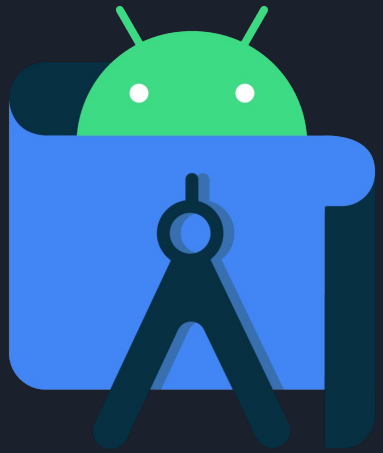
OmegaCalendar

What is Omega Calendar?

- Android Application
- Calendar for events
- Discord integration for convenience
- Custom Database

Some Challenges we Faced

- Twitter Api Failing Us
- Software and Concepts we have never used
- Building from the ground up entirely



Who Are we?

Leon - Lead Ui Engineer

Room

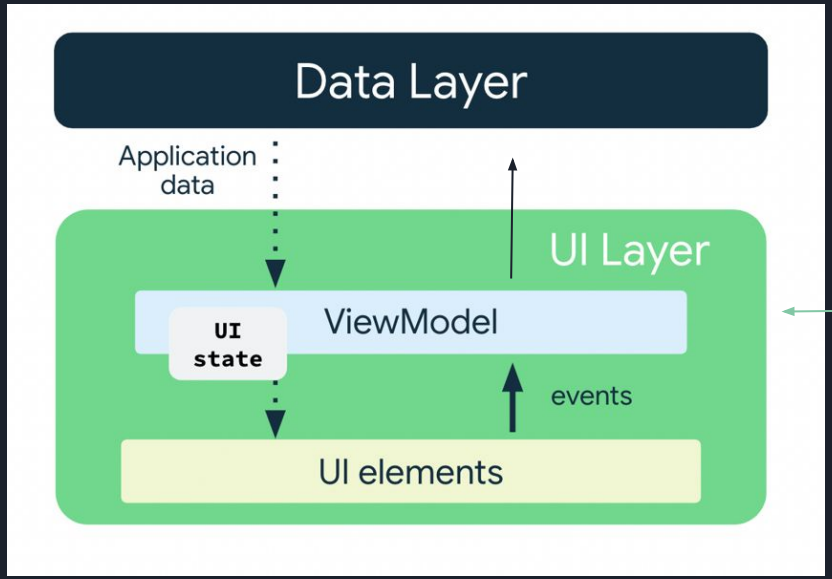
The Room persistence library provides an abstraction layer over SQLite to allow for more robust database access while harnessing the full power of SQLite.

Compose UI

Jetpack Compose is Android's recommended modern toolkit for building native UI. It simplifies and accelerates UI development on Android. Quickly bring your app to life with less code, powerful tools, and intuitive Kotlin APIs.

Navigation

Navigation is a framework for navigating between 'destinations' within an Android application that provides a consistent API whether destinations are implemented as Fragments, Activities, or other components.



Stores methods to modify UI elements and access database

Contributions

Implemented the month screen

- Logic to show the correct days of the month
  - Basically from scratch
- Ability to switch between different months
- Button to manually choose year
- Display events at the correct days

Created "template" to allow for new screens to be added

- Communicated to other members how data would be transferred between day and month screen
- Initializing the navigational component (navController)

Helped bridge gap between data and UI layer

- Incorporated general access to database to display events stored
- Using viewmodel to access events in database
- Using viewmodel to update UI state

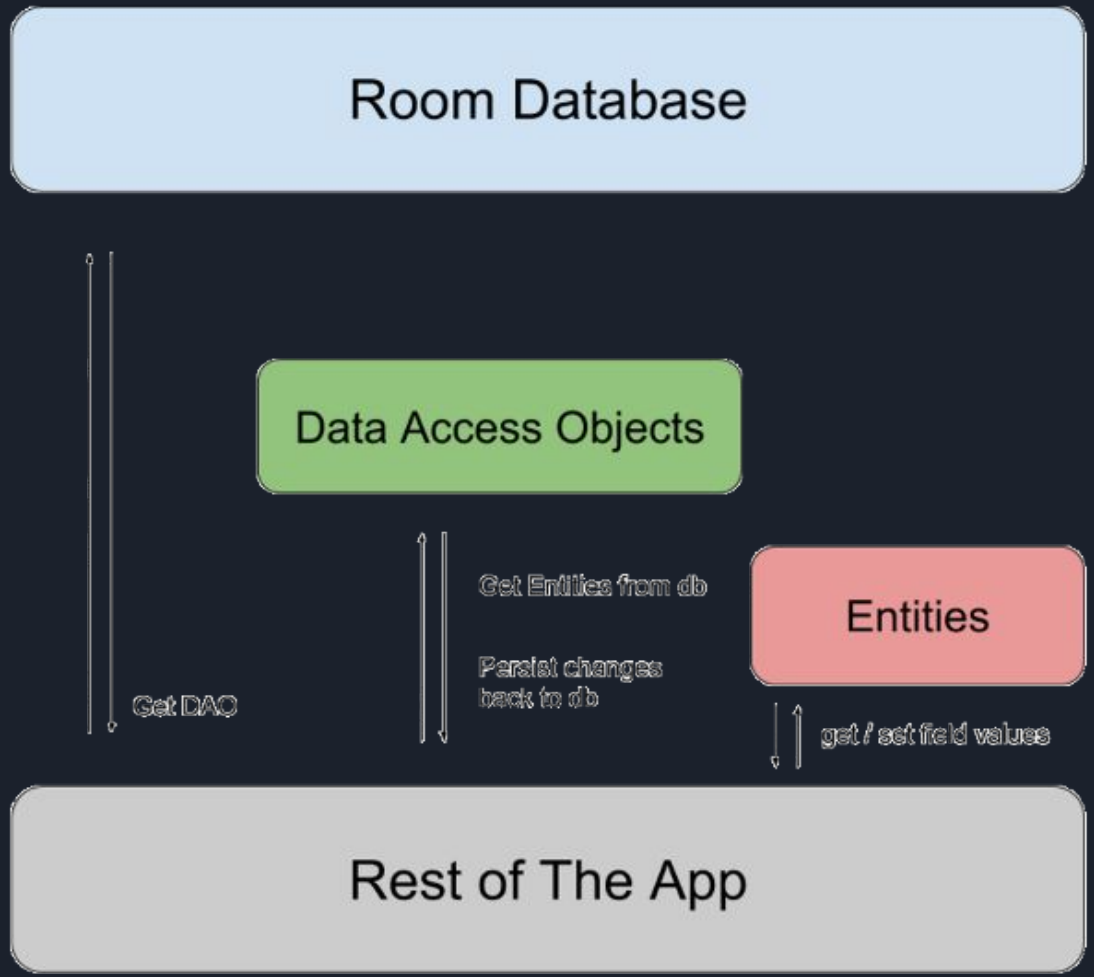
Anthony -Backend and Database

Implemented persistent storage of Events with RoomDb.

- Imported Dependencies for RoomDb
- RoomDb allowed us to implement persistent storage in a database scheme which allows us to easily and efficiently retrieve events from the app storage with SQL queries.
- RoomDb is an abstraction layer for native android SQLite.
- Essentially let us avoid coding in boilerplate android SQLite and load rows into objects to interact with in the rest of the application.

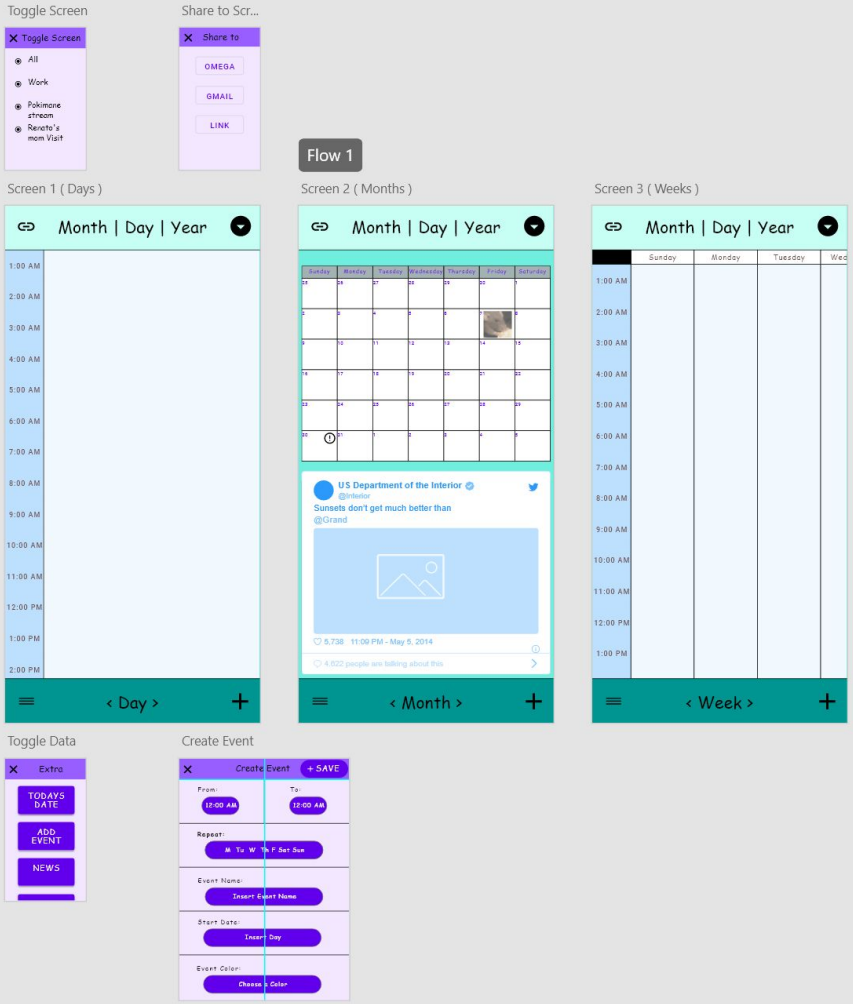
Facilitated the development and integration of the ViewModel into the rest of the application

- View model ended up being a pillar of the application since it allowed us to access the state and data of the database while integrating it into the state/view of the user interface.


Room Database
Data Access Objects
Get DAO
Get Entities from db
Persist changes back to db
Entities
get / set field values
Rest of The App

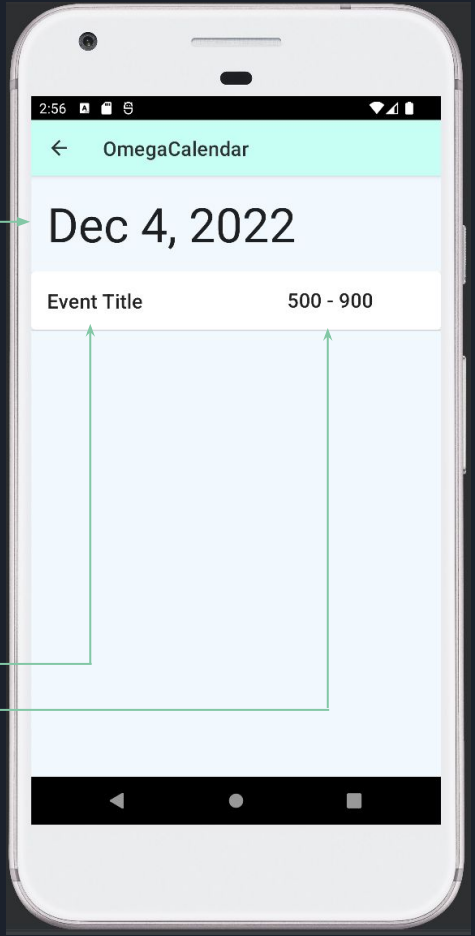
Juan - Ui Engineer

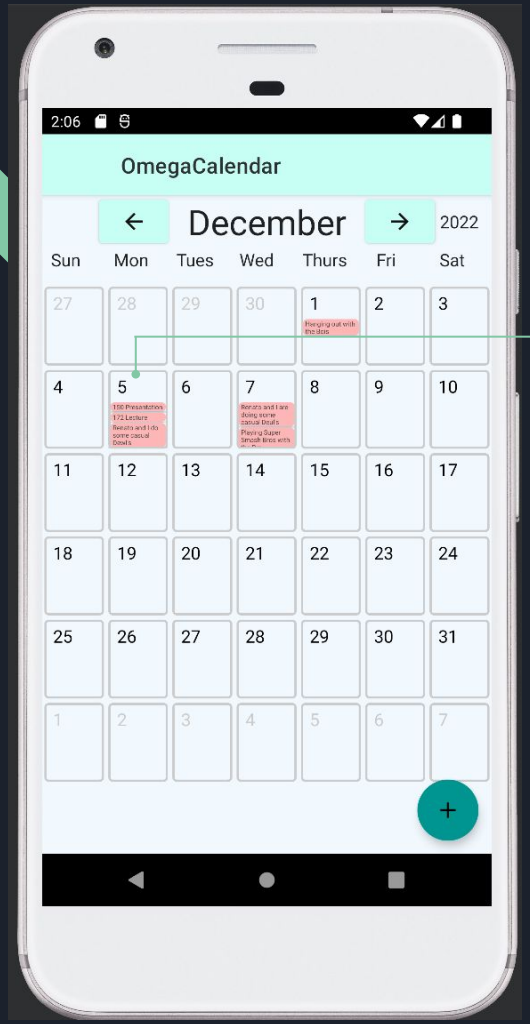
- Created concept visuals
  - Screens that would transition
    - Month
    - Day
    - Week
  - Interactive Buttons
    - Add Event
    - Share Event
    - Togglable Event Screens



Juan - Ui Engineer

- Implemented the Day Screen
  - A Functional Month/Day/Year
  - A Functional Event List that could scroll
  - Collaborated with the Leon and Renato to pull data to the selected month
    - Select Day displaying the correct Time
  - Collaborated with the Anthony to pull data from the Database
    - Select days having the correct event
    - Select event displaying to correct event

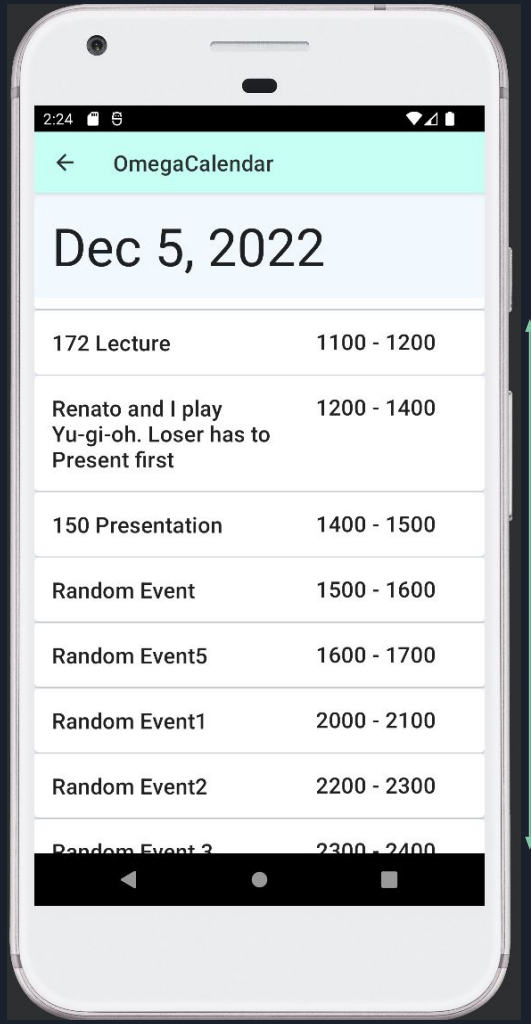




Select:
Month/Day/Year

If Event exists

Event Desc.
Time start
Time end



Renato - Backend + UI Engineer

Integrated different activity components from other team developers

- Navigations from month view to day view
  - Passing database view model from month-day components into the day view
  - Retrieval of data in the day view from the view model that was passed

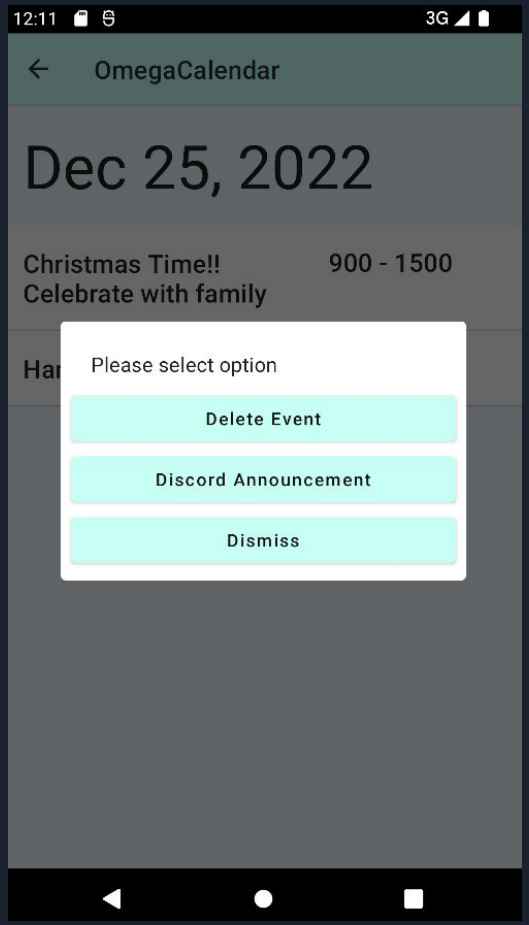
Assisted development of the day calendar view

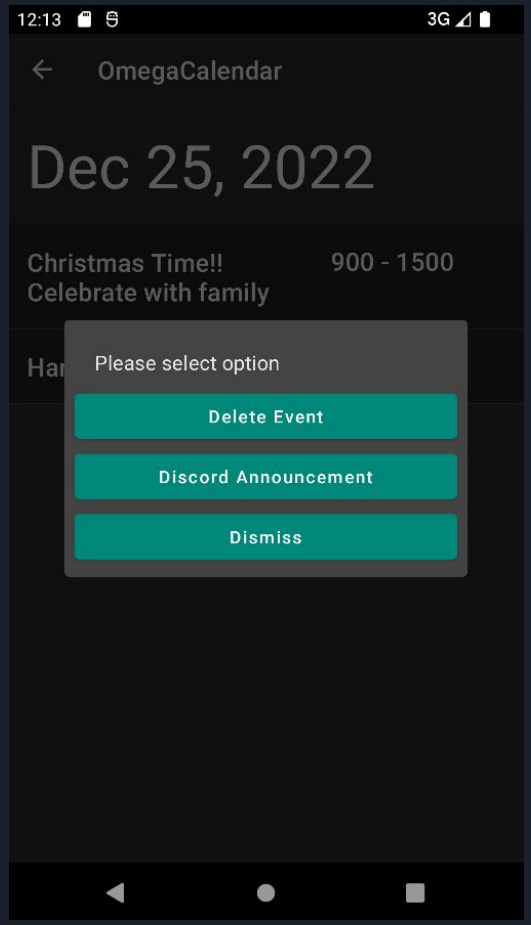
- Created an alert dialog button selection that is used per given event
  - Safely delete a given activity from the database
  - Announce given activity to discord

Implemented basic embellishments across the application

- Color schemes
- Removal of test components

Conceptualized general functionality of the application


12:11
3G
OmegaCalendar
Dec 25, 2022
Christmas Time!!
Celebrate with family
900 - 1500
Please select option
Delete Event
Discord Announcement
Dismiss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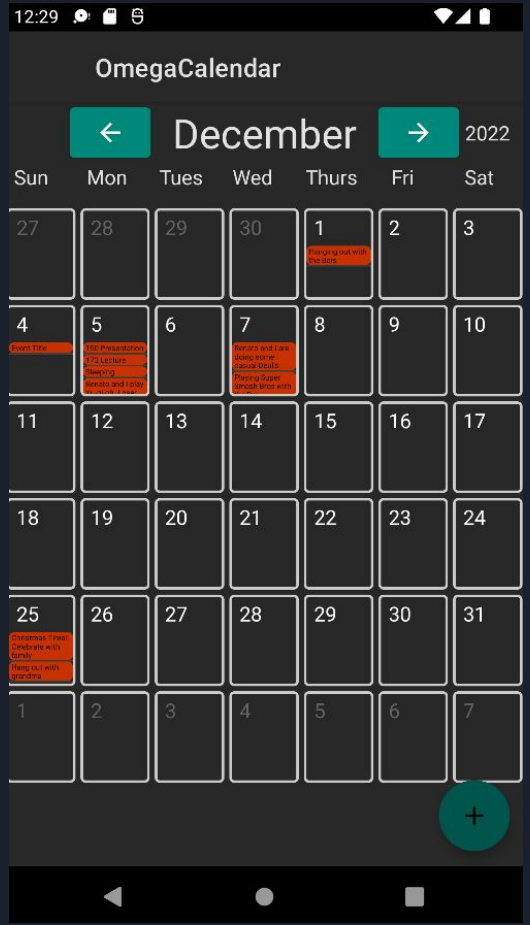
12:29
OmegaCalendar
December
2022
Sun
Mon
Tues
Wed
Thurs
Fri
Sat

Devin - Project Manager/Network Design

- Designed Network Functionality(Retrofit)
- Completed Presentations and Docs
- Managed progress

```
fun networkrequest(info: Event) { //this is the network request function it has to exist here in the main or it wont function
    val imageloc = "https://assets.stickpng.com/images/587185d57b7f6103e35c6cc7.png"
    val templateStatement = "Hello, ${info.desc} is starting at ${timeconverter(info)}. Don't miss it!"
    val requestModel = RequestModel( username: "OmegaCalendarBot", templateStatement, imageloc)

    val response = ServiceBuilder.buildService(ApiInterface::class.java)
    response.sendReq(requestModel).enqueue(
        object : Callback<ResponseModel> {
            override fun onResponse(
                call: Call<ResponseModel>,
                response: Response<ResponseModel>
            ) {
                return
            }

            override fun onFailure(call: Call<ResponseModel>, t: Throwable) {
                return
            }

        }
    )
}
```

App Demo

Q n A

End