

PROJECT PROPOSAL

WMDD Langara 2023

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PROJECT OVERVIEW



Goal

The goal of this project is to create a platform that works as a **single source of information for all your children's activity**, with detailed notes about events, schedules, records and reviews.

At one side this will ensure parents know where to get the information from, offering a sense of trust and peace of mind. On the other side, volunteers will be able to manage all their responsibilities easier and focus on what really matters, which is offering children the best experience and creating memories through awesome activities.

BACKGROUND

Uniteer

A mobile app to manage children's activities, Supporting both parents and volunteers as the main users.

Opportunity

A plethora of information flows through organizations, community centers, sports groups, volunteers, and parents involved in these group activities. **This information often gets relayed through lengthy emails or accessed via different apps** specific to each group activity. Unfortunately, this leads parents to miss important details and commitments like campaigns, events, and ensuring their children have the necessary materials for specific activities.

On the other hand, organizers face challenges in assigning responsibilities, tracking upcoming events and campaigns, and effectively communicating with parents regarding their children's participation and development. Long waiting lists for new members add another level of complexity to managing those groups.

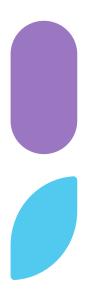
Solution

Our application aims to serve volunteers, organizations, and parents.

Volunteers and organizations will use the app to **consolidate information handling** for specific groups. This involves organizing a contact list or "class list," managing events and grouping children And teens by age and their respective activities.

Parents will utilize the app to monitor their children's development in those activities, receive immediate updates on events and campaigns, enroll or remove their children from events, access general event details, offer feedback to volunteers, and participate in direct discussions with organizers and fellow parents.

MARKET RESEARCH





Parents

According to research from Statistics Canada launched in 2022, about **79.4% of parents are very or extremely concerned about balancing their children's activities,** school and work. A study from 2018 estimated an average of \$1160.00 spent per year on extra-curricular activities. The same cost adjusted using the consumer price index (CPI) data would be **a yearly rate of \$1,370 on activities** for 2023.

Our group conducted a sample research with 5 parents and found out that besides the costs that are easy to measure and track, parents are also struggling with intangible aspects. The time they spend managing the schedules, taking their children to those activities, the frustration of not being able to provide all experiences and eventually **having their children miss some of them because of constraints and misinformation** are all present in their family's routine.

In summary, most of them end up using different platforms for each activity or paper calendars that they keep on their fridges, which makes the information diffuse and hard to reach in an already busy agenda.

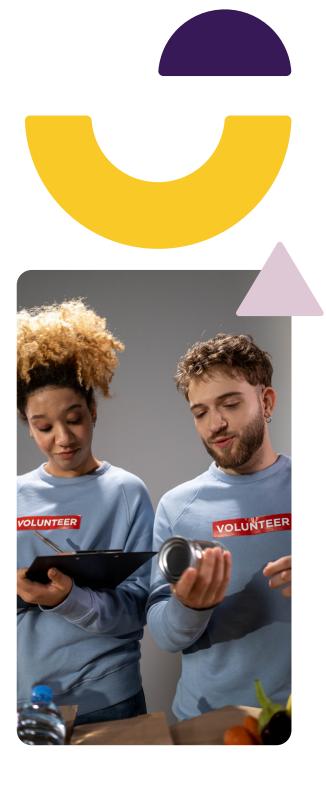
MARKET RESEARCH

Volunteers

Volunteer Canada reported in 2022 a shortage of volunteers in 65% of the organizations nationwide. Among those groups, 35% had to reduce their activities as a result, while the remaining are increasing the responsibilities and workload of their volunteers.

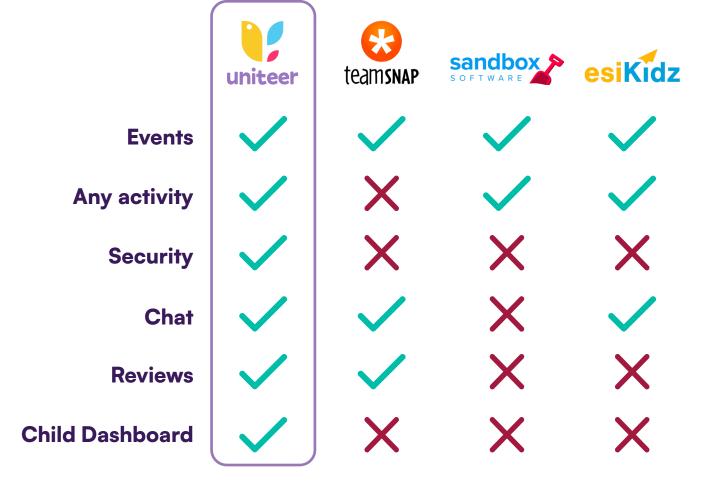
We interviewed volunteers for this project, and their main **concerns and complaints** were related to the coordination and management of the activities, which encompasses planning the events, gathering material, **communicating with parents and managing wait lists** for those groups.

Besides using digital platforms, mostly desktop-based, the majority of them are not happy with the features and **rely on chat groups, emails and newsletters** to communicate and organize. While they enjoy the sense of giving back to the community, **they would like to focus more on the activities and connections** with people, instead of planning and managing.



COMPETITORS ANALYSIS

Uniteer offers unlimited possibilities to create events and schedule any type of activity. At the same time, it builds trust between parents and organizations but maintains the security and privacy all families need. Register, organize schedules, access the most updated information, review and chat with the organization.







Jessica Anderson

Age | 41
Location | Vancouver, BC
Job Title | Consultant
Education | University Degree
Status | Married
Children | 2 (7 and 12 years old)

Personal Traits



Nurturing



USER PERSONA

User Story

Jessica is a consultant and a mother of two children. Due to both her husband and her busy work life, she is looking for ways to receive timely event updates, reminders, and insights into her kid's progress to be more actively involved in her children's lives.

Goals

- Save time in organizing her children's schedule.
- Ensure her children are having a great time and also progressing in learning and developing.
- Be more active and involved in her children's lives.
- Connect with other parents and find transportation support for her children.

Frustrations

- Has doubts about event instructors as she doesn't know them well.
- Having a hard time keeping up with her children's progress.
- Always forget about important events.
- Doesn't have time to go through lengthy emails from organizers.

What does she need?

An app that can track her children's progress. Receive regular updates through an app. A platform to communicate with instructors and other parents.



Daniel Henderson

Age | 26
Location | Vancouver, BC
Job Title | Volunteer Coordinator
Education | University Degree
Status | Single
Children | No children

Personal Traits







USER PERSONA

User Story

Daniel is a newly promoted volunteer coordinator working in a non-profit organization. He's responsible for organizing, leading, and managing volunteers and also serves as a point of contact for the participant and their parents.

Goals

- To provide support for volunteers, participants, and parents.
- To create a safe and inclusive environment for volunteers and participants.
- To create, promote and manage events for the organization.

Frustrations

- Limited resources for organizing activities and communicating with participants, volunteers, and parents.
- Stressed due to his responsibility of having to provide timely updates to participants, volunteers, and parents through email.

What does she need?

An app that can help create and organize events. Communication tools to reach out to different participants of the event and other volunteers. A more efficient way to provide timely updates to involved parties.



Events

This feature enables **organizations** and **volunteers** to **create events** within the app and share them with parents and other volunteers. Each event includes sub-features and essential information, such as event details, live updates, volunteers and participants list and approval. Users will receive regular updates delivered through notifications directly to their mobile devices.

MAIN FEATURES



Security

Each type of user on the app will have a profile with general information and specific sections according to their type. For parents, for example, there will be a section for their children, in which they can activate the security mode. The default app does not show children pictures and names, but parents can choose only to show their information and allow contact once their children already participated in the event, and they feel safer about sharing with the instructors and volunteers.



Chat

Once users register for an event, they will be able to request to talk to the organizer and the volunteers through this feature. The chat serves as an updated center for parents so that volunteers can share location, pictures, status and more. Users can connect, foster a larger community among individuals who share similar interests, support the groups, and send/receive event-related updates.





UNITEER PROPOSAL | Design Process

SCHEDULE

Week 1 **Team Roles/ Defining the Idea** Sept 8 to Sept 15 DEV Team formation/ Idea Decision Week 2 User interview/ User Stories/ User Persona/ User flow V01 DEV Tech stack research and decision Sept 15 to Sept 22 User flow V02/ Wireframe V01 Week 3 Sept 22 to Sept 29 DEV Database structure and database setup Week 4 Wireframe V02 Sept 29 to Oct 6 DEV Boilerplate code for front-end & back-end Week 5 Logo/ UI Kit Oct 6 to Oct 13 DEV Database schema and back-end configuration

Week 6 UI Kit/ Mock up
Oct 13 to Oct 20 DEV Back-end and front-end integration/main feature development

Week 7 Prototype
Oct 20 to Oct 27 DEV Main feature development

Week 8
Oct 27 to Nov 3

Project Proposal V01/ Marketing material
DEV Main feature testing/ Alpha release + bug bash

Week 9
Nov 3 to Nov 17

Project Proposal V02 / Presentation Deck V01/ Video
DEV Alpha debug/ style development

Week 10 Presentation deck V02
Nov 10 to Nov 17 DEV Style development / Beta testing + bug bash

Week 11
Nov 17 to Nov 24

Review Style Development
DEV Beta debug/ final testing

Week 12 Pitch presentation and rehearsal

Nov 24 to Dec 1 DEV Code Freeze/ Pitch presentation and rehearsal

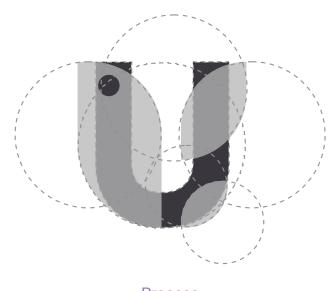


UNITEER PROPOSAL | Design Process

BRANDING

Through a process of interviews and research, our team developed the brand concept with the parents, volunteers, and also kids in mind. Encouragement, nurture and tranquility are the words that describe our solution. The brand has a cheerful vibration, representing the energy of children.

The logo represents a bird and is also built using the "u" as a shape. Uniteer aims to bring development to children in the community by teaching them skills, values and offering tools so they reach their own independence and freedom on the future, thus, the bird, that represents this freedom and "learning to fly" concept.



Process

Logo

The logo has to maintain the principles of scaling and proportions.



Monotone



Gray scale



Color









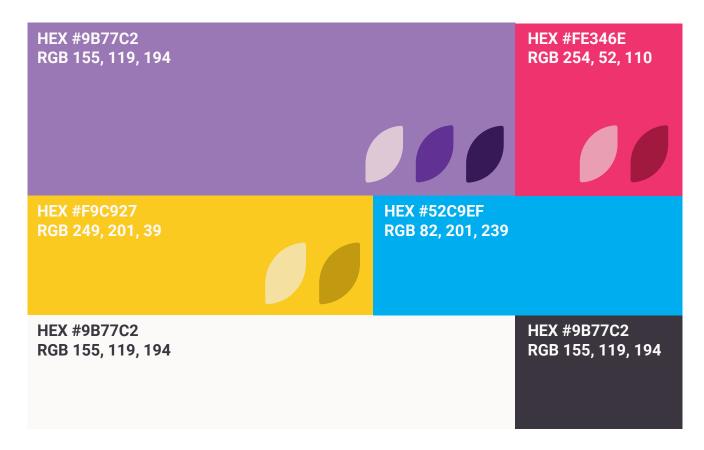
Horizontal

Favicon

BRANDING

Colors

The color palette was chosen according to the same principles of the brand and the concepts as the following description.



Purple | Primary Color

Represents creativity, fantasy and encouragement

Pink | Secondary Color

Represents nurturer

Yellow | Tertiary Color

Represents joy and happiness

Cyan | Quaternary Color

Represents tranquility and trust

Off-white | Neutral Color

Neutral color for backgrounds and text on dark backgrounds

Dark Grey | Neutral Color

Neutral color for text and icons

BRANDING

Typography

All typefaces used on the brand are sans serif with rounded shape and open curves, that transmit a friendly and warming tone to the text on the brand.

Satos	hi E	Bold

Titles

Roboto Regular Body Pally Bold Logo

H1 Heading

H2 Heading

H3 Heading

H4 Heading

H5 Heading

B1 Body

B1 Body

B1 Body

B1 Body

B1 Body

C1 Caption

C1 Caption

C2 Caption

Satoshi Bold, 28 px, dark purple

Satoshi Bold, 22 px, dark purple

Satoshi Bold, 20 px, dark purple

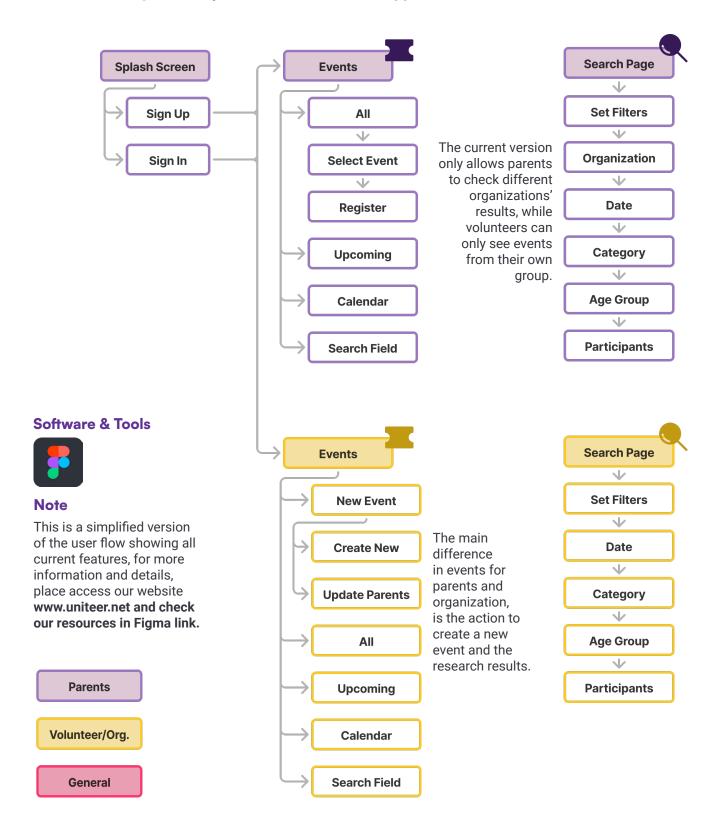
Satoshi Bold, 16 px, dark purple

Satoshi Bold, 14 px, dark purple

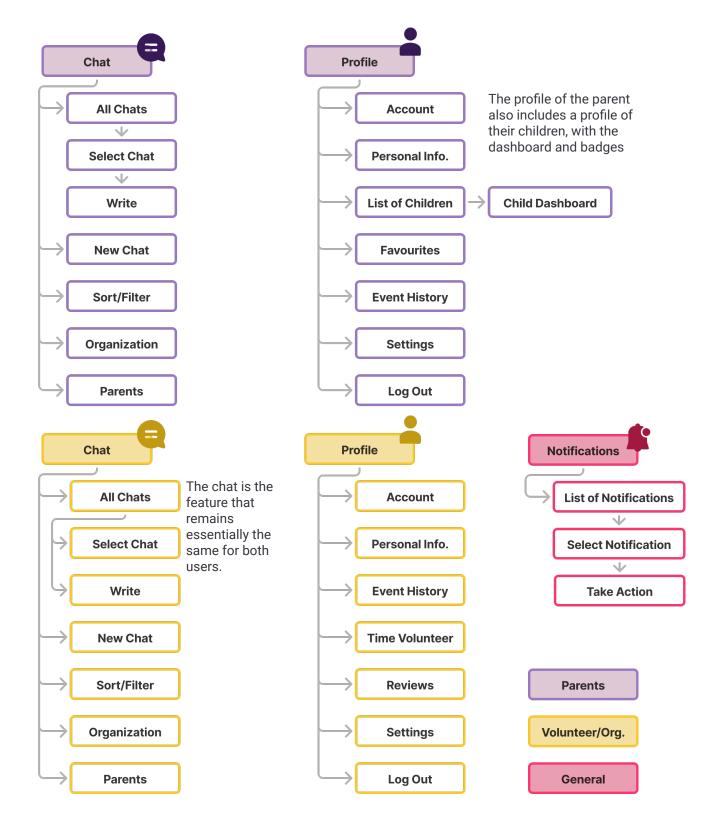
Roboto Bold, 12 px, dark gray

USER FLOW

Starting from the research and interview results, the team created the site map and user flow. The primary focus was simplifying the user's life by bringing a structure they could recognize from other apps. The team created the first version from **mental models that those users might already have from other event apps**.



In competitors, we mentioned apps related to children's activities, but we also tested and researched apps related to events and ticket purchases so that we could use concepts as affordance, including cues on the app that already show the user where they should navigate to reach their goal. For the user flow, we used the tools FigJam and Design Files.



UI KIT

While structuring and designing the UI Kit, our focus came back to the concepts that describe the brand. Thus, the rounded corners, primary colour and brightness represent the cheerful approach to the app navigation and style.

Buttons

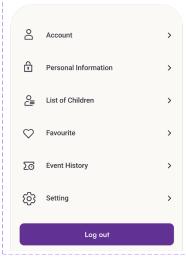




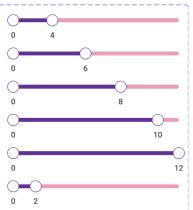
Menus

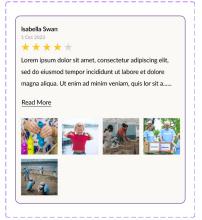


Cards and components











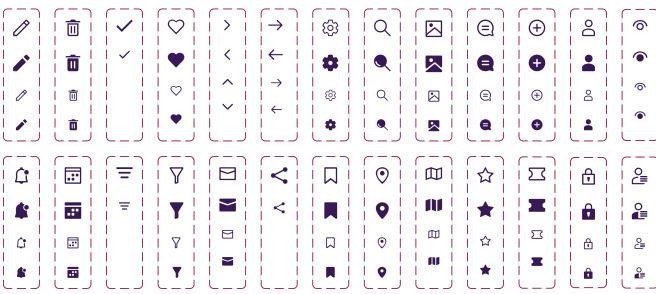




UI KIT

We sought the balance between the children's universe and the adults who ultimately use the app. On the cards, buttons, fields and icons, we used a limited variety of colours from the palette so the illustrations for the avatars in the profile and the pictures of the events could stand out. We used Illustrator, Photoshop and Figma to create the kit.

Icons



Illustrations





Software & Tools

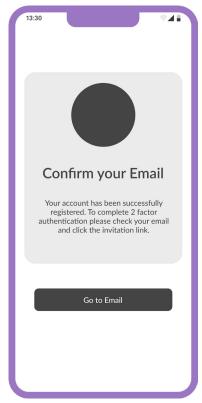






WIREFRAMES

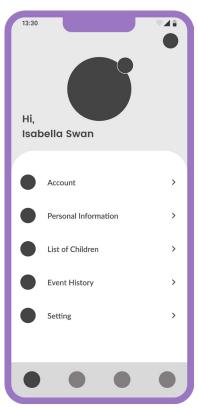
Wireframes represent the first iteration of the screens of the app, before the UI kit was ready.



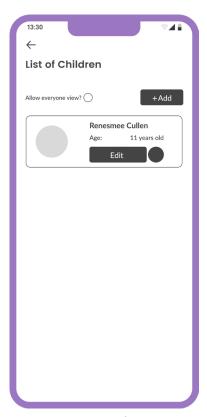
Sign Up confirmation screen



Parents event history



Parents profile page



Screen with a card for a children



Parents profile account fields simulation



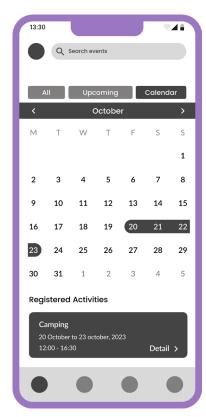
Children dashboard simulation

WIREFRAMES

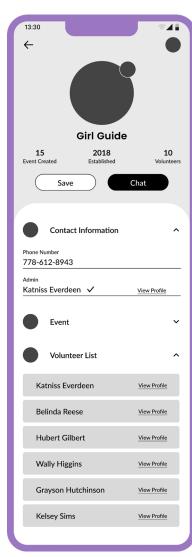
The focus is on this phase is to define the actions, and navigation based on user flow.



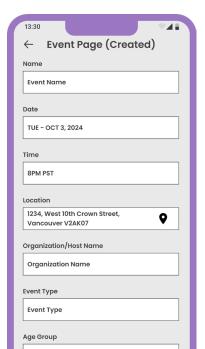
Events page for parents

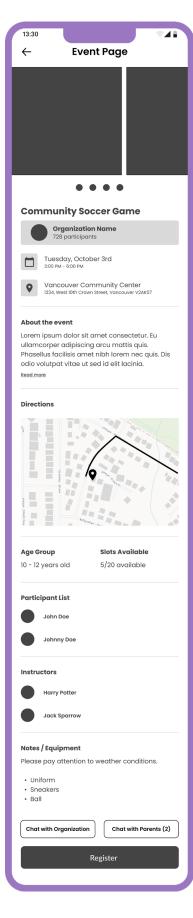


Events page calendar view



Organization page with info.





MOCKUPS

Once the team finished the UI kit, we created the mockups, which combine the visual and aesthetic aspect to the function of the app.



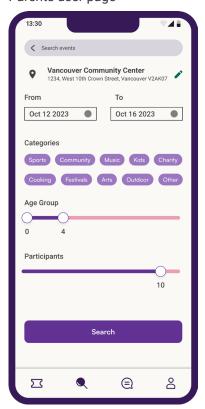
Login screen



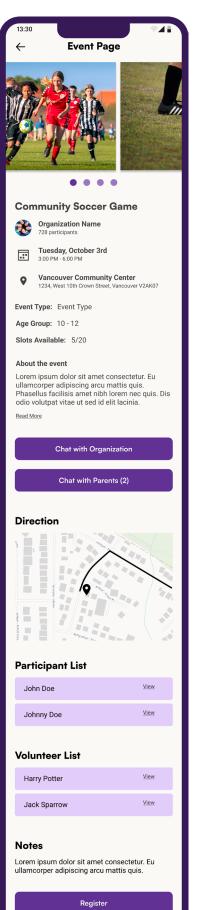
Children's list



Parents user page



Filter and sorting options for events



MOCKUPS

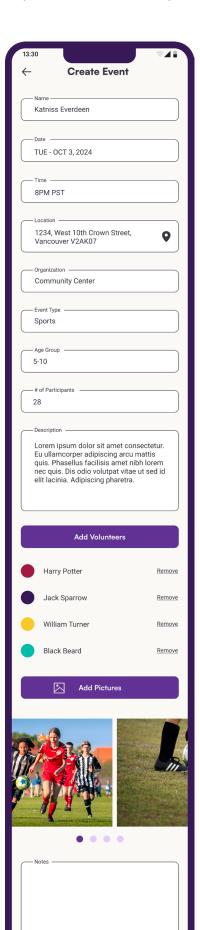
Both for the wireframes and mockups, the team used Figma, Illustrator and Photoshop tools.



Organization page



Chat





Events page for volunteer



Button expected behaviour

DEVELOPMENT PROCESS



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UNITEER PROPOSAL | Development Process

SCHEDULE

Week 12

Nov 24 to Dec 1

Week 1 **Team formation/ Idea Decision** Sept 8 to Sept 15 DES Team Roles/ Defining the Idea Week 2 Tech stack research and decision DES User interview/ User Stories/ User Persona/ User flow V01 Sept 15 to Sept 22 Week 3 **Database structure and database setup** Sept 22 to Sept 29 DES User flow V02/ Wireframe V01 Week 4 Boilerplate code for front-end & back-end Sept 29 to Oct 6 DES Wireframe V02 Week 5 **Database schema and back-end configuration** Oct 6 to Oct 13 DES Logo/ UI Kit Back-end and front-end integration/main feature development Week 6 Oct 13 to Oct 20 DES UI Kit/ Mock up Week 7 Main feature development Oct 20 to Oct 27 **DES Prototype** Week 8 Main feature testing/ Alpha release + bug bash Oct 27 to Nov 3 DES Project Proposal V01/ Marketing material Week 9 Alpha debug/ style development Nov 3 to Nov 17 DES Project Proposal V02 / Presentation Deck V01/ Video Week 10 Style development / Beta testing + bug bash Nov 10 to Nov 17 DFS Presentation deck V02 Week 11 Beta debug/ final testing Nov 17 to Nov 24 **DES Review Style Development Code Freeze/ Pitch presentation and rehearsal**

Pitch presentation and rehearsal

TECHNICAL OVERVIEW



Cloud Feature

Our mobile application relies on Google Firebase cloud services. We use Firestore as our database, providing a scalable NoSQL data solution. Firestore makes it easy to retrieve and query data, and it offers a user-friendly way to manage data. Additionally, we incorporate the Geoapify service for obtaining location data and displaying maps, enriching our application with advanced geolocation capabilities.



Security Feature

Our mobile application implements various security techniques and technologies. All network traffic uses HTTPS encryption to prevent unauthorized interception of data during transfer. We have integrated Google Authentication Service for storing sensitive information like passwords, providing a more secure and user-friendly authentication process. For secure user authentication, we implement JSON Web Tokens (JWT) to verify user credentials when accessing our APIs and services.



Platform

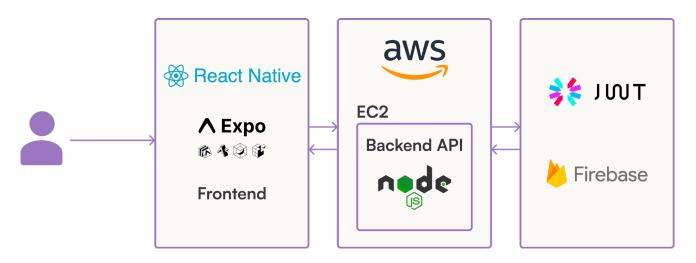
For building a cross-platform app that works on both iOS and Android, React Native and Expo are the chosen technologies. The back-end will be developed using Node.js, and the back-end API will be hosted on AWS EC2. This setup ensures compatibility and scalability across various devices and platforms.



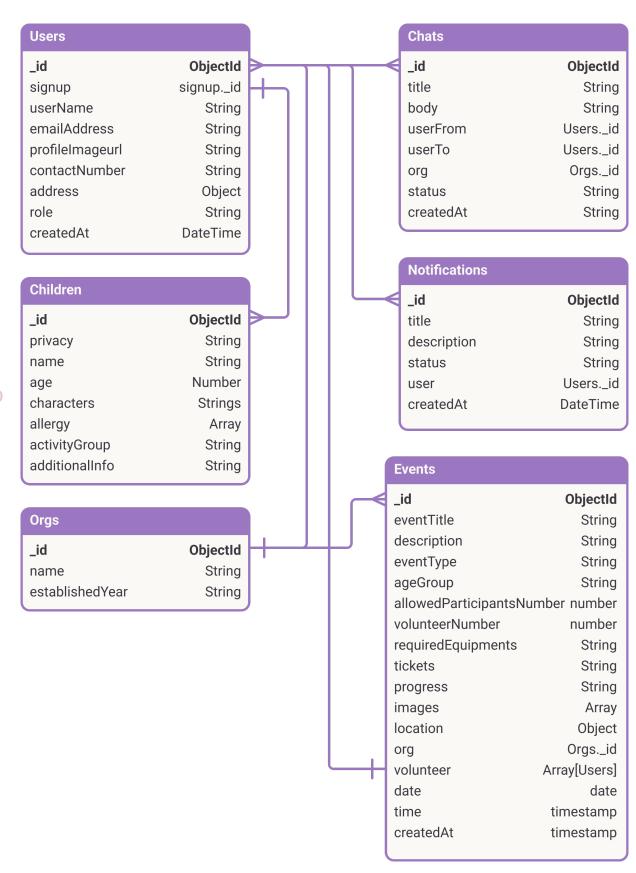
SYSTEM ARCHITECTURE

We decided to use **React Native and the EXPO framework** to develop a mobile application compatible with both iOS and Android platforms. We chose this combination as it offers a streamlined and efficient approach to mobile app development. React Native enables building mobile apps with the similar React approach used for web development. Additionally, React Native provides access to native device capabilities like the camera, location, etc. Without needing to write platform-specific code. Additionally, EXPO enhances convenience in development, testing, and deployment phases.

For secure user sign-in and login, we will employ Google Authentication as it provides a simple and secure solution for user authentication. To manage our backend cloud service, we will utilize Node. js, focusing primarily on Google Firestore. Firestore offers a scalable and manageable NoSQL database solution and provides an intuitive approach to data storage, retrieval and query. Rather than accessing Firebase through the most commonly used SDK, we will host it on AWS EC2 server, which allows more flexibility and control over the back-end.

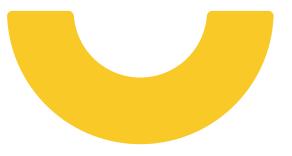


DATA MODEL



BUSINESS STRATEGY





UNITEER PROPOSAL | Business

BUSINESS MODEL

To decide on the business model, some hypotheses and scenarios were simulated:

- Would parents be willing to pay a monthly fee?
- Would users be willing to pay a percentage based on the registration fee for the events?
- Would organizations have a monthly budget for management platforms?

With that in mind, Uniteer proposes a subscription-based revenue model that allows the users flexibility according to use and events or group size. At the same time, a free 2-month trial will be offered for small teams willing to try the Uniteer platform.



New Bird \$59/month*

- Up to 50 children per organization
- Up to 10 events per month
- Up to 500MB storage



Explorer \$ 99/month*

- Up to 100 children per organization
- Up to 40 events per month per organization
- Up to 200 GB storage



Voyager \$ 159/month*

- More than 100 children
- Unlimited events
- Unlimited storage

* December 2023

FUTURE FEATURES

As our app users' numbers grow and provide feedback, we aim to test hypotheses and provide continuous improvement by developing more tools and resources. The following are some of the ideas and suggested future features.

Customization

The customization feature will enable users to **create and personalize their avatars and colors on the app.** Since Uniteer focuses on security, no children's picture will be used on the app. As **a tool to create a better identification** for users and their list of children, illustrations and different types of characteristics will be available for the user to choose from.

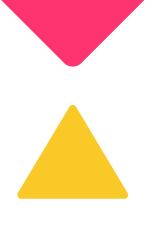
Connection

In our current MVP, only the chat within the organization and with parents and organizations is active. For the next version of the app, parents will be allowed to connect with other parents whose children are participating in the same event. Each parent will need to accept the connection by a request action, to maintain security levels. This will help them support each other by sharing experiences, giving rides to each other's children and enhancing one of Uniteer's pillars: strengthening communities.

Campaigns

Uniteer allows the creation of events with a wide range of information, but there is also a need to create collaborative movements in which more specific goals are aimed, such as fundraising, collecting materials for a given activity, or allowing parents to participate in the organization. This feature will allow customization on the event's input fields and come with dashboards and insights to guide the way while trying to achieve a goal.











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UNITEER PROPOSAL | Team

DESIGNERS



Rafaela (Hafa) Jung PM + UX/UI Designer

- nafaelajung
- m rafaelajung.com

Hafa has a background in engineering and coordination, she participated as a user and tester in the development of apps for construction. In this project, she was responsible for bridging design and development, research, user flows, and wireframes, while learning more about UI with more experienced designers on the team.



Neo Yu **UX/UI** Designer

- in neo-yu
- meoyu.ca

Neo has a background in digital marketing and graphic design. He is passionate about graphics, illustrations, and logo design. He created the logo for last term's project and he was flexible and contributed to both UX, UI and video editing for the Uniteer project.



Sze Man Chang (Celia) Lead + UX/UI Designer

- n sze-celia-chang
- celia-chang.com

Celia has three years of experience in graphic design and digital marketing. In Uniteer, her responsibilities included working as a UX/UI designer and supervising and supporting the UX/UI design process. Building wireframes, components, mockups, illustrations, and branding designs are her areas of expertise.



Snehjot Saini UX/UI Designer

- nehjot-saini
- snehjotsaini.com

Snehjot has one year of experience in freelancing, executing a wide range of graphic design projects. She is dedicated to further refining her design skills within the framework of a collaborative team project. Snehjot collaborated with designers and developers on Uniteer. Her passion lies in crafting wireframes and diligently optimizing user flow, ensuring a seamless and user-centric experience.

NITEER PROPOSAL | Team

DEVELOPERS



Binazir Farokhi Full-stack Developer

- m binazir-farokhi
- github.com/Binazirfarokhi

Passionate Full Stack Developer with a strong foundation in front-end and back-end technologies. Committed to continuous learning and staying abreast of emerging trends. Proficient in crafting efficient, scalable, and maintainable code. Adept at collaborating with crossfunctional teams to deliver high-quality solutions. Eager to contribute innovative ideas and skills to dynamic projects that push the boundaries of technology.



Hmoon Thet Aung Full-stack Developer

- nmoonthet-aung
- github.com/HmoonThet

Systems Analyst and Software Developer skilled in engaging with stakeholders of all levels to facilitate requirements gathering and document as-is and to-be processes. Experienced in design, software development, user acceptance testing (UAT), defect resolution and implementation of technical solutions. Over 10 years working with Microsoft Technologies and Oracle Database. I am on a journey to become a proficient web and mobile developer, striving to master the most current and cutting-edge technologies in the field.



Ziyun Yue Full-stack Developer

- i ziyunyue
- github.com/Lemon03

With two years of experience in managing on-line stores and executing event campaigns in the e-commerce sector, Ziyun has a diverse understanding of business and technical aspects. She has developed a specialization in full-stack development, focusing on technologies such as React, Next.js, Node.js, MongoDB, Google Firebase, and Firestore. Her role encompassed the entire application development life cycle.



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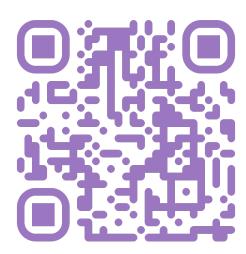
Images by Cottonbro studio - Photography - Pexels. (n.d.-b). https://www.pexels.com/@cottonbro/

Kingsbury, M., Kohen, D., Liu, S., Fisher, P., & S. (2022, January 26). As a result of the COVID-19 pandemic, Canadian and American parents of young children have faced unique stressors, such as additional homeschooling and caregiving responsibilities, and families in both countries have experienced pandemic-related deteriorations to mental health (gadermann et al., 2021). this paper examines the parenting concerns of parents of young children in the U.S. and Canada during the early stages of the COVID-19 pandemic based on data from Statistics Canada's parenting during the Pandemic Crowdsource Survey and the University of Oregon's rapid assessment of pandemic impact on development – early childhood (rapid-EC) survey, and explores contextual factors that might explain the similarities and differences between Canadian and American parents' pandemic experiences. A comparison of parenting concerns in Canada and the United States during the early stages of the COVID-19 pandemic. https://www150.statcan.gc.ca/n1/pub/36-28-0001/2022001/article/00003-eng.htm

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