Tales & Trails

TWT

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THE DIGIWALKERS TEAM

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Thessaloniki Walking Tours

Connecting past and present, Thessaloniki Walking Tours walks together with you through the streets of Thessaloniki, its sights, its markets, its neighborhoods and its secret corners.

Informatics DEPARTMENT

Informatics School Department designs and offers the digital synchronized walk experience to the walkers mobile phone. At the same time, Thessaloniki walking tours organizer has the Web side capability of sketching and monitoring the walks.

Application in a nutshell (1)

The **Informatics Department** in collabotion with **Thessaloniki Walking Tours** designs and implements a (Web and mobile) application which aims at highlighting and revealing the **city stories ("tales")** via a dynamic walkers navigation experience.

Walkers can **discover the city of Thessaloniki** on real time and interact with its multiple "dimensions" : its history, its gastronomy, its people and their habits as well as the secrets and its legends.

Welcome ! to a unique digital experience of interaction with Thessaloniki's **faces and moments** via the **thematic organized walks** θεματικών as they unfold during a mobile app navigation.

Application in a nutshell (2)

people stories "hidden" and linked with important city monuments, city's art and culture and the unique Thessaloniki history are **experienced during the walk** in both a real and a digital pathway.

The application digital follows the actual city navigation offering to the walker a city map visualization at which crucial locations of the pathway are inter-linked with multiple content (text, images, social media linking) with additional interaction capabilities (text, ratings, etc).

Additionally, the walker can be updated on the walks planned, can enroll, rate the stops of the navigation, store his walks as well as update his walks material.

Application's Components

The application functionality is organized in 3 components :

1) **Mobile application:** Mobile application designed and implemented for devices operating under Android OS
2) **Web application:** Web application accessible via Web interfaces (browsers).
3) **Application Programming Interface (API):** interface to enable data transfer between the mobile and the web application.

Web Application (1)

Through the web application the walks organizers (Thessaloniki Walking Tours) can manage their walks content via the main next functionalities :

1) Add a walk
2) Edit a walk
3) Delete a walk
4) Walk's rating summarization
5) Walks's participants monitoring
6) Message sending
7) Administration members

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Αρχική Σελίδα

Σε αυτό το περιβάλλον μπορείτε να διαχειριστείτε τα στοιχεία των περιπάτων και των στάσεων. Τα στοιχεία αποθηκεύονται στην απομακρυσμένη βάση και στη συνέχεια θα χρησιμοποιηθούν για την αναπαράσταση του περιπάτου στην οθόνη του κινητού.

Συγκεκριμένα μέσα από το περιβάλλον αυτό, μπορείτε να επιλέξετε:

Web Application details (1) - **Add a Walk**

The walk's organizer enters the walk's data via the web application. The data for every walk contains:

1) **General characteristics of walk:** name, date, time, venue, kind, guides, description and number of stops of walk.
2) **Characteristics for every station:** name, description, coordinates (latitude, longitude) and station's image.

All the above data are entered in both greek and english language.

When user enters the data for walks and stops, then all data are saved in remote SQL Server.

Στοιχεία Περιπάτου

Πρόσθεσε πληροφορίες για τον περίπατο, όπως αυτός θα εμφανίζεται στην οθόνη Coming soon.

Όνομα Περιπάτου*

Ελληνικά ☐   English ☐

Πότε* ☐

Ώρα*(Η ώρα είναι σε 24ωρο) ☐

Τόπος Συνάντησης*

Ελληνικά ☐   English ☐

Είδος*

Ελληνικά ☐   English ☐

Ξεναγοί*

Ελληνικά ☐   English ☐

Περιγραφή*

Ελληνικά ☐   English ☐

Αριθμός Στάσεων ☐

[Υποβολή]

Στοιχεία Στάσεων

Πρόσθεσε πληροφορίες για τον περίπατο, όπως αυτός θα εμφανίζεται στην οθόνη The walk of day.

Στάση 1

Όνομα Στάσης*

Ελληνικά [   ]   English [   ]

Κείμενο*

Ελληνικά [   ]   English [   ]

Συντεταγμένες*

Γεωγραφικό Πλάτος [   ]   Γεωγραφικό Μήκος [   ]

Εικόνα*

Εικόνα Στάσης [Choose File] No file chosen

[Υποβολή]

Web Application details (2) - **Edit a Walk**

This actions contains the below options:

A. Edit the whole walk and all its stops
B. Edit a walk's content at certain stops
C. Edit a specific stop
D. Add a new stop
E. Delete stops
F. Copy a walk
G. Reorder stops

Delete Walk

Delete walk and all its stops of database

Rating and walks evaluation

The users of mobile application can rate the stops of each walk. Via the web's application option "Walk's Rating" walks organizers have the capability to view the summary of ratings (points) of the walk's stops.

Εστιατόρια	32	⭐
Ο Μεγάλος Περίπατος της Γεύσης	7	⭐

Λουλουδάδικα	2	⭐
Αγορά Μοδιάνο	2	⭐
Καπάνι	1	⭐
Καπάνι Ξανά	1	⭐
Αριστοτέλους με Βατικιώτου	0	⭐
Άθωνος	0	⭐
Άθωνος Ξανά	0	⭐
Καστριτσίου	0	⭐
Σβώλου	0	⭐
Παύλου Μελά	1	⭐

Νυχτερινή Ζωή	48	⭐
Σινέ Θεσσαλονίκης	2	⭐
Αξιοθέατα	1	⭐
Ρεμπέτικο	0	⭐
Ο Μεγάλος Περίπατος της Γεύσης 2	0	⭐

Web Application details (4)

Walks **Participants**

The user of mobile applicaiton can denote participation for a walk. Through the action "Participants" of web application the managers can be informed for all the participants of walks.

Message broadcasting

Through this action the users of web application can interact and send a message to the users of mobile application.

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Συμμετέχοντες

Μπρείτε να δείτε τους συμμετέχοντες ανά περίπατο.

▸	Εστιατόρια	1 συμμετέχοντες
▸	Ο Μεγάλος Περίπατος της Γεύσης	1 συμμετέχοντες
▸	Νυχτερινή Ζωή	1 συμμετέχοντες
▸	Σινέ Θεσσαλονίκης	0 συμμετέχοντες
▸	Αξιοθέατα	0 συμμετέχοντες
▾	Ρεμπέτικο	2 συμμετέχοντες

ekarkiti@gmail.com

kiki_paniskaki@hotmail.com

▸	Ο Μεγάλος Περίπατος της Γεύσης 2	0 συμμετέχοντες
▸	Αξιοθέατα 2	0 συμμετέχοντες

Web Application details (5) – **Administrators**

The "Members" is about the administrators of walks and in specific it refers to the ones who have the authority to manage the web applicaiton. The actions are:

1) Add Member
2) Edit Member
3) Delete Member

Mobile Application (1)

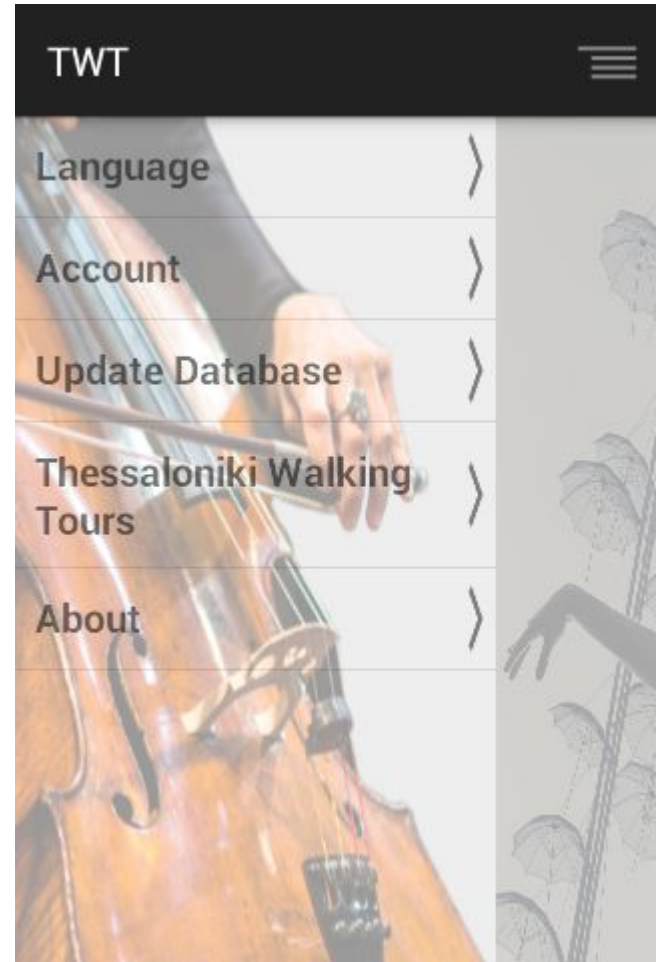The mobile application classifies the walks in 3 categories:

1) **My walks:** Walks which already have done and the user has participated.
2) **Today:** The walk of the day
3) **Coming Soon:** planned walks update. The user can denote participation until 5 minutes before walk's inception.

Mobile Application (2)

More functionalities and options:

1) **Language:** define language for mobile εφαρμογής (greek or english)
2) **Account:** create account only with email and password
3) **Refresh database:** synchronize between remote and local database
4) **Thessaloniki Walking Tours:** meet the team
5) **About:** general info about the application's basics
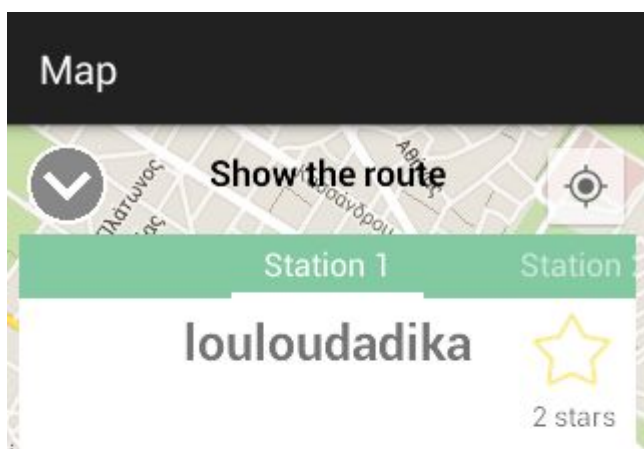
Mobile Application (3)

Walk's visualization
the walk is visualized on certain spots (stops) marked on the digital map.

an animation unfolds the overall walk pathway over the map

At each stop specific material (text, images, etc) is delivered.

MissedWalks

Restaurants

The Grand Tour of Taste
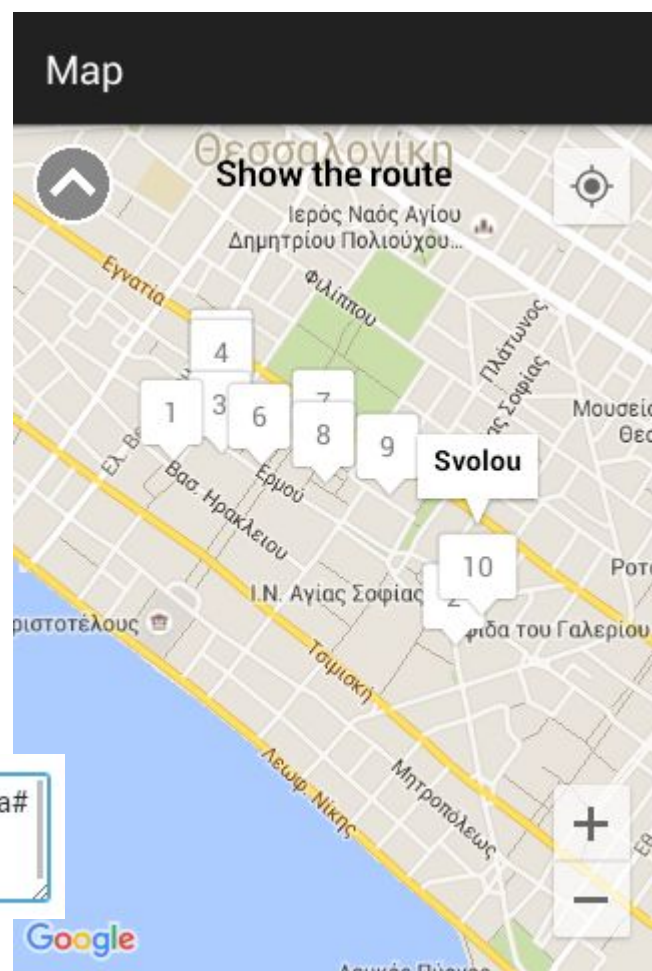
Night Life

Cinema of Thessaloniki

Map

Show the route

Station 1   Station 2

louloudadika   ⭐

2 stars

General reference to the characteristics of
the gastronomy of the city, its influences
and inclusive

Thessaloniki#Walking#Tours#louloudadika#
the uknown side of the louloudadika has
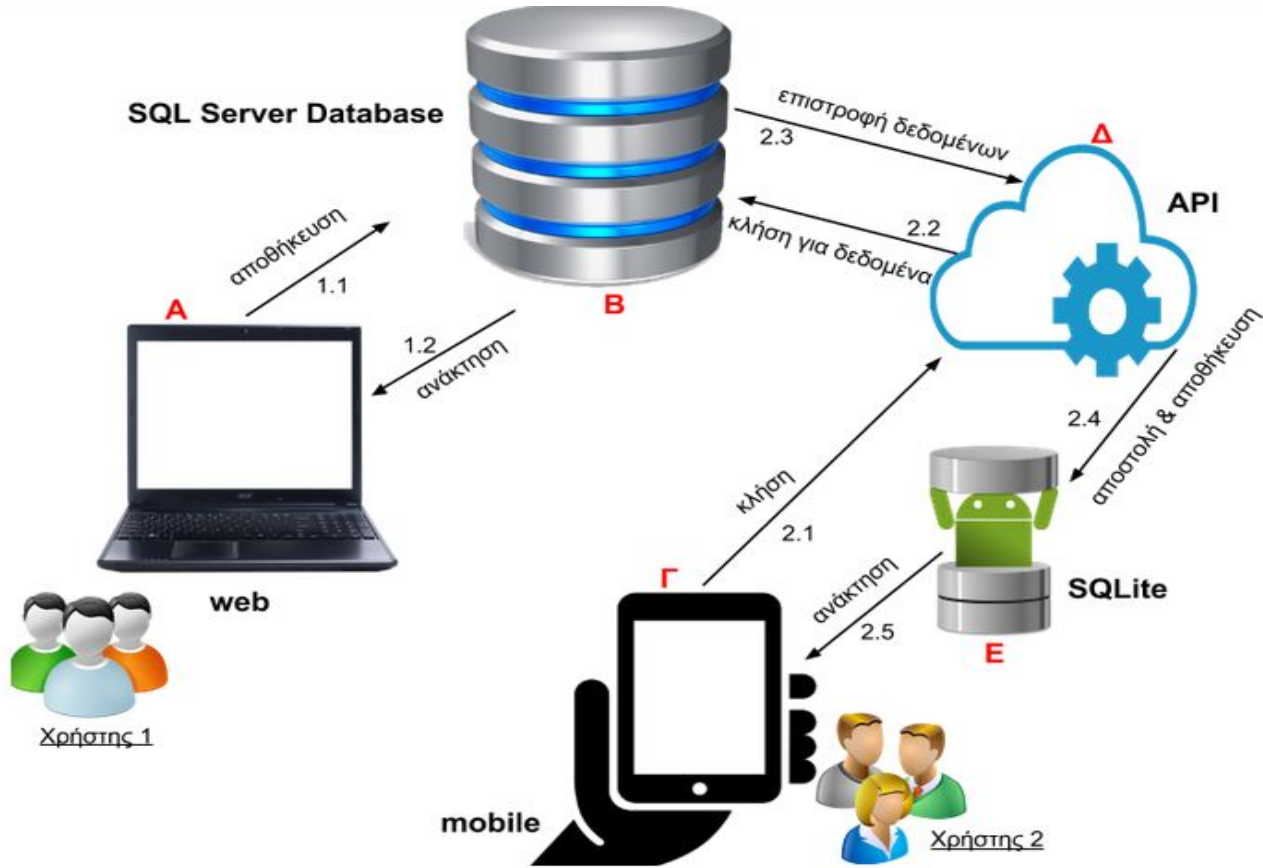unfold for me today!!!!

Social media linking

Map

Show the route

Θεσσαλονίκη

Ιερός Ναός Αγίου
Δημητρίου Πολιούχου...

4
1   3   6   7
        8   9   Svolou
                10

Google

MOBILE APPLICATION (4)

Moreover through the mobile application the user has the below options:

1) **Rate a stop :** User can rate (assign points) at the stops. These points are then send to the remote database and are summarized at the "Walk's rating" of the web application.
2) **enroll a participation:** User can declare his participation for a walk up tp 5 minutes before the walk's start. Participations are delivered automatically at the "Participants" option of the web application.

THE APPLICATION DESIGN SCHEME

TECHNICAL SIDE – API *διεπαφή διασύνδεσης*

Web application content (text, images, coordinates, etc) **are stored** at a remote database (SQL Server).

Via the developed API the data are **tranferred** from the remote to the local database at the mobile device (SQLite database).

Then, the data is **stored** at the local mobile device database such that it is directly available to the user.

Technologies

1) **Web Application:** HTML5, CSS, JQuery, SQL, PHP
2) **API:** PHP, JSON
3) **Mobile Application:** Android OS, RestFul Services, JSON, Google Maps, Google Cloud Messaging

Improvements and beyond ...

the immediate future plans for extending/enhancing the applications involve :

1) Development of the application for the iOS enabled devices
2) Improvement of the user interface abd its graphics
3) extensions with more social media platforms (foursquare, facebook, etc)
4) addition of a functionality which will inter-link walkers and enable them to interact either during the walk (online) or at any time (offline)

DIGITAL ACCESS POINTS

web application link: http://paniskak.webpages.auth.gr/walkingTours/

mobile application github: https://github.com/kikitsa/csd-Thesis

mobile application .apk: https://www.dropbox.com/s/872dscs32eskju2/talesAndTrails.apk?dl=0