Bilkent University

Department of Computer Engineering

Senior Design Project

Pengout: A mobile app to find events and friends

Project Specification Report

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1 Introduction

The search for spending free time and getting social is now more complicated process. Widening cities, crowding places lead to varieties of events taking place around to eliminate according to personal interest and taste. There are several ways that people find the event to go such as asking to a friend, seeing an announcement through social media or using search engines.

Researchers have showed that people have tendency to use social networking platforms to reach what they are looking for. In a survey, 41% of people respond that they are asking questions in type of recommendation, invitation and social connection and topic-wise 36% of respondents ask questions related to entertainment, places, restaurants and current events. The survey also has showed that the motivation of people to use social networking instead of search engines has three main aspect: trust, subjectivity and social connection [1].

However, the motivation of answering questions is not that high and this results in non responded questions. Thus, the idea of a social platform that works without motivation of responding but a motivation of attending to a social activity and help other people find their interested events may address such demand.

This search for attending events has another major factor besides finding it, which is to motivate or demotivate an individual to attend a social/cultural event is having or not having to attend it without a companion. In other words, an event is more enjoyable for individuals to attend if they have a friend to accompany them.

There are several portals and applications for people with social anxiety to communicate with each other. However, they are not specifically intended to encourage people to attend events and activities. Given that social activities have more potential to improve our social skills as well as cultural and educational aspects, a social platform that is specifically designed for those activities is potentially more effective. So this was our motivation for designing a project as such.

1.1 Description

Pengout is a social mobile based application in which motivates people to attend different events and gain various and fun life experiences. The main point of our application is helping people socialize before going to each event. That is, each user will receive suggestions of different people going to the same event before attending. The app will basically detect people that share similar interests or had been in similar events before and match them. Com-

municating with the suggested users is completely on the users. They can send messages to each other and schedule a meeting or agree on attending the meeting together.

Additionally, each member will have his/her own schedule of events. So when two friends have the same gaps in their schedules that match an event the application will suggest both of them to attend the event together. We also considered the case in which a member has a ticket for an event but he/she cannot attend for some reasons. In that case, the users will be able to hand over their tickets. This will also help people that want to attend the event but cannot find tickets. In this application members will be able to create their own events and invite their friends. The events created by the users will be saved in their personal calendar and be suggested to their friends in case it matches their calendars as well. So that the event will be suggested to more and more people. Finally users will be able to check the reviews of some events and gain a background about that event before attending it.

1.2 Constraints

1.2.1 General Constraints

- Pengout will be a free application.

- The project will be completed in summer 2019.

- The application's language will be English.

1.2.2 Implementation Constraints

- Pengout is an Android-based application, so Java programming language will be used in the implementation step.

- Github will be used to access and share the project work among the group members of the project.

- The program will use Facebook API to reach the user's friend list, if user accepts that Pengout can reach his/her Facebook account.

1.2.3 Sustainability Constraints

- User feedback will be used to develop features' or fix failures of the application to maintain the project in the long term.

1.2.4 Security Constraints

- The application will require some information (name, age, city etc.) from user to sign up to the system. However, this information will not be public, if the user does not want to share his/her information.

- The application will require username and password information in the log-in part, and this information will be stored in program database, and it is not shared with third parties.

- Recommendation feature of the application will be based on the user's actions in the application. If the user wants to stay private, the program will not collect data from other programs to obtain the user's interests, habits or his/her contacts.

1.3 Professional and Ethical Issues

1.3.1 Ethical Issues

- Users will be informed about our privacy policy while registering to the system. We will use the data of the users such as age, location of living, interests, previous events attended (if applicable), friends list who log in via Facebook for our recommendation system. Furthermore, we will ask to accept an agreement to take those information from user, which increases credibility of our program.

- Since this application will contain user data, this data must remain private and secure in case of any leak of that data. Also, under no circumstance we will share the private data of the users and their communications.

- We will let the users transfer their tickets to another users within the event owner's knowledge and keeping track of the ticket numbers, so that not causing any sculpting and turning into black market.

- As the creators we are not legally responsible from providing the safety of the users outside the limits of our program. The matching algorithm provides a ranking system but trust issues and credibility of people in real life is up to users.

- We will keep the history of events that the user has attended, this data will not be shared with third-parties but will be used in matching algorithm.

1.3.2 Professional Issues

- From Facebook we will retrieve name, email, date of birth and friend list regarding the user. Since the friends list will be driven from Facebook, we will inform the user and arrange credibility.

- Everyone can create events in our program, however, it is important to verify the credibility of a famous event-creators/companies profiles. For this purpose, the venue owners must validate their ownership while registering to the system.

- Since our application is based on real-time events it is very important that our database is up-to-date and accurate.

- The source code of the project is planned to keep private.

2 Requirements

2.1 Functional Requirements

- Users will create account with their emails or social media accounts (e.g. Facebook, Twitter, etc). However, a social media account is required if a user wants to see the events which his/her friends attending.

- Users will be asked to specify their areas of interests (e.g. art, music, etc) that will be used for suggesting events in the recommendation process.

- The users can search for the events.

- The users will be able to search events according to location/city.

- If the user will not specify his/her interests and will not login via a social media account, the events will be shown according to live location or if user does not prefer live location, just according to city.

- The user can select an event to see details such as description, attendees among friends, location, starting time etc.

- Pengout will list events feed in a way that specific events for the user will be on top.

- The user can choose to attend to an event.

- The user can choose to create an event. S/he will be asked to enter details regarding the event.

- Afterwards, host of that event will be able to send invitations of that event to his/her friends.

- The users can choose to be matched with other people who have common points (e.g. attending/attended similar events, etc).

- Users attending the same event are able to see each other and arrange meetups before the event. Friends of the user from other social media will be listed on top.

- Users will have opportunity to hand over unused tickets or to get one from another person for the event.

- After attending an event, the user can write reviews about his/her experiences.

- Users can add and remove friends in Pengout.

- Users will be able to ask for weekly or monthly calendar of events that are specific to their schedule (e.g. only weekends, etc) and interests.

- Users can chat with friends in Pengout.

2.2 Nonfunctional Requirements

2.2.1 Usability

- The application will be easy to use and learn within a couple of minutes. Therefore, user interface must be simple enough. Users will have an option to login with their Facebook or Google accounts with no need to create an account and verify it, otherwise application may not be user friendly.

2.2.2 Reliability

- Failure management: There should be a strategy for error detection and for correction, which begins with addressed definition of possible errors.

- Up-to-date content: Another specific requirement is providing up-to-date events for recommending to user.

- Performance: The response time is significant in terms of both usability and reliability requirement. The system should handle number of requests comes from number of users within seconds.

2.2.3 Extensibility

- The application will be easy to add features (e.g. idea of turning tickets to someone, sharing vehicles or flats and etc.). Hence, it should be easy to update with respect to both its background implementation and user interface design.

2.2.4 Privacy

- User information will be private. Unless taking permission of user, user information should not be accessed by anyone. Also in the application itself, if users want to hide their information (event history, location, age, interests, and etc.), they should be given this option.

- The security concern for user accounts also aims the privacy of users. Thus, appropriate login mechanism should be used to avoid such attacks that try to access users account and the system catch and acknowledge the user about the security issue.

2.2.5 Flexibility

- The application will be suitable for users in any city, region or country. It should also provide offline features regarding the different user expectations.

2.2.6 Portability and Accessibility

- Our focus group is any people want to socialize and attend events.

- Pengout will be a portable mobile application which work on any Android devices without requiring so many qualities to access wide range of users.

3 Existing Systems

There are many applications in the social network market to help people for their social life. In this section, we examined some of them, which are similar to our social network app.

- MeetUp: MeetUp is a web-based application to socialize with people according to your interests. It has a many social groups like book clubs to nature walking groups that you can participate or you can create your own group and meet up with new friends who share your interests [2].

- Circle: Circle is a mobile application, which is a location-based social network. It uses GPS to find your location and you can easily meet new people in your general area [3].

- Socialradar: SocialRadar is a location-based application that gives notifications about who is around you, when you go to an event or any social places (restaurant, bar, club etc.). This app can access your social media contacts, and gives some helpful remainders of their details [4].

4 References

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