

# Lifelog

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## Link to GitHub Repository

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# Table of Contents

## **Lifelog - pg. 3**

OUR VALUE

OUR VISION

WHAT SETS US APART

## **The User - pg. 4**

USER TYPES

WHO WE CATER TO

OUR SCOPE

## **Phase 1 Features - pg. 6**

## **Phase 2 Features - pg. 18**

# Lifelog

## *Our Value*

The Lifelog web app aims to enhance users' lives by helping them achieve their dreams and aspirations. Lifelog provides a platform that generates meaningful recommendations of new activities to enrich users lives, and foster life change. Team Peace sets out to help people change their lifestyles with Lifelog.

## *Our Vision*

The vision of the Lifelog app is to inspire, motivate, and actively help people pursue their dreams and live life to the fullest. Lifelog seeks to help users set, manage, and accomplish their Lifelog Items<sup>[2]</sup> while fostering a sense of achievement and personal growth. Ultimately, the end goal of our product is to become the top option for people around the world who want to change their life.

## *Pain Point*

Lifelog addresses people's tendencies to drop their large life goals and never accomplish them. Our application will compete with static journaling apps like Daylio (Relaxio s.r.o.), and bucket list applications like Bucket (Bucket Inc). Lifelog's unique recommendations set it apart from competing applications by more directly engaging with the user and facilitating motivation by pushing them toward their goals.

## *What Sets Us Apart*

The recommendation engine<sup>[4]</sup> embodies our core value of enhancing lives by helping users achieve their dreams. It transforms aspirations into experiences, providing personalized recommendations and motivation. These recommendations provided by Lifelog make user's lives more fulfilling and memorable.

# The User

## *User Types & Responsibilities*

### Root Admin:

- The role is created only once at the beginning.
- Root Admin is a super user who has the following permissions:
  - Create LLIs<sup>[2]</sup>
  - View any user's LLIs<sup>[2]</sup>
  - Edit any user's LLIs<sup>[2]</sup>
  - Delete any user's LLIs<sup>[2]</sup>
  - Create Admin users
  - Delete Admin users
  - Create normal users accounts
  - Delete normal users accounts
  - Request their personal data
- Responsibility:
  - Manage the creation and deletion of admin
  - Manage activities of admin

### Admin:

- People without programming experience who are delegated by the Root Admin to moderate the system once it is online, using a graphical user interface.
- Admins have the following permissions:
  - Create LLIs<sup>[2]</sup>
  - View any user's LLIs<sup>[2]</sup>
  - Edit any user's LLIs<sup>[2]</sup>
  - Delete any user's LLIs<sup>[2]</sup>
  - Delete normal users accounts
  - Request their personal data
- Responsibilities:
  - Manage normal users activities on the system

### Normal Users:

- People who use the app for inspiration, motivation, or to document their goals. These are individuals who have a strong desire to create and accomplish their life goals.
- The normal user role has the following permissions:
  - Create LLIs<sup>[2]</sup>
  - View their LLIs<sup>[2]</sup>
  - Edit their LLIs<sup>[2]</sup>
  - Delete their LLIs<sup>[2]</sup>
  - Request their personal data
  - Delete their account
- Responsibilities:
  - Create and manage personal LLIs<sup>[2]</sup>

### *Who We Cater to*

Our audience mainly consists of adults, who are 21 and older, who are looking for opportunities to accomplish more in their life. Our demographic will initially be current Los Angeles county residents, with expansion opportunities to the rest of California, and eventually the United States.

### *Our Scope*

Initially we will deploy the Lifelog application online as a single page web application, with mobile compatibility. There will be support for the desktop version of **Chrome** on standard display resolution (1920 x 1080), and the mobile version of **Chrome**, as a single page web application. Asynchronous programming techniques will be employed to allow the application to dynamically change; Model-View-Viewmodel architecture, and microservices will be implemented to provide a more coherent flow of code. The app will initially be deployed specifically to **Los Angeles County and its Market**, meaning it will initially **only cover the Pacific time zone**. Lifelog will have potential to expand to the rest of the US market place and cover all US time zones (EST, MST, CST). The supported language will be English. Units of measurement will be US based (Imperial system).Lifelog uses a 12-hour clock.

# Phase 1 Features

## LLI Recommendation Engine<sup>[4]</sup>

The recommendation engine will provide new LLIs<sup>[2]</sup> for users based on the user's LLI<sup>[2]</sup> data. These recommendations are at the heart of Lifelog, enabling users to change their lifestyles by completing new LLIs<sup>[2]</sup>. Recommending new LLIs<sup>[2]</sup> goes hand in hand with lifestyle change, encouraging users to experience new things based on their interests.

### **Feature Details:**

Users will be recommended a new LLI<sup>[2]</sup> when the recommendation engine is activated based on their LLI<sup>[2]</sup> preference data. Users will then have the option to add the recommended LLI<sup>[2]</sup> to their Lifelog, using the LLI<sup>[2]</sup> Creation / Management feature.

- Utilizes the data generated from the user form and the user's LLIs<sup>[2]</sup> pulled from the persistent data store.
- Logs of successes and errors will be recorded on our data store, and archived off of our data store.
- All user types can utilize the Recommendation Engine.
- Users must be logged in to use the recommendation engine.
- Active error handling will inform the user when the recommendation engine encounters an error.
- Users can request the data used to generate their recommendations from the LLIs<sup>[2]</sup> Creations/Management Feature.

# Lifelog Item Creation/Management

LLIs<sup>[2]</sup> are a main component of Lifelog. They allow users to track and plan out the lifestyle changes they want to make.

## **Feature Details:**

When creating a LLI<sup>[2]</sup>, users will have to specify the category of the LLI<sup>[2]</sup>, the deadline of the LLI<sup>[2]</sup>, and have the option to provide a description. LLIs<sup>[2]</sup> must belong to one or more categories, which can be set and modified by the user. These categories are Mental Health, Physical Health, Outdoor, Sport, Art, Hobby, Thrill, Travel, Volunteering, and Food. There are 3 statuses for an LLI<sup>[2]</sup>, “Completed”, “Active”, and “Postponed”; the default status when the LLI<sup>[2]</sup> is created is “Not Completed”. The date created is automatically populated based on the date that the user created the LLI<sup>[2]</sup>. These dates will be based on Pacific Time.

- All LLIs<sup>[2]</sup> will be saved to a persistent data store in the backend.
- Logs of LLI<sup>[2]</sup> actions, successes and failures will be recorded on our persistent data store, and archived off of our data store.
- LLIs<sup>[2]</sup> can be created, deleted, and edited by all user types.
- Users must be logged in to access LLIs<sup>[2]</sup>.
- Active error handling will inform the user if there is an error with the action they attempted on the LLI<sup>[2]</sup>.
- Users can request to view or delete their LLI<sup>[2]</sup> data.

# Lifelog User Creation and Management

Users will be able to register for a Lifelog account. On first login, users will be prompted to fill out an interest form to generate data for the recommendation engine. Creating an account for personal use helps users change their own lifestyle using Lifelog.

## **Feature Details:**

An email, password, and zip code will be needed for account creation. The email must be in a valid format, the password must be between 12 and 50 characters, and the zip code must be a valid 5 digit zip code. After registering, on the first login users, or until the user completes it, they will be prompted to fill out a form. This form will require them to rank the categories of LLI<sup>[2]</sup>. Then users will set a cost cap they are willing to spend on any LLI<sup>[2]</sup>. This form will generate the users seed data that is used by the recommendation engine.

- User accounts will be saved to a permanent data store. The email will not be modifiable upon successful registration, but the password and zip code will be modifiable.
- The default user type of a user would be normal user, and their permissions will follow the permissions of the normal user.
- The user registration, user login, user logout, user password change, and user zipcode change will be logged on success and failure. Then archived off to the data store.
- Active error handling will notify users if errors occur.
- Users can request to view and delete their personal account data. If deleted, all data attached to the user will be permanently removed from the data store.



## Usage Dashboard

Admin and root admin will have access to a usage dashboard that shows user activities across the website. They will use this to monitor the application. Monitoring user activities will ensure users have a better experience overall on the application.

### **Feature Details:**

The usage dashboard will display the successful and failed login attempts, successful and failed registration attempts, the 3 longest page visits, and the 3 most used features. These will be displayed through line charts and bar charts. All of these will be shown over the time spans of 6 months, 12 months, and 24 months.

- The data used for the dashboard will come from the logs in the data store.
- Dashboard access successes and failures will be logged in the data store, and archived off the data store.
- The only user types that can access the dashboard are the admin and root admin user types.
- Active error handling will ensure only authorized users can access the usage dashboard, and inform users of any errors.
- Users have no data to request from this feature.

# Lifelog Calendar

The nature of LLIs<sup>[2]</sup> heavily encourages users to schedule them. The calendar will allow users to interact with their LLIs<sup>[2]</sup> and the LLI's<sup>[2]</sup> attributes in a more meaningful way, helping them plan future activities and visualize when their LLIs<sup>[2]</sup> will be realized.

## **Feature Details:**

LLIs will be shown on the calendar when their status is completed or active. If an LLIs<sup>[2]</sup> completion date has passed, upon viewing the calendar users will be prompted to answer if they have completed the LLI<sup>[2]</sup> or not. Their answer to this question will change the status of the respective LLI<sup>[2]</sup> to active, completed or postponed based on their answer.

If they have not completed an LLI<sup>[2]</sup> past the completion date, they will be prompted to select a new deadline sometime in the future. Users can create LLIs<sup>[2]</sup> on a specific day by interacting with the calendar.

- Any LLI<sup>[2]</sup> will be fetched from the data store in the backend, and the deadline for each LLI<sup>[2]</sup> item may be modified to what the user has on their calendar.
- Logs of calendar based errors will be recorded on our data store, and archived off of our data store.
- All user types can utilize the Lifelog Calendar
- The Lifelog Calendar will have passive error handling
- Users need to be logged in to utilize the Lifelog Calendar
- Users can request the data used to populate their calendar from the LLI<sup>[2]</sup> Creation/Management feature.

## Lifelog Badge

When users hit certain milestones they will receive Lifelog Badges (LLBs<sup>[1]</sup>). This feature motivates users to complete their LLIs<sup>[2]</sup> by providing them with a sense of accomplishment, further enticing them to commit to lifestyle changes.

### **Feature Details:**

Users can obtain for each one of the 10 LLI<sup>[2]</sup> categories. The 3 levels are Beginner, Intermediate, and Pro.

- Beginner: If the user successfully completes 3 LLIs<sup>[2]</sup> in a specific category, they will receive a beginner badge pertaining to that category.
- Intermediate: If the user successfully completes 10 LLIs<sup>[2]</sup> in a specific category, they will receive an intermediate badge pertaining to that category.
- Pro: If the user successfully completes 20 LLIs<sup>[2]</sup> in a specific category, they will receive a pro badge pertaining to that category.

Users can also obtain badges for login streaks. Users will receive the streak badge the first day they log in, each day the user logs in will be recorded, and their maximum login streak will be recorded with the badge.

- Lifelog will keep track of the user's badge progress in the data store and unlock a badge for the user each time they hit a milestone.
- For the login streak badge, Lifelog will track the number of days the user logs in, in a row, in the persistent data store. User's streak will start from 1 again if they fail to login within 24 hours.
- Completing a badge will be logged in the data store, and archived off the data store. The badge statuses will not be modifiable by the user.
- Users of any user types will have access to this feature.
- Passive error handling will be utilized with badges.
- Users have no data to request from this feature.

## Lifelog Reminders

Help users remain engaged on their journey. Reminders take the form of emails, with customizable content and frequency. Reminders will help users stay engaged and ultimately accomplish their LLIs<sup>[2]</sup>, achieving lifestyle change.

### **Feature Details:**

Within feature settings, users can dictate email frequency (weekly, monthly). Feature settings allow users to set an email focus. Focus can be on completed LLI<sup>[2]</sup> or planned LLI<sup>[2]</sup>.

- User email address is fetched from the persistent datastore.
- Users have to be registered to receive reminders.
- Reminder errors will be passively handled.
- Logs of reminder based errors and successes will be recorded on our data store, and archived off the data store.
- Users have no data to request from this feature.

## Media Momentos (Medium)

Enable users to store videos and images from their experiences or events, offering them the opportunity to revisit memories they build with Lifelog. These media mementos from times of accomplishment will help users to stay engaged with the app, committing to more lifestyle changes.

### **Feature Details:**

Media file uploads can be attached to every LLI<sup>[2]</sup>. These media files will be exclusively in the .png or .jpg format for photos, and .mp4 for videos. They are not searchable. Users can upload as many jpg, png, and .mp4 files as they wish, within a 50mb limit per LLI<sup>[2]</sup>, with 1gb storage max per user.

- The media that the users upload will be stored on the AWS standard S3 bucket. This S3 bucket is linked to the user profile in the data store.
- Users need to be logged in to access this feature.
- Users of all user types can have access to this feature.
- Any media upload success and failure will be logged in the data store. Logged data will be later archived off the data store.
- Active error handling will inform users if their media upload fails.
- Users can request all media they have stored with Lifelog.

## Pathfinding for LLI<sup>[2]</sup>

One of the hardest things about doing new things is finding places to do them. Pathfinding will locate venues for users to accomplish LLIs around a provided zip code. Having nearby venues to carry out a LLI<sup>[2]</sup> will help the user follow through with their plans, and make it even easier to commit to lifestyle change.

### **Feature Details:**

Within the pathfinder feature, we will get the zipcode from the user (not their personal zip code), and the category of LLI<sup>[2]</sup> they are looking for. The pathfinder will return between 5/10/15/20 venues based on user choice and zip code. Users will be able to filter how many results they would like, as well as a minimum and maximum range in miles.

- Given a LLI<sup>[2]</sup>, the app will find venues within a radius that the user can choose based on their zip code, the means of finding that specific venue type would be assisted by a drop down menu that would include specific categories and specific subjects that the users LLI<sup>[2]</sup> would entail.
- In order to use pathfinding the user will have to be logged into their account.
- The user entered zip codes will not be collected in our persistent data stores.
- When the user uses the pathfinding LLI<sup>[2]</sup> the action is logged into the data store, the log is archived off the data store.
- Active error handling will be employed to inform the user if the pathfinding feature is not available.
- There is no user data to be requested from this feature, as we are not using the user's zip code.

## Interactive Geospatial Map

Allows users to manually geotag<sup>[3]</sup> their LLIs<sup>[2]</sup>. When geotagged<sup>[3]</sup> the locations will be pinned onto the map, along with metadata like photos, date and time that the users provide when making a pin. This feature provides users with a more engaging and visually appealing way to view their accomplishments but also reinforces their commitment to fulfilling their long-term aspirations.

### **Feature Details:**

User provided geolocation will be used with a maps API<sup>[1]</sup> in order to generate the custom map with pins based on the user input for the location of the LLI<sup>[2]</sup> that they are referring to.

- The geolocations that the user provides will all be stored in a persistent data store and will be archived when the users delete a geotagged LLI<sup>[2]</sup>.
- When adding or removing a pin the action will be logged into the data store. The logs will be archived off the data store.
- The users will need to be logged in in order to use the interactive geospatial map.
- When a pin is created the instance will be logged and stored in the data store. For the case when a location cannot be found through the API we will let the users know that the location could not be found.
- The users can request their data regarding the geolocations of both existing and deleted pins.

## Cost Estimation Tool

Estimating the cost for our users will help them to plan to accomplish their LLI<sup>[2]</sup>. Cost estimation will provide an estimation of how much it will cost to complete the user's LLI<sup>[2]</sup> based on the general cost of items in the LLIs<sup>[2]</sup> category. Setting conceivable goals is integral to Lifelogs value, as achievable goals are the building blocks for lifestyle change.

### **Feature Details:**

The estimated cost of an LLI<sup>[2]</sup> provided by the tool will be the average cost of LLIs<sup>[2]</sup> in its category. This cost will be fetched from a table of average costs of common LLIs<sup>[2]</sup> in the persistent data store. If the LLI<sup>[2]</sup> belongs to multiple categories, we will average the cost of those categories.

- Users will have the option to add the cost estimation to the LLI<sup>[2]</sup>.
- When a cost estimation is done, the activity will be logged on the persistent data store, then archived off the data store.
- All user types can use the cost estimation tool
- Users need to be logged in to use the feature.
- The cost estimation tool uses active error handling to inform the user if the tool is not available.



## Motivational quote

Motivational quotes will inspire users to engage with the app more frequently, boosting interest and retention. Moreover, these uplifting quotes will foster a positive and motivational atmosphere within the app, encouraging users to continue on their lifestyle change journey with Lifelog.

### **Feature Details:**

- A daily quote would be stored in the persistent data store where the quote would be dispensed to the user.
- Motivational quote request successes and failures will be logged in the persistent data store, and archived off the data store.
- Since this feature does not require the user to be logged in to an account, any visitor can see the motivational quote.
- If the application fails to pull the quotes from the data store, it will show placeholder text indicating that there is no quote at the moment, employing active error handling.

## **Phase 2 Features**

### **User Harm Prevention**

If a user's LLI<sup>[2]</sup> title contains words related to self harm, users will be prompted directly to 211.org's mental health category, as well as recommended to dial 211 and their local mental health helpline. Users will be prompted to enter their zip code with account registration, this zip code will be autofilled into 211's website to find their local 211, and users will have the opportunity to visit 211 to view their local number conveniently presented to them. The user will consistently be suggested to access 211 until the self-harm LLI<sup>[2]</sup> is removed.

### **Career Change Path**

There will be a new category called Career Change. If the user's LLI<sup>[2]</sup> is in this category, the application will generate a planned out path towards that career. This path will lay out any certificates or training that the user has to work towards in order to make the change, as well as some information about the new career. All jobs that are available on the public dataset of the Bureau of Labor Statistics will be available to choose from for the user's career change.

### **Personal LLI Note**

A personal note attached to an individual LLI<sup>[2]</sup>, where users can write down their thoughts regarding the LLI<sup>[2]</sup>. The note is a means for the user to keep text attached to a LLI<sup>[2]</sup> for their own personal use. Allowing users to attach notes to each LLI<sup>[2]</sup> can help them organize the information provided to them by the Pathfinding feature, as well as any other brief thoughts they have surrounding the item. They can also conveniently leave notes after the event is completed, creating a unique way for users to attach their thoughts to their events specifically.

## Donation Drive

A non-profit for LifeLog with the sole purpose of promoting user's to donate through LifeLog in support of drives that work against suicide as well as the prevention/rehabilitation of drug use/abuse along with other charities that work towards saving lives such as *Save the Children* foundation. There will be a viewing platform that allows users to browse supported charity organizations along with a brief description of what that organization's goal is, along with that we will provide a valid link to those charities where users can find more information as well as donate towards that program.

## Location recommendation

If the description of the LLI<sup>[2]</sup> contains some type of physical environment, the user will get a thorough description of that environment. Additionally, the user will get a recommendation of locations near them that fit that environment, with the average prices of hotels and homes in those locations. This personalized approach aims to inspire users to immerse themselves in that environment, and encourage them to make the life-changing decision of physical relocation.