

Tell us what your idea is.

"Benjil" is a task manager/journaling/growth app, with a twist.

The app takes inspiration from the **bullet journaling** method. It involves the use of **bullet points** and **hash-tags** while journaling.

However unlike other todoist style apps, you won't be using buttons, dropdowns, etc to plan you days.

Benji takes a more minimal and intentional approach. You add task, events etc on a simple text interface using simple natural language and minimal constructs. This then converted to processed text using ML.

The processed and structured data is then used for setting reminders, tagging you tasks, making entries searchable and showing you visual graphs etc.

ML will tie into its features in the following way:

Using NLU and information extraction:

- 1) It will extract temporal words (time, day etc) from the text it gets and use that information to set reminders using Google's Calendar APIs.
- 2) Extract *noun:verb*, *noun:adjective* pairs to create key:value pairs that can then be used to create graphs etc to track your progress.
- 3) Identify names of people and places from the text and uses that to structure tasks and reminders. Such as suggesting contacts, location etc.

"Benji" aims at keeping you journaling experience simplistic without all the bloating and at the same time also give you a sense of accountability as you are putting effort in what matters.

Note: To fully understand the idea and its implementation, please refer to the the readme.md of this project.

Tell us how you plan on bringing it to life.

The following have been done:

- 1) UI mock-up
- 2) Blueprint of the app
- 3) The journaling system

The app will use a sql database to locally store the data, which can be periodically back up into the cloud. For cloud, firebase will be used.



I will be creating the app using MVVM as that will be the most suitable for a local + cloud database app. Simple regular expression will help process the (processed) output of the ML models.

Machine Learning:

I will be using an RNN to extract the features from the phrases. Eg. (Monday, date), (is, preposition) etc.

These features will be then used to classify the phrases into various areas such as due date, frequency, time period, key value pairs etc.

The models will be tensor flow models trained and hosted using ML Kit.

I will be needing guidance and mentoring mainly on this part.

Things like:

- 1) Mentoring and guidance with working with the ML models.
- 2) Creating the custom datasets for the models.

Would also appreciate help with "perfecting" the overall app design and UI.

The Timeline.

- **December:** Will implement the UI Mockups in code and plan the project.
- **January:** 1) A 15 day sprint to code the basic skeleton of the app. (Data-structures, database, UI and its binding etc)
 - 2) Another 15 day sprint to work on the Machine Learning part. (Creating a test model etc)
- **February:** Creating datasets, training the model and ultimately integrating it with the app. (2 sprints)
- March: Finishing the non-ML part of the app. (2 sprints)
- **April:** Testing, bug fixes, refinements etc.

Tell us about you.

Hey, I am a 22 year old Engineering Student residing in Uttarakhand, India. I am currently doing my bachelors in technology in Computer Science, from the foothills of the Himalayas.

I also have been remotely working, for the past 5 months, for a startup (<u>kommunicate.io</u>) stationed in Bengaluru (The Silicon Valley of India).

This app and the vision behind it is something that I am deeply passionate about. Journaling has helped me survive a few major pitfalls in life and now I want to share the experience with the to the world. Having journal consistently for the past 12 months, I believe I can provide something more than purely technical.



Here are some of my projects. I hope they can show my growth and skill:

- 1) Bus Booking App
- 2) Notice Board Web App
- 3) Notice Board Admin Application

Apart from that I have mostly been working part-time on the Applozic and Kommunciate Chat Support SDKs. Forks from the startup repository can be found on my github.

Also if I forgot to mention, google is my dream company. Love the vision.