

Ontario Tech University  
Computer Science

# **Final Project**

Mobile Devices

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## **Overview:**

Our app is a comprehensive event management tool designed to assist users in creating, managing, and viewing events with ease. It provides a wide range of features and options to help users organize their events more effectively and with less effort.

The app provides a simple, intuitive user interface that allows users to quickly and easily create new events. When creating an event, users are able to specify various details, such as the date and time of the event, the location, the capacity, the price, a description, and a rating. The app allows users to add images to their event, as well as provide details specific to the occasion.

In addition, it also provides users with the ability to view events in a variety of formats, including lists, maps, tables, and charts. With this the user has the option to view events in various different ways and on top of that, be notified about the events they have chosen to attend. The user might want to look for specific events of interest and can filter by category, or can use the provided map that allows users to search for and discover events near them.

The app lets the user keep track of their events and schedule, making it possible for them to view the data and information about all their events the way they prefer to. It also allows users to find new events which they might find interesting and would want to attend, being able to sort the events by different attributes on the table and also being able to see popular events in general.

## **Group members and contributions:**

Anthony Liscio:

- Ability to add event / Add Event screen
- Calendar, charts, table cards on home screen (Using local storage for the card information)
- The Calendar
- The data table
- The horizontal and vertical bar charts
- Additional comments elsewhere
- Dark mode theme for the whole app
- Technical report
- Fixed pixel overflow on the event card in the Map screen
- Other little fixes and adjustments like adding padding where needed throughout the app

Joaquín Tomé:

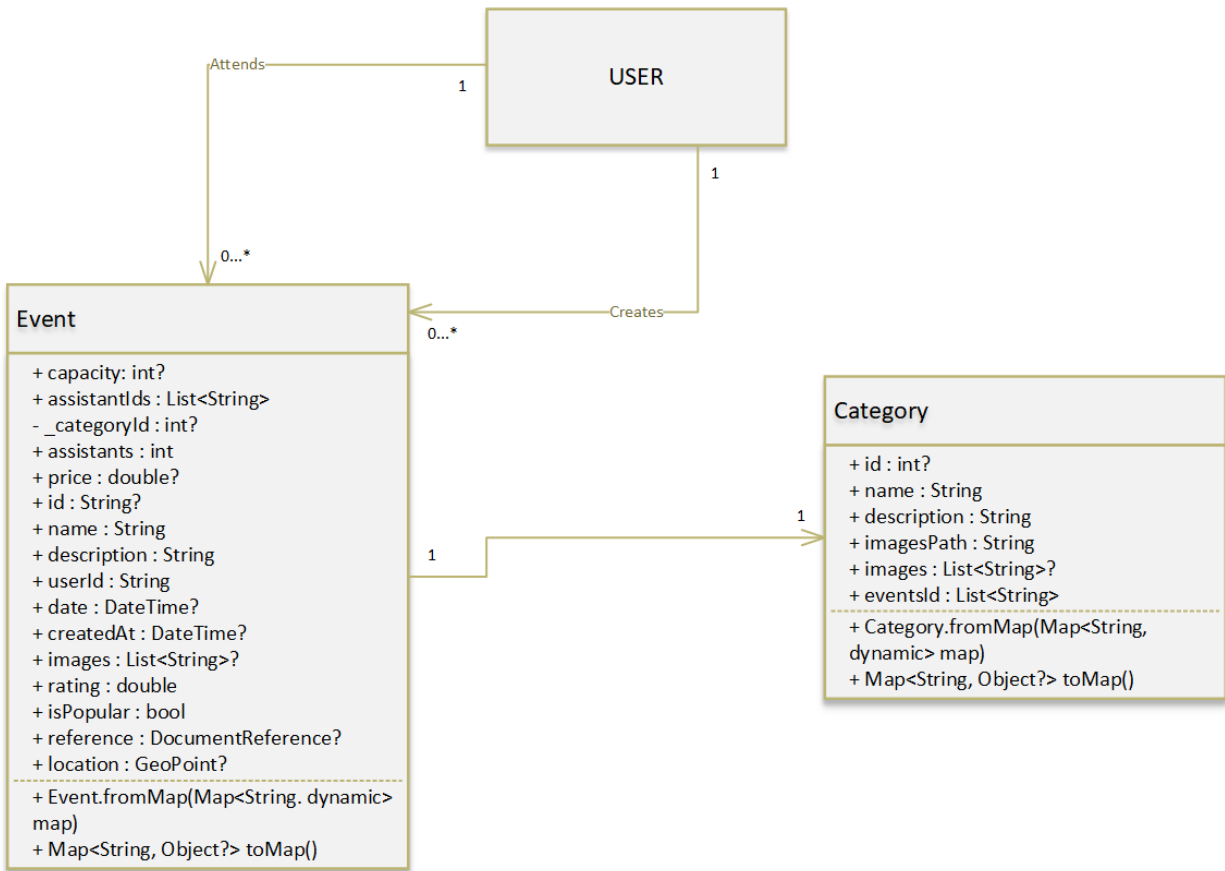
- Functionality to add an event (Event scheduler, Location on Map, etc)
- Map to select location when creating an event
- Map to see all current events displayed with their information
- Fixed Calendar
- Profile Picture and ability to change it / upload it to firebase storage

- Basic Account Settings
- View my events card and events
- View my attended events card and events
- All events screen ( Events UI changed later by Agustín)
- General minor fixes throughout the app
- Technical Report

Agustín Hernández:

- Authorization with Fire Auth - Login, Logout and Register
- Configurations of Firebase
- Events and Categories entities
- Set events images to set by default with the selected category
- Bottom Bar Navigation
- Events Created By User
- Events Grid
- Functionality to edit events
- Functionality to delete events
- Categories, the categories dropdown and the category filters in Home
- Home Screen (Changed later by Anthony and Joaquin)
- Events Cards
- Event Details, with button to edit and delete
- Notifications model in database
- Creation of Notifications when user creates an event
- Notifications View
- Attending and quitting from an Event
- Fixes in the app
- Internationalization Implementation
- Dropdown of Languages in the Account Details

## Code Design:



## User's Guide:

### Dummy Account:

We have created a dummy account with the following details:

- Username: example\_account@gmail.com
- Password: 123456

First you will be prompted by a login/register screen. Use the dummy account provided or register by entering any email and entering a password (at least 6 characters long), and confirming the password. After the register/login you will enter the main application, at the bottom you will see a tab bar with four buttons: Home, Events, Map and Profile.

If you press on the Home button, you will enter onto the home screen. From here the app is pretty self-explanatory. You will be able to create new events for people to attend by pressing on the button with a plus in the top right corner, this will open a form which you will need to fill by selecting name, description, date and time, price, capacity, location (which will open a map to select where you want the event to be hosted), category and initial rating, then you can click save and it will ask for confirmation before creating the event.

In addition, In the home screen you can view your created events by pressing the card on the home screen named “View created events” or you can view your events to attend by pressing the card named “View attended events”. You will also be able to press the cards/icons in the light orange color to view existing events filtered by category or press the light blue ones to view a data table, bar charts, or a calendar of your scheduled events.

When the charts icon is pressed a horizontal bar chart is shown, to see the vertical bar chart version press the icon in the top right corner. For both of these tables you can zoom in and out, and scroll up/down and left/right, so you can view the charts the best way possible. The data table can also be scrolled through up/down and left/right since it cannot fit regularly on the screen. The table and charts are a good way to view the data/values of your events if you would like to see and compare them.

The calendar is a good way to see upcoming and past events. Each day in the calendar that has events is marked by a black dot per each event, and if the day is pressed a list of the events for that day is shown underneath the calendar. The calendar can also switch from “month” view to “2 weeks” or a 1 “week” view by pressing on the word “month” or swiping up or down on the calendar.

Finally for the home screen, you can see popular events which appear below the cards, and on the top right corner you can also see all the notifications you have, which are based on your attended events.

If you press on the Events button, you will be able to see all the events created which might be interesting if you want to attend to one, in that case you can click on the event and a details screen will appear, showing information about the event and a button to attend which you can click if you want to attend to the event.

If you press on the Map button, a map will appear showing where all the events are, this lets you find interesting events around your area. If you scroll through the Page Controller on the Map, this will show the selected event information and move the map to the location of the event so you can see where it is taking place.

If you press the Profile button, it will take you to the profile section where you can view your profile picture and change it, as well as your account information, notifications, and a logout button. In the account information section there is an option to choose the language for the app. The two languages are English (default) and Spanish. Changing to Spanish will change the majority of the text to Spanish throughout the app.

Finally, the app supports both a light mode (default) and a dark mode. The app will use whatever the phone display setting is on. If the phone is on light mode, the app will use light mode. If you switch the phone to dark mode the app will automatically switch to the dark mode, and vice versa.

#### Note:

In case there is a problem after getting to the home screen, where there are errors with the local sqflite database, then do the following: change the name of the database in lib/models/db/db\_utils.dart then set the version to 1, and restart (not reload). Then set the version to 2 and restart (not reload), then set the version to 3 and restart (not reload). The

problem should be gone after this and all the icons should show up on the home screen and not have the circular progress indicator. This is just for the local database to have all the tables added in correctly if it has not already, and this should only have to be done at most once per device.

## **Functional Requirements:**

- Multiple screens and navigation:
  - All throughout the app there are many screens/navigation
- Dialogs and pickers:
  - Many places throughout the app, especially in the add event screen where information has to be typed in or selected from various options
- Snackbars and notifications:
  - When an event is created a snackbar is shown
  - Notification
    - When an event is created
- Local storage:
  - The category and data visualizations (tables, charts, calendar) cards in the home screen use sqflite local storage, as well as Notifications
- Cloud storage:
  - All the events are stored in the firebase cloud storage
  - The events can be created, updated and deleted
  - The Profile picture image is stored using firebase storage
- Data tables and charts:
  - Data Table screen
  - Horizontal bar chart screen
  - Vertical bar chart screen
- Maps:
  - Map screen showing where all the events are
  - Map to select the location of a new event being created
- Geolocation and geocoding:
  - Selecting the location of events in add event and showing them in the map screen at the correct locations
  - Getting the users initial position to show on the map
- Internationalization
  - The ability to change the language in the Profile, account settings.
    - There are two languages provided, English and Spanish