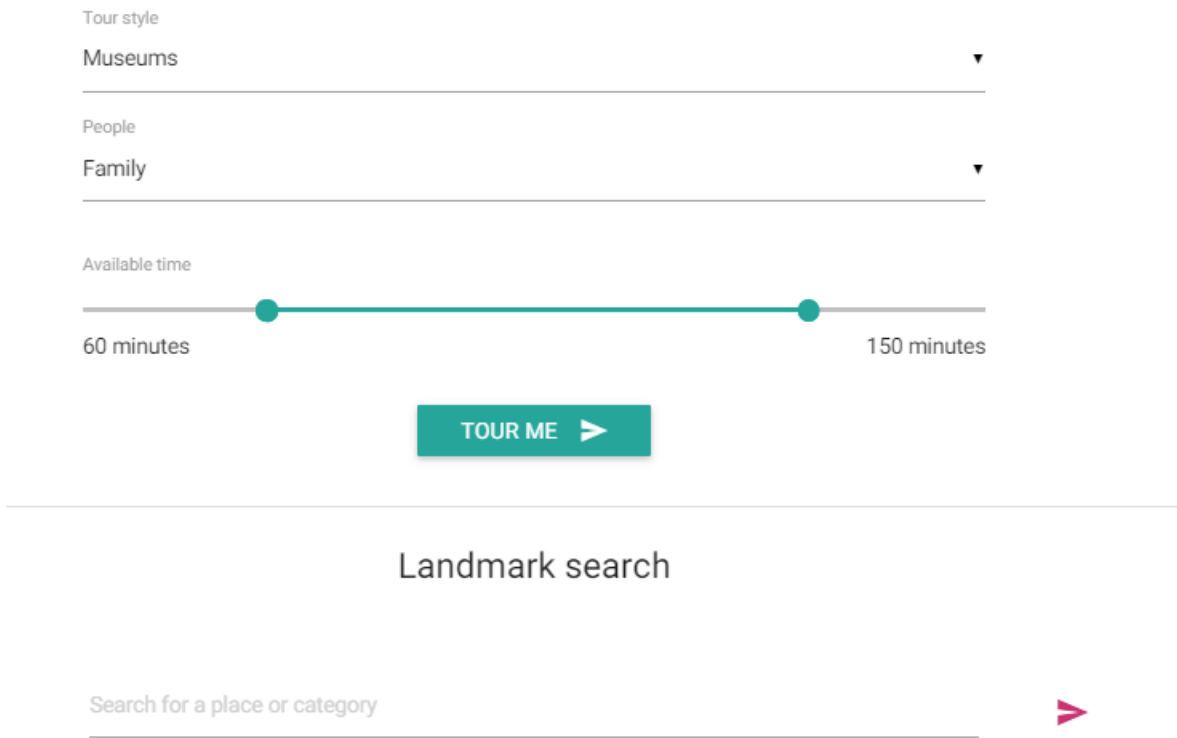




Suggested Tour

When the user is navigated to this screen, a tour is automatically created, using landmarks specific for his tour style. The user can see a list of the places in this tour, as well as their corresponding position on the map.

By clicking the blue navigation button in down right corner the user is transitioned to Google Maps page, in order to navigate the tour that LARK has created (the order of the places is specified by us).



lark Home Explore Kostas

Tour style: Museums

People: Family

Available time: 60 minutes to 150 minutes

TOUR ME

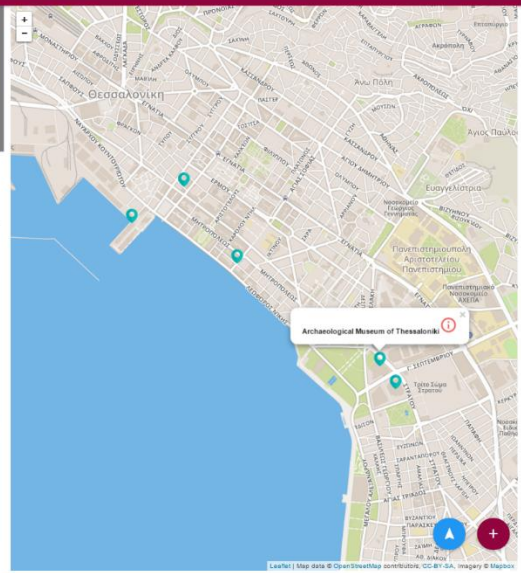
1. Archaeological Museum of Thessaloniki

Notable exhibits
★★★★★
Wikipedia.org
FREE ✓

Gallery
★★★★★
Wikipedia.org
FREE ✓

The building and the exhibitions
★★★★★
Wikipedia.org
FREE

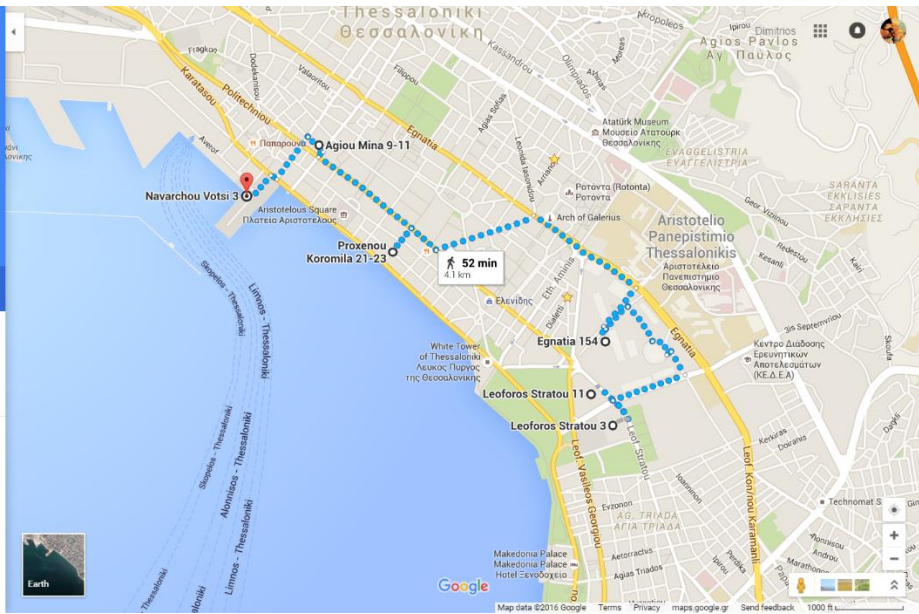
New Content
Add a new content for this place.
ADD



- Leoforos Stratou 11, Thessaloniki 546 27
- Leoforos Stratou 3, Thessaloniki 546 30
- Egnatia 154, Thessaloniki 546 36, Greece
- Proxenou Koromila 21-23, Thessaloniki
- Agiou Mina 9-11, Thessaloniki 546 24, Greece
- Navarchou Votsi 3, Thessaloniki 546 25

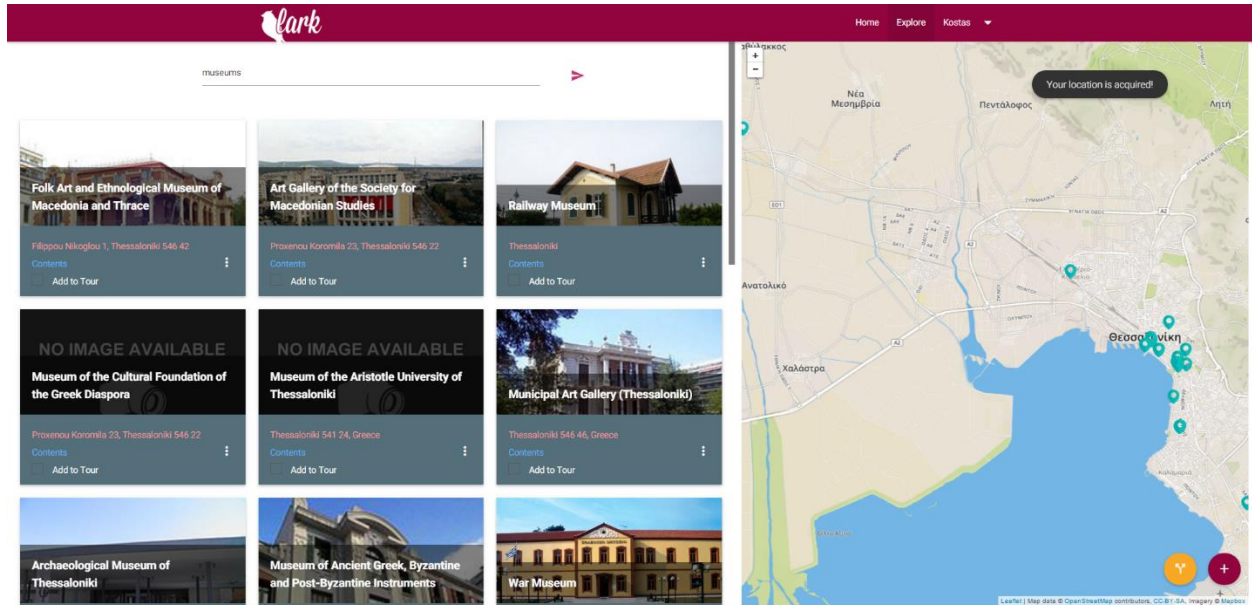
OPTIONS

via Leof. Stratou 52 min
4.1 km
This route has restricted usage or private roads.
DETAILS



Search and explore

Here the user can search for a specific landmark or for a category of landmarks. Every place that fits the search is displayed below and on the map on the right. For every place, an image is displayed along with the title and a quick description.



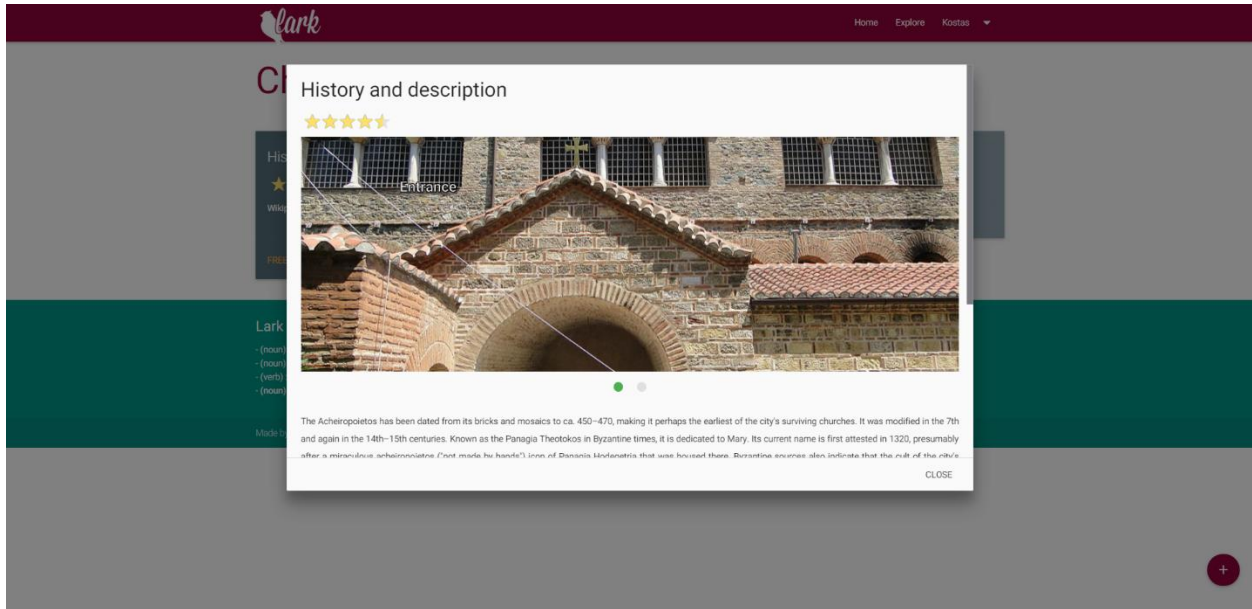
View landmark

Here the user can select a point of interest and view its contents.

The title of the landmark is displayed and below every content is represent as a list of cards.

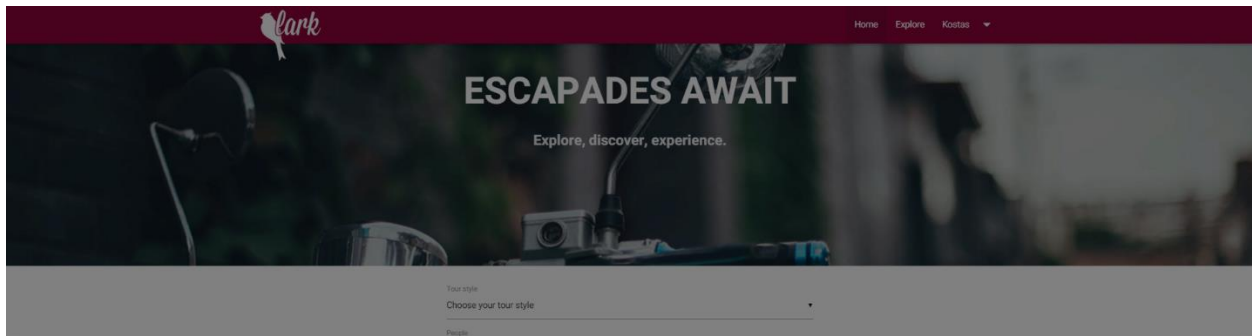
For each extra content there is a small description and a title. A logged in user can acquire (by clicking the FREE icon) the content and then view all its details.





Add Place and Content

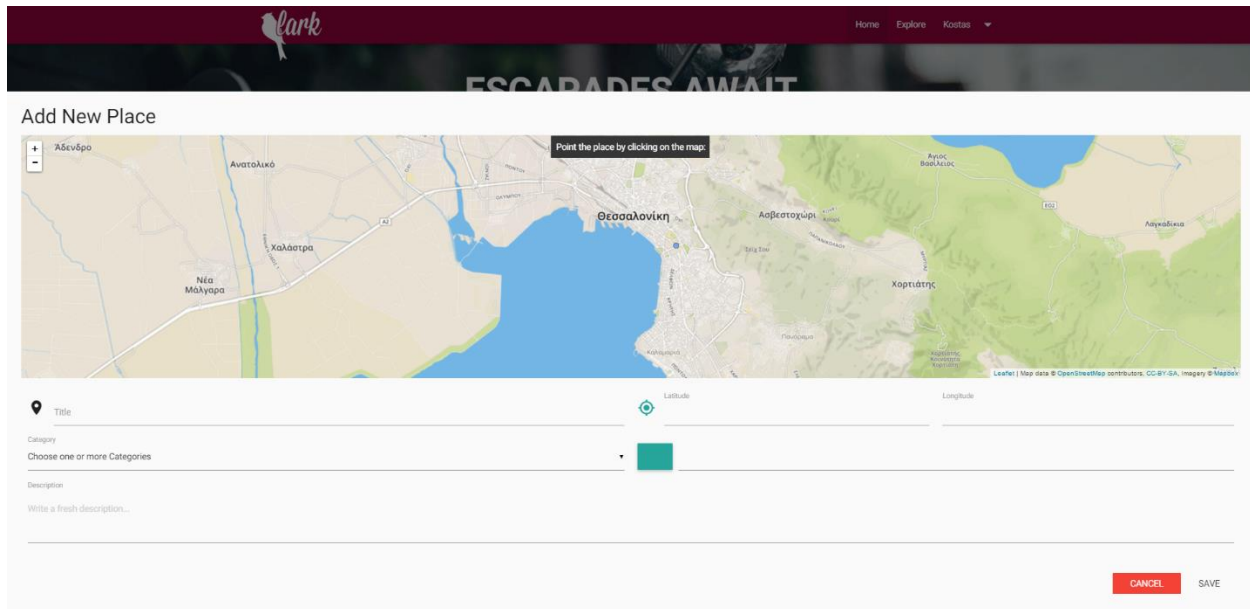
For users that have specified to be "guides", there is the extra option to add a new place or add new contents for an existing one. This can be done by using the "+" (plus) button on the bottom right of the screen.



Add New Content

Places
Choose the Place

CANCEL SAVE



Technical Specifications

In order to generate the suggested route for a user, the solution "Travelling Salesman Problem" is needed.

Since the number of landmarks are relatively small, the best solution can be found through the use of a "Brute Force" algorithm. Therefore, after acquiring the desired landmarks (by using the user's filtering), we can find the best route. In addition, the total time doesn't exceed the time that the user has chosen.

Users

Visitors:

Simple users that can view the application without registering. He can view suggested routes with all the information and search for places.

Tourists:

Visitors that can also unlock content's details for each landmark.

Guides:

Registered users that are able to upload new content (add a place or add details for a landmark).

Administrators:

Specific category users that have access to the whole system and the database.

Software and tools used

- GVM
- Groovy
- Grails
- Tomcat
- MySQL
- Subversion

- Materialize framework
- Bootstrap framework
- jQuery
- Open street maps
- Leaflet
- Wikipedia API