

Project Information

Title *NERS*

Target

Public []

Restricted []

Proposer Information

Na me (s)	<i>Mehmet Gençol</i> <i>Oğuz Artıran</i> <i>Mustafa Murat Coşkun</i> <i>Ahmet Melih Gedikli</i>
E- Ma il(s))	e1881226@ceng.metu.edu.tr e1881002@ceng.metu.edu.tr e1881143@ceng.metu.edu.tr e1881200@ceng.metu.edu.tr

IP (Intellectual Property) Information

**There is no sponsor in our project idea. The intellectual property of the project belongs to us. This project will be private, public usage is not allowed. In the future, we are expecting to find sponsors for this project idea.*

Project Description and Background Information

Description

NERS is a location/map based mobile application which makes people aware of what is happening around them and make people socialize. Users can be in touch with their friends and different people by creating different types of events. In addition, social activities such as theatre, cinema, sport matches, galleries, parties etc. can be reached by users. We will try to explain these ideas in detail in the following parts.

- *Users could see each other on the map and chat on the same screen simultaneously.*
- *Everyone could create public/private/privileged events on the map. These event types and features of them will be explained in the end product section.*
- *The project may have user profiles, the features of the user profiles will be described in later sections.*
- *User to user and user to event navigation will be provided.*

Similar Products/Projects

- *Glympse: Glympse is a mobile application that lets people share your location with others in real-time. People can share their location with anyone via email, SMS, Facebook, or Twitter.*
- *Locate My Friend: Find My Friends allows people to locate friends and family using smart phones. They can invite their friends to share locations by choosing from contacts or entering their email addresses. When a friend accepts a user's invitation, s/he can start following their location and they can send a quick request to follow her/his location.*
- *Swarm: Swarm helps meet up with their friends by broadcasting their location to other's Foursquare/Swarm contacts, letting people quickly see who's nearby, and where.*

Justification of the proposal

- *This application which is NERS, aims to make people more social. Also, this project aims to serve lots of events to the users according to location of users and interests of users. Thanks to this, people may take hobbies and they may develop themselves on their interests.*
- *We know that most Location-Based Android Applications are similar to our project. However, We propose a solution to socialize people in NERS project more than other applications that are location-based. To reach this purpose, NERS project is mostly about events created by users, created by organizers etc. For Instance, users may start an event and may want other users in a certain area decided by the user to see this event.*
- *The first purpose of us in this project is to make the students in the universities use this application for socializing because the creators of applications, websites such as Facebook, Google start to spread their product in the universities. However, we aim to spread our product in the all around world, starting from Turkey. Besides socializing, our product can be used by all the groups of age. For Instance, in an area, A parent lost their child and to find the child easily, NERS can help that parent. Child and parent can start a chat with Map Interface and that way, parent and child easily see*

each others' location on the map and also chat with each other simultaneously. As a result NERS can help the people from all the groups of age with different aspects

Contributions, Innovation and Originality Aspects of the Project

Although there are socializing based location applications, these applications don't count the socializing as prime purpose. Rather than socializing, other applications are based on finding each other in the same place regardless of any reason and based on just locating people. On the other hand, NERS brings a different approach which is to get people together in safety. It may be considered as an innovation and originality.

Even though this application which is NERS looks like the other applications in the stores, NERS is application which is capable of serving lots of choices that mentioned above description part to the users. Moreover, NERS is useful application for owners of places like restaurants, bars and cinemas because owners of place may use NERS and they may give your advertisement of places.

Technical Aspects of the Project

We are planning to build the NERS project system with different technological models, frameworks, services provided by Google and different programming languages. For example, we will try to build NERS Location-Based Messaging System with Google Cloud Messaging and GPS module. We will explain the technical aspects line by line in detail.

- We will develop the NERS project in Android Studio Environment because Android Studio is supported by Google and developing a Android Application in Android Studio is more easier than Eclipse IDE.*
- Server-Client Model is very important model in our project. To handle the user requests, showing locations on the map and showing notifications to the users about what is happening around them etc., Using the Server-Client Model is inevitable. It is obviously seen that we may also use other different models while developing the NERS project.*
- When clients connect to NERS, a request will be sent to server and for each clients, there will be a thread which is charged. Every operation will be held on between corresponding client and server.*
- Since we are expecting to have a big number of people and profiles, there will be a huge database and a dynamic and firm server to cope up with loads.*
- Every user will have unique identifier in NERS. Phone number of corresponding user will be the unique identifier. This makes us to decide the relationship between users with their phone book. In addition to this, users can send their private event invitation to the users in a situation that they booked each other's phone number.*
- In the map screen of users, only the permitted events will be shown and this permission and user profile will be held on database with needed relations.*

Targeted Output, Targeted User/Domain Profile

In this section, we will explain our end product and all features of our project.

Messaging System

- *Users could see each other on the map and chat on the same screen simultaneously.*
- *In addition to feature of event, our application will have messaging system.*
- *In this messaging system, users may chat with the other users.*
- *Users may see three types of users in the list of contacts:*
 - Users that be online and in the area which is determined by user.*
 - Users that be online and not in the area which is determined by user.*
 - Users that not be online.*
- *Users may chat with the other users by sending messages, photos and videos on the same screen.*

Event Types

- *Every event may have keyword about the content of events.*

Privileged Events:

- *These events will be created by the owners of places and communities.*
- *These events may be seen by everyone who uses application.*
- *The creators of these events will be authorized users so that they may create official events and these events may differ from all other event types.*
- *These events may be seen in both event panel and in maps so that exact location of these events may seem to everyone.*
- *These events don't have the messaging system*
- *Users of NERS may vote these events and voting for each event may be seen to the users.*
- *The creators of these events may add explanations, photos or videos to express their events.*

Private Events:

- *These events may be created by any users.*
- *Participants of private events may be determined by the creator of the event so that any other users will not see the events neither in maps nor in event panel.*
- *All information of private events may seem to the participants of the event.*
- *Users of NERS may vote these events and voting for each event may be seen to the users.*
- *The creators of these events may add explanations, photos or videos to express their events.*
- *These events may be seen in both event panel and in maps so that exact location of these events may seem to participants.*

Public Events:

- *These events may be created by any users.*
- *In this type of event, only information of events seem in event panel but the exact location of event will not seem to all users in maps.*
- *From event panel, all users may send request to participate to the event.*
- *Depends on the response of the creator of the event to the request, the exact location will be shown to the users.*
- *Public events may have messaging system.*
- *The creators of these events may add explanations, photos or videos to express their events.*
- *Users of NERS may vote these events and voting for each event may be seen to the users.*

Event Panel

**Event panel is divided into three parts.*

**One part for privileged event, one part for private events and the last part for public events will be shown in the panel.*

**Users may see the information about events in this panel.*

**Users may search the events by keywords.*

**Users may filter the search results by desired radius.*

Notification Panel

**When a privileged and a public event is created nearby the users, users get notification.*

User Profile

**Every user has an user profile to give brief informations about a user such as status of user, residence of user, hometown of user, school of user.*

**This user profile has a remarkable feature. Every user has a Event Rating from 1 to 10 which is average rating given by other users to the events created by the user.*

**User profile show also the history of the events of the user.*

Project Development Environment

**Application will work on all smart phones and tablets that have Android operating system. Google Places API, Google Maps technologies will be used. Java and Python programming languages will be used.*

External Support

**There will be big data manipulations while developing the NERS project because holding the informations about the events, users, images, photos, messages are required to have big database. Events and users information will be hold in the NERS Database. Videos, photos, images will be hold in the users' mobile phone.*

**Server side operations may really be exhaustive in our project. That's why, we may really need quick responsive server.*

**We think that NERS project will be a large project to be designed and developed and for that reason we will need different software supports like Spring Framework.*

**Android Studio development environment will be used in this project.*

References

<https://www.glympse.com/>

<http://www.apple.com/apps/find-my-friends/>

<https://www.swarmapp.com/>

https://futurevision.rga.com/2010/04/checkin_with_locationbased_com/