



Bilkent University

Department of Computer Engineering

CS353 Term Project

Project name: Eventica

Project Proposal

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Table of Contents

Introduction	2
Description	2
Requirements	3
Functional Requirements	3
Non-Functional Requirements	4
Limitations	5
Entity-Relationship Diagram	7

Introduction

Especially after the effects of the COVID virus have been alleviated by vaccines and the pandemic mandates have been gradually removed, there has been a huge demand for many different events, such as concerts, open-air movie screenings, festivals, and theater plays. At these times when the number of events taking place all around the world is increasing at a fast pace, there is a need for proper sites that bring together all of these events together in one place for people to easily and reliably book their tickets, after which they can just focus on enjoying whatever event they will be attending. We will design a website for this exact purpose, where people can either create their own events or join others' events, as well as filter the events based on their location to determine the ones closest to them, or filter them based on age, type, etc. They will be able to buy the necessary tickets securely through our site, and the users will even be able to add their friends on the site to see which events their friends are attending, or view their friends' wishlists to gift them the tickets for the events that they want to attend. With various other features, such as reports created by admins that compile the best events that took place in a month, users will have an enjoyable experience on the site where they will not only book tickets but also have the opportunity to meet others with whom they share similar interests.

Description

Our project will be a local events application where every event will be brought together for people to attend, and new ones can be created by users. The users who have created their respective events will also have the ability to edit the details depending on changes to the schedule etc. The event information will be stored in the database and will be altered accordingly when changes are made. User information, such as name, location, and password, will all be stored in a database table. Users, and non-registered users alike, can view events taking place in their vicinity. Upon registering, users can buy tickets securely from our site, and if they choose to do so, their payment information will be stored in our database for future use. All of the bought tickets of a user will be presented to the user on a specific page, and the ticket information will be fetched from the database. Users may also choose to hold the tickets in their cart to buy them in the future or in bulk. The users will also have the option to save events to view them later.

Each event on the site will have its dedicated comments section, where users can communicate with each other to either ask their questions to receive answers or make friends to enjoy an event with. Furthermore, after the completion of every event, the users will be offered the chance to review an event, leave a rating and comment on the positive and negative aspects of the event. All of these reviews will be held in our database to be displayed to prospective attendees of the same event or people who

want to visit the place where the event took place. Moreover, the site admins will be able to compile and publish special reports that present the most popular events, venues, and artists for every user on the site to view. Admins can delete and edit events, venues or remove registered users and artists.

Finally, to strengthen the inevitable social aspect of our events application, we will implement a feature that will allow users to send friend requests and add their friends to their lists in order to view the events their friends are attending. Additionally, the users will be able to add events to their wish lists for their friends to view and possibly gift them tickets. Users will have the ability to buy tickets for their friends through our site and attend events together with their close ones. In addition to this, users will have the ability to write blog posts to be published on a dedicated section of the site after review.

Requirements

Functional Requirements

Requirements for Unregistered Users:

- All users can browse through the local events including concerts, games, gatherings, etc.
- Users can filter down the events based on name, description, date, status (i.e. available/sold out), age restrictions, performing artists if it's a concert, attending teams/players if it's a game, and finally average rating.
- Users can browse through artists/teams/players by their names.
- Users can view the events on the event page in detail.
- Users can view detailed information about the artists on the personal artist page including the concerts that the artist will perform at.

Requirements for Registered Users:

- Customers can choose to register to the system with their name, surname, email, password, phone number, city, address, and date of birth.
- Registered users can log in to the system with their email and password.
- When the "Forgot Password" button on the login screen is clicked, the system sends a verification code to the user's email and asks for a new password.
- Registered users can create an event specifying its name, description, date, type (concert/game/gathering), venue, any age restrictions, performing artists if it's a concert, attending teams/players if it's a game, seating plan, tickets based on categories, and total quota.
- Registered users can edit or cancel the events that they created.

- Registered users can choose multiple seats (only from the same category) and buy tickets for those tickets through online payment, where they can choose to save their credit card information for future use.
- Registered users can add events to their shopping carts for bulk purchases.
- Registered users can save unattended events by clicking on the “like” button, which will save them to their wishlist. While saving, they can choose to disclose to their friends that they liked the event, by toggling on the “share” switch.
- Registered users are able to rate and write comments/give feedback on events that they attended.
- Registered users can follow artists so that they get notified about their upcoming events.
- Registered users can add other registered users as friends.
- Registered users can write blogs that can be viewed by other users. In the blogs, they can tag events or artists.

Requirements for Admins:

- Admins can log in to the system with their email and password.
- Admins can create events specifying the hosts (if it is a concert then artists, if a sports game then attending teams etc.), ticket categories and prices, venue, description, and age restrictions.
- Admins can delete registered users, artists, and venues from the system.
- Admins are able to delete/cancel events.
- Admins can delete blogs written by other users.

Non-Functional Requirements

Scalability:

Since the system will possibly have a large number of users, it should be able to handle high load and many requests at the same time. Users shouldn't face issues when there are a lot of transactions at the same time, for example when tickets for an event with high demand are made available.

Usability:

Any user who visits the website should be able to view events, venue ratings and comments made on events. Users should also have access to the blogs section and read any blog that they want. The site should have an understandable and simple interface to make sure users can easily navigate around. Additionally, registered users must be able to create/edit events, buy tickets, write blog posts to be published, add/remove friends, view their friends' wishlists, and send them gifts. On the other

hand, an admin user should have access to a different UI where they can generate reports to present the most popular events in a month, etc. The users shouldn't be able to access the admin interface and they should have a smooth experience on the site.

Reliability:

Users will have passwords and, if they wish, credit card information stored on the system. The passwords should be stored in the database in an encrypted form so as to ensure the safety of the users and their vital information. Also, the credit card information must be stored and maintained securely, so the site will be reliable and users can utilize the site as much as they want without worrying about security. Also, the information displayed on the site should be always correct and system crashes mustn't lead to information loss.

Extensibility:

The system should be built in a way that allows for the easy addition of new features in the future or easy modification of existing ones. New additions to the site shouldn't break old features.

Performance:

The site should function fast to provide the users with a swift experience. Fetching information from the database shouldn't take too long, so the database will be optimized as much as possible to improve the performance of the system.

Limitations

There are certain limitations in this local events application in order to ensure consistency throughout the system and to prevent any ambiguities. The limitations are listed as follows.

- Only registered users will be able to purchase tickets to events. Unregistered users will only be able to see and browse events.
- Only registered users will be able to create new events.
- Only registered users will be able to create a new blog.
- Registered users will be able to rate an event only if they have attended it.
- Only registered users will be able to save/like events.
- Only the creators of the events and admins will be able to edit event details or cancel events from the system.
- Registered users will only be able to buy tickets if their profile satisfies the age restrictions of the event.

- Registered users can only buy tickets if an event has available quota in the selected category.
- Registered users will only be able to create an event at a venue if the selected venue is available at the selected date and time.
- Registered users must specify the names of the other attendants if they want to buy multiple tickets for an event.
- Registered users will only be able to see if any of their friends are attending an event. Only creators will be able to see the full participant list.
- Only admins will be able to create reports.

Entity-Relationship Diagram

