Lifelog Business Requirements Document

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Team Name:

Peace

Team Members:

Devin Kothari (Team Lead)
Phong Cao
Jack Pickle
Zarif Shams
Yoshiki Yarlagadda

Link to GitHub Repository

https://github.com/Peace491/Life-Log

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Product-Wide 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**. The app will initially be deployed specifically to **Los Angeles County**, meaning it will initially **only cover the Pacific time zone**. Lifelog can potentially expand to the rest of the US market place and cover all US time zones (EST, MST, CST). The supported language will be American English. Units of measurement will be US based (Imperial system). Lifelog uses a 12-hour clock. No direct user to user communication in Lifelog.

Distinct User Types

Root Admin:

- This role is initialized with the system.
- There is only one Root Admin.
- The Root Admin has the following permissions in the persistent data store:
    - Create: The Root Admin has unrestricted table create access
    - Delete: The Root Admin has unrestricted table delete access
    - Read: The Root Admin has unrestricted table read access
    - Write: The Root Admin has unrestricted table write access
- The Root Admin's responsibility is to delegate Admin permissions to admin users.

Admin:

- This role is delegated by the Root Admin to moderate the system once it is online.
- There can be many Admin users.
- The Admin role has the following permissions in the persistent data store:
    - Create: The Admin does not have table create access
    - Delete: The Admin does not have table delete access
    - Read: The Admin has unrestricted table read access
    - Write: The Admin has unrestricted table write access
- The responsibility of an Admin is to utilize the usage dashboard to monitor activity of Normal Users and identify issues with the application

Normal User:

- People who use the app for inspiration, motivation, or to document their goals.
- There can be many Normal User type users
- This role will be granted to any user who has registered an account for the application. They will need to be authenticated to have access to their permissions.
- The Normal User role has the following permissions in the persistent data store:
    - Create: Normal User does not have table create access
    - Delete: Normal User can delete their own user data
    - Read: Normal User can read their own user data
    - Write: Normal User can write to their own user data
- The responsibility of a Normal User is to manage personal LLIs[3].

Anonymous User:

- People who access the application without being authenticated.
- The Anonymous User role has the following permissions in the persistent data store:
    - Create: Anonymous User does not have table create access
    - Delete: Anonymous User does not have table delete access
    - Read: Anonymous User cannot read their own user data
    - Write: Anonymous Users cannot write to their own data
- This role will be granted to any user who visits the website.
- The responsibility of an Anonymous User is to preview the application and register for a Normal User account.

Roles and Responsibilities Matrix

User Stories	Root Admin	Admin	Normal User	Anonymous User
RE1	X	X	X	
RE2	X	X	X	
LLI1	X	X	X	
LL2	X	X	X	
LL3	X	X	X	
LLU1				X
LLU2	X	X	X	
LLU3	X	X	X	
LLU4	X	X	X	
LLU5	X	X	X	
LLU6				X
LLU7	X	X	X	
UD1	X	X		
LC1	X	X	X	
LC2	X	X	X	
LC3	X	X	X	
LB1	X	X	X	
LB2	X	X	X	
LB3	X	X	X	
LR1	X	X	X	
LR2	X	X	X	
LR3	X	X	X	

MM1	X	X	X	
MM2	X	X	X	
MM3	X	X	X	
P1	X	X	X	
IGM1	X	X	X	
IGM2	X	X	X	
IGM3	X	X	X	
IGM4	X	X	X	
IGM5	X	X	X	
CET1	X	X	X	
CET2	X	X	X	
MQ1	X	X	X	X

Product and Feature Behaviors

Lifelog User Management

LLU1 User Story[17]: Register Account

As an anonymous user, I can register an account within the Lifelog system to begin my life change journey.

Effort Points (Hour) - 50 points

User Input

Required Input

- Email
    - Must be in the xxxx@xxxx.xxx format
    - Must not be in used by any other Lifelog account
- Password
    - Must be between 8-20 characters long
    - Must include a combination of letters, numbers, and special characters within the unicode character set
- Zip Code
    - Must be a valid 5 digit zip code within LA County, see Data Source

Data Source

Origin

- External

Type

- Snapshot

Details

- Link:

https://geohub.lacity.org/datasets/71b2fed2c1f24fc8850f5b7f8d2a320a_26/

- The link contains a downloadable CSV of all zip codes within LA County, this will be stored in the persistent data store

AuthN

- None, publicly available data

App Permissions

- Permission: Write
- Scope: Lifelog User Account

Target Audience - Unauthenticated Anonymous Users

Pre-conditions

1. The user is on the Sign Up View

Success Outcome(s)

- The new user account is saved in the persistent data store
- All inputs meets validation requirements in the User Input section
- The new user account is created within 3 seconds of the user initializing the create account action
- A message informing the user that their registration was successful is displayed, after the registration was successful
- A message informing the user that their registration was not successful is displayed, after the registration was not successful
- The create account operation is logged in the persistent data store
- The log includes the following:
  - Timestamp
    - When the account credentials are submitted
    - When the account validated in the persistent data store
  - Log type (Success)

- ○ A message that a user was registered with the user provided email
- The log is archived off of the data store

Failure Outcome(s)
- The new user account is not saved in the persistent data store
- All inputs do not meets validation requirements in User Input section
- The new user account is created within 3 seconds of the user initializing the create account action
- A message informing the user that their registration was successful is not displayed, after the registration was successful
- A message informing the user that their registration was not successful is not displayed, after the registration was not successful
- A message indicating that the server is not available is displayed if the server can not be reached by the user
- The operation is not logged in the persistent data store
- The fail log includes the following:
  - ○ Timestamp
    - ■ When the account credentials are submitted
    - ■ When the account validated in the persistent data store
  - ○ Log type (Failure)
  - ○ A message that a user failed to register
- The log is not archived off of the data store

LLU2 User Story[17]: User Form[16]

As an authenticated user, upon my first sign-in, I can rank the 10 categories of LLI[3] in order of preference to personalize my recommendation engine's recommendations.

Effort Points (Hour) - 50 points

User Input

Required Input

- Rankings of the following categories in relation to each other:
  - The categories to be ranked are "Mental Health[5]", "Physical Health[6]", "Outdoor[7]", "Sport[8]", "Art[9]", "Hobby[10]", "Thrill[11]", "Travel[12]", "Volunteering[13]", and "Food[14]"
- Each category must have a unique ranking
- The rank for a category must be a numerical value between 1-10

App Permissions

- Permission: Read and Write
- Scope: Lifelog User Account

Target Audience - Authenticated Normal User logging in for the first time

Pre-conditions

1. The user is registered
2. The user is authenticated
3. The authenticated user is signed in for the first time

Success Outcome(s)

- The user rankings are saved in the persistent data store
- The user rankings are added to the user's account in the persistent data store
- All inputs meets validation requirements in User Input section
- A message indicating that the user rankings were saved is displayed, after the

user rankings were saved
- A message indicating that the user rankings failed to save is displayed, after the user rankings were not saved
- The user rankings is saved to the persistent data store within 3 seconds of the form submission
- A log of the operation is saved to the persistent datastore
- The log includes the following:
  - Timestamp
    - When the user rankings is submitted
    - When the user rankings are saved on persistent data store
  - Log type (Success)
  - A message that the user has completed their user form[16]
- The log is archived off of the persistent data store

Failure Outcome(s)
- The user rankings are not saved in the persistent data store
- The user rankings are not added to the user's account in the persistent data store
- All inputs do not meets validation requirements in User Input section
- A message indicating that the user rankings were saved is not displayed, after the user rankings were saved
- A message indicating that the user rankings failed to save is not displayed, after the user rankings were not saved
- A log of the completion of the user rankings is not saved in the persistent data store
- The fail log includes the following:
  - Timestamp
    - When the user rankings is submitted
    - When the failure occurred in the form operation
  - Log type (Failure)

- - A message that an error occurred
- The log is not archived off of the persistent data store

LLU3 User Story[17]: Manage Account

As an authenticated user, I can edit my Lifelog account to manage my personal information within the application.

Effort Points (Hour) - 50 points

User Input

Optional Input

- Password
  - Must input previous password to change password
  - New password must be between 8-20 characters long
  - New password must include a combination of letters, numbers, and special characters within the unicode character set
  - The default value is null, meaning the password will not be change
- Zip Code
  - Must be valid 5 digit zip code within California, see Data Source in LLU1
  - The default value is the current zip code
- LLI[3] categories rankings
  - The categories that can be ranked are "Mental Health[5]", "Physical Health[6]", "Outdoor[7]", "Sport[8]", "Art[9]", "Hobby[10]", "Thrill[11]", "Travel[12]", "Volunteering[13]", and "Food[14]"
  - The rankings must be unique among all categories
  - The rank for a category must be a numerical value between 1-10
  - The default value is the current ranking

App Permissions

- Permission: Read and Write
- Scope: Lifelog User Account

Target Audience - All authenticated Normal User

Pre-conditions

1. The user is registered
2. The user is authenticated
3. The authenticated user is in the User Profile view

Success Outcome(s)

- All inputs meets validation requirements in User Input section
- Changes, if any, to the user password is saved in the relational database
- Changes, if any, to the zip code is saved in the relational database
- Changes, if any, to the LLI[3] categories rankings is saved in the relational database
- Changes to the details, if any, are saved in the data store within 3 seconds
- A message indicating that the user's account information was updated is displayed, if the user's account information was updated
- A message indicating that the user's account information failed to update is displayed, if the user's account information was not updated
- The operation is logged in the data store
- The following is included in the log:
  - Timestamp
    - When the account changes are submitted
    - When the changes are saved on persistent data store
  - Log type (Success)
  - A message that the user made changes to one or many part of their profile, indicating the part(s) changed
- The log is archived off of the persistent data store

Failure Outcome(s)

- All inputs do not meets validation requirements in User Input section

- Changes, if any, to the user password is not saved in the relational database
- Changes, if any, to the zip code is not saved in the relational database
- Changes, if any, to the LLI[3] categories rankings is not saved in the relational database
- Changes to the details, if any, are not saved in the data store within 3 seconds
- A message indicating that the user's account information was updated is not displayed, if the user's account information was updated
- A message indicating that the user's account information failed to update is not displayed, if the user's account information was not updated
- The operation is not logged in the persistent data store
- The fail log includes the following:
  - Timestamp
    - When the account changes are submitted
    - When the failure occurs in the account management process
  - Log type (Failure)
  - A message indicating the type of change that the user was trying to make to one or many part(s) of their profile, indicating the attempted changes
- The log is not archived off of the data store

LLU4 User Story[17]: Delete Account

As an authenticated user, I can delete my Lifelog account to remove all my personal data from the application

Effort Points (Hour) – 50 points

App Permissions
- Permission: Delete
- Scope: Lifelog User Account

Target Audience – All authenticated Normal User

Pre-conditions
1. The user is registered
2. The user is authenticated
3. The authenticated user is in the User Profile view

Success Outcome(s)
- The user account is deleted from the relational database
- All data related to the user is deleted from the relational database
- The user account is deleted within 3 seconds
- A message saying the account was deleted is displayed, if the account was deleted
- A message saying the account failed to be deleted is displayed, if the account was not deleted
- The operation is logged in the persistent data store
- The following is included in the log:
  - Timestamp
    - When the account deletion request is submitted

- - ■ When the account is successfully deleted
  - ○ Log type (Success)
  - ○ A message that the user deleted their account
- The log is archived off of the data store

Failure Outcome(s)
- The user account is not deleted from the relational database
- All data related to the user is not deleted from the relational database
- The user account is not deleted within 3 seconds
- A message saying the account was deleted is not displayed, if the account was deleted
- A message saying the account failed to be deleted is not displayed, if the account was not deleted
- The operation is not logged in the persistent data store
- The fail log includes the following:
  - ○ Timestamp
    - ■ When the account deletion request is submitted
    - ■ When the failure occurs in the account deletion process
  - ○ Log type (Failure)
  - ○ A message that the user deleted their account
- The log is archived off of the persistent data store

LLU5 User Story[17]: View PII

As an authenticated user, I can request to view my personal identifiable information data that the system has collected, to be in control of my data

Effort Points (Hour) – 50 points

App Permissions
- Permission: Read
- Scope: Lifelog User Account

Target Audience – All authenticated Normal User

Pre-conditions
1. The user is registered
2. The user is authenticated
3. The authenticated user is in the User Profile view

Success Outcome(s)
- All Personally Identifiable Information(PII) data that the system has collected from the user in the data store is sent as an email to the user
- A message saying the user data was successfully requested is displayed, if their data was successfully requested
- A message saying the user data failed to be requested is displayed, if their data was not successfully requested
- The operation is logged in the persistent data store
- The following is included in the log:
  - Timestamp
    - When the PII data is requested to be viewed
    - When the PII request process is finished

- ○ Log type (Success)
  - ○ A message that the user, identified by email, requested their PII
- The log is archived off of the data store

Failure Outcome(s)
- All PII data that the system has collected from the user in the data store is not sent as an email to the user
- A message saying the user data was successfully requested is not displayed, if their data was successfully requested
- A message saying the user data failed to be requested is not displayed, if their data was not successfully requested
- The operation is not logged in the persistent data store
- The fail log includes the following:
  - ○ Timestamp
    - ■ When the PII data is requested to be viewed
    - ■ When the failure occurs in the PII request process
  - ○ Log type (Failure)
  - ○ A message that the user, identified by email, requested their PII
- The log is not archived off of the data store

LLU6 User Story[17]: Delete PII

As an authenticated user, I can request to delete my personal identifiable information data that the system has collected, to be in control of my data

Effort Points (Hour) – 50 points

App Permissions
- Permission: Delete
- Scope: Lifelog User Account

Target Audience – All authenticated Normal User

Pre-conditions
1. The user is registered
2. The user is authenticated
3. The authenticated user is in the User Profile view

Success Outcome(s)
- The user's PII data is deleted from the persistent data store
- A message saying the user data was successfully requested for deletion is displayed, if the user data was successfully requested for deletion
- A message saying the user data failed to be requested for deletion is displayed, if the user data was not successfully requested for deletion
- The operation is logged in the persistent data store
- The following is included in the log:
  - Timestamp
    - When the user's PII data is requested to be deleted
    - When the user's PII is deleted from the persistent data store
  - Log type (Success)

- ○ A message that the user requested deletion of their PII
  - The log is archived off of the persistent data store

Failure Outcome(s)
- The user's PII data is not deleted from the persistent data store
- A message saying the user data was successfully requested for deletion is not displayed, if the user data was successfully requested for deletion
- A message saying the user data failed to be requested for deletion is not displayed, if the user data was not successfully requested for deletion
- The operation is not logged in the data store
- The fail log includes the following:
  - ○ Timestamp
    - ■ When the user's PII data is requested to be deleted
    - ■ When the failure occurs in the PII deletion process
  - ○ Log type (Failure)
  - ○ A message that the user requested deletion of their PII
- The log is not archived off of the persistent data store

LLU7 User Story[17]: Reset Password

As an unauthenticated user, I can reset my password using my email address to regain control of my Lifelog user account

Effort Points (Hour) - 50 points

User Input

Required Input
- New Password
    - Must be between 8-20 characters long
    - Must include a combination of letters, numbers, and special characters within the unicode character set

App Permissions
- Permission: Write
- Scope: Lifelog User Account

Target Audience - All unauthenticated user who has a Normal User account

Pre-conditions
1. The user is registered
2. The unauthenticated user is in the Login Page
3. The unauthenticated user clicks on the Reset Password link

Success Outcome(s)
- An email is sent to the user's email address with a link to the reset password web page
- The new password meets the validation requirements in User Input section
- The new password is saved to the user account on the persistent data store

- The password is changed in the data store within 3 seconds
- A message saying the password was successfully updated is displayed to the user, if the new password was successfully updated
- A message saying the password failed to be updated is displayed to the user, if the password was not successfully updated
- The operation is logged in the persistent data store
- The following is included in the log:
    - Timestamp
        - When the user's password is requested to be changed
        - When the user's password change process is finished
    - Log type (Success)
    - A message that the user has requested a user account password reset
- The log is archived off of the persistent data store

Failure Outcome(s)
- An email is not sent to the user's email address with a link to the reset password web page
- The new password does not meet the validation requirements in User Input section
- The new password is not saved to the user account on the persistent data store
- The password is not changed in the data store within 3 seconds
- A message saying the password was successfully updated is not displayed to the user, if the new password was successfully updated
- A message saying the password failed to be updated is not displayed to the user, if the password was not successfully updated
- The operation is not logged in the persistent data store
- The fail log includes the following:
    - Timestamp
        - When the user's password is requested to be changed
        - When the user's password change process fails to finish

- - Log type (Failure)
  - Where the password change process failed, and for what user
- The log is not archived off of the persistent data store

Usage Dashboard

UD1 User Story[17]: View Dashboard

As an authenticated and authorized admin or root admin user, I can view a dashboard displaying the successful and failed login attempts, successful and failed registration attempts, the 3 longest page visits, and the 3 most used features, over the time spans of 6 months, 12 months, and 24 months, to monitor Normal User activities on the application.

Effort Points (Hour) – 50 points

App Permissions
- Permission: Read
- Scope: Usage Dashboard

Target Audience – Root Admin and Admin user types

Pre-conditions
1. The user is authenticated
2. The authenticated user is authorized as an admin or root admin
3. The user is on the usage dashboard view

Success Outcomes
- All the following is displayed over a time span of 6 months, 12 months, and 24 months:
    - The successful and failed login attempts
    - The successful and failed registration attempts
    - The 3 longest page visits
    - The 3 most used features

- The usage dashboard is loaded within 3 seconds
- If failure occurs, the user of the usage dashboard is informed of the error with an error message
- Dashboard access is logged in persistent data store
- The following is included in the log:
  - Timestamp
    - When the user accesses dashboard
    - When the dashboard is loaded
  - Log type (Success)
  - The user, and the fact they are utilizing the dashboard
- The log is archived off of the data store

Failure Outcomes
- All the following is not displayed over a time span of 6 months, 12 months, and 24 months:
  - The successful and failed login attempts
  - The successful and failed registration attempts
  - The 3 longest page visits
  - The 3 most used features
- The usage dashboard is not loaded within 3 seconds
- If failure occurs, the user of the usage dashboard is not informed of the error with an error message
- Dashboard access is not logged in persistent data store
- The fail log includes the following:
  - Timestamp
    - When the user accesses dashboard
    - When the failure occurs in the usage dashboard
  - Log type (Failure)
  - The user, and the where the error happened in the dashboard
- The log is not archived off the persistent data store

Lifelog Item (LLI) Management

LLI1 User Story[17]: Create LLI[3]

As an authenticated user, I can create one LLI[3] at a time to track my life change progress.

Effort Points (Hour) - 100 points

User Input

Required Input

- Title of LLI[3]
    - Must only contains alphanumeric values between 1-50 characters long
- Category/Categories of LLI[3]
    - The valid options are "Mental Health[5]", "Mental Health[5]", "Physical Health[6]", "Outdoor[7]", "Sport[8]", "Art[9]", "Hobby[10]", "Thrill[11]", "Travel[12]", "Volunteering[13]", and "Food[14]"

Optional Input

- Description of LLI[3]
    - Must consist only of alphanumeric values between 0-200 characters long
    - Default to null
- Status of LLI[3]
    - The valid options are "Active", "Completed", "Postponed"
    - Default to "Active"
- Visibility of LLI[3]
    - The valid options are "Public, Private"
    - Default to "Public"
- Deadline of LLI[3]

- ○ Must be a valid date in the format MM/DD/YYYY
- ○ The date must be between 01/01/1900 and 12/31/2100
- ○ Default to null
- Cost of LLI[3]
  - ○ Must be a numerical value greater or equal to 0
  - ○ Default to null

App Permissions –
- Permission: Write
- Scope: LLI[3]

Target Audience – All authenticated Normal User

Pre-conditions
1. The user is registered
2. The user is authenticated
3. The authenticated user is in the LLI[3] Management view

Success Outcomes
- The new LLI[3] is saved to the relational database
- The new LLI[3] is added to the authenticated user's account in the relational database
- All inputs meets validation requirements in User Input section
- A LLI[3] template containing the new LLI[3] information is shown in the LLI[3] Management View
- The new LLI[3] is saved to the persistent data store within 3 seconds of the user initializing the create action
- A message saying the LLI[3] has been created is displayed to the user, if the LLI[3] has been created
- A message saying the LLI[3] fails to be created is displayed to the user, if the LLI[3]

fails to be created

- The LLI[3] creation is logged in the persistent data store
- The following is included in the log:
    - Timestamp
        - When the LLI[3] is created
        - When the LLI[3] is stored in persistent data store
    - Log type (Success)
    - A message that the user created a LLI[3]
- The log is archived off of the persistent data store

Failure Outcomes
- The new LLI[3] is not saved to the relational database
- The new LLI[3] is not added to the authenticated user's account in the relational database
- All inputs do not meets validation requirements in User Input section
- A LLI[3] template containing the new LLI[3] information is not shown in the LLI[3] Management View
- A message saying the LLI[3] has been created is not displayed to the user, if the LLI[3] has been created
- A message saying the LLI[3] fails to be created is not displayed to the user, if the LLI[3] fails to be created
- The new LLI[3] is not saved to the persistent data store within 3 seconds of the user initializing the create action
- The LLI[3] creation is not logged in the persistent data store
- The failure log includes the following:
    - Timestamp
        - When the LLI[3] is created
        - When the LLI[3] failed to store in persistent data store
    - Log type (Failure)
    - A message that the user created a LLI

- The log is not archived off of the persistent data store

LLI2 User Story[17]: Delete LLI[3]

As an authenticated user, I can delete one LLI[3] at a time to remove a prospective life change, to stay focused on my personally attainable LLI[3]

Effort Points (Hour) – 100 points

App Permissions
- Permission: Write
- Scope: LLI[3]

Target Audience – All authenticated Normal User

Pre-conditions
1. The user is registered
2. The user is authenticated
3. The authenticated user is in the LLI[3] Management view

Success Outcome(s)
- The LLI[3] is removed from the relational database
- The LLI[3] is removed from the authenticated user's account in the relational database
- The LLI[3] template containing the LLI[3] information is no longer shown in the LLI[3] Management View
- The new LLI[3] is deleted from the persistent data store within 3 seconds of the user initializing the delete action
- A message saying the LLI[3] has been deleted is displayed to the user, if the LLI[3] has been deleted
- A message saying the LLI[3] fails to be deleted is displayed to the user, if the LLI[3] fails to be deleted

- The delete operation is logged in the persistent data store
- The following is included in the log:
  - Timestamp
    - When the LLI[3] deletion request is submitted
    - When the LLI[3] deletion request is successfully deleted
  - Log type (Success)
  - A message that the user deleted their LLI[3]
- The log is archived off of the data store

Failure Outcome(s)
- The LLI[3] is not removed from the relational database
- The LLI[3] is not removed from the authenticated user's account in the relational database
- The LLI[3] template containing the LLI[3] information is still shown in the LLI[3] Management View
- The new LLI[3] is not deleted from the persistent data store within 3 seconds of the user initializing the delete action
- A message saying the LLI[3] has been deleted is not displayed to the user, if the LLI[3] has been deleted
- A message saying the LLI[3] fails to be deleted is not displayed to the user, if the LLI[3] fails to be deleted
- The delete operation is not logged in the persistent data store
- The failure log includes the following:
  - Timestamp
    - When the account deletion request is submitted
    - When the failure occurs in the account deletion process
  - Log type (Failure)
  - A message that the user deleted their account
- The log is not archived off of the persistent data store

LLI3 User Story[17]: Edit LLI[3]

As an authenticated user, I can edit one LLI[3] at a time to manage my life change details, ensuring my goal setting is accurate.

Effort Points (Hour) – 150

User Input

Optional Input

- LLI[3] title
    - Must only contain alphanumeric values
    - Must be between 1-50 characters long
    - Default value is current title
- Category/Categories of LLI[3]
    - The valid options are "Mental Health[5]", "Physical Health[6]", "Outdoor[7]", "Sport[8]", "Art[9]", "Hobby[10]", "Thrill[11]", "Travel[12]", "Volunteering[13]", and "Food[14]"
    - Default value is the current category/categories
- Description of LLI[3]
    - Must consist only of alphanumeric values between 0-200 characters long
    - Default value is the current description
- Status of LLI[3]
    - The valid options are "Active", "Completed", "Postponed"
    - Default value is the current status
- Visibility of LLI[3]
    - The valid options are "Public, Private"
    - Default value is the current visibility
- Deadline of LLI[3]
    - Must be a valid date in the format MM/DD/YYYY

- - The date must be between 01/01/1900 and 12/31/2100
    - Default value is the current deadline
  - Cost of LLI[3]
    - Must be a numerical value greater or equal to 0
    - Default cost is the current cost

App Permissions
- Permission: Write
- Scope: LLI[3]

Target Audience - All authenticated Normal User

Pre-conditions
1. The user is registered
2. The user is authenticated
3. The authenticated user is in the LLI[3] Management view

Success Outcome(s)
- Changes, if any, to the LLI[3] attributes are reflected in the relational database
- Changes, if any, are saved to the persistent data store within 3 seconds of the user initializing the change action
- All inputs meets validation requirements in User Input section
- The LLI[3] view containing the LLI[3] information reflects the changes, if any
- A message saying the user changes were saved is displayed, if the user changes were saved
- A message saying the user changes failed to saved is displayed, if the user changes failed to saved
- The edit operation is logged in the persistent data store
- The following is included in the log:
  - Timestamp
    - When the LLI[3] edit request is submitted

- - - When the LLI[3] edit request is successfully completed
  - ○ Log type (Success)
  - ○ A message that the user deleted their LLI[3]
- The log is archived off of the persistent data store

Failure Outcome(s)
- Changes, if any, to the LLI[3] attributes are not reflected in the relational database, and not reflected in the LLI[3] template
- Changes, if any, are not saved to the persistent data store within 3 seconds of the user initializing the change action
- All inputs do not meets validation requirements in User Input section
- The LLI[3] view containing the LLI[3] information does not reflect the changes, if any
- A message saying the user changes were saved is not displayed, if the user changes were saved
- A message saying the user changes failed to saved is not displayed, if the user changes failed to saved
- The edit operation not is logged in the persistent data store
- The failure log includes the following:
  - ○ Timestamp
    - ■ When the LLI[3] edit request is submitted
    - ■ When the LLI[3] edit operation fails
  - ○ Log type (Fail)
  - ○ A message that the user deleted their LLI[3]
- The log is not archived off of the persistent data store

LLI Recommendation Engine[4]

RE1 User Story[17]: Get LLI[3] Recommendation

As an authenticated user, I can use the recommendation engine to have 5 LLI[3] recommended to me based on scores generated from only survey results and past LLI[3] to view.

Effort Points (hours) – 250

App Permissions
- Permission: Read and Write
- Scope: Lifelog User Account

Target Audience - All authenticated normal user(s)

Pre-conditions –
1. The user is registered
2. The user is authenticated
3. The authenticated user has completed the user form[16]
4. The authenticated user is on the "Recommendation Engine" view

Success Outcomes
- Recommended LLI[3] title must be an alphanumeric string of characters of length 1–50
- Recommended LLI[3] must belong to at least one of ten LLI[3] categories
  - The valid category/categories are "Mental Health[5]", "Physical Health[6]", "Outdoor[7]", "Sport[8]", "Art[9]", "Hobby[10]", "Thrill[11]", "Travel[12]", "Volunteering[13]", and "Food[14]"
- Recommended LLIs[3] title and status must exist together as an item in the

persistent datastore of public LLI[3]

- The 5 recommended LLI[3] will be of correct categories, meaning:
  - 2 LLIs[3] will have the category of the user's highest rated category according to category's score
  - 1 LLI[3] will have the category of the most common category in public user's LLI[3]
  - 1 LLI[3] will have the category of the second highest scoring category
  - 1 LLI[3] will have the category of any category excluding the 2 highest scoring categories
- A LLI[3] of a category is not recommended if the category's score is below 2
- A LLI[3] is not recommended if an LLI[3] with the same title has been set as complete by the user, within a year from today's date
- 5 LLI[3] are pulled from the persistent data store
- 5 LLI[3] are recommended within 3 seconds
- A message saying something went wrong with the recommendation engine is displayed to the user, if any error occurs
- The recommendation engine operation is logged to the persistent data store
- The following is included in the log:
  - Timestamp
    - When the recommendation engine operation is started
    - When the recommendation engine operation has completed
  - Log type (Success)
  - The user, and their utilization of the recommendation engine
- The log is archived off of the persistent data store

Failure Outcomes
- Recommended LLI[3] title is not an alphanumeric string of characters of length 1–50
- Recommended LLI[3] does not belong to at least one of ten LLI[3] categories
- Recommended LLIs[3] title and status do not exist together in an item in the

persistent datastore of public LLI[3]

- A LLI[3] is recommended if an LLI[3] with the same title has been set as complete by the user within a year from today's date
- The 5 recommended LLI[3] are not of the correct categories, meaning they do not follow these rules:
    - 2 LLIs[3] will have the category of the user's highest rated category according to category's score
    - 1 LLIs[3] will have the category of the most common category in public user's LLI[3]
    - 1 LLIs[3] will have the category of the second highest scoring category
    - 1 LLIs[3] will have the category of any category excluding the 2 highest scoring categories
- A LLI[3] is recommended with a category scoring lower than 2
- 5 LLI[3] are not pulled from the persistent data store
- 5 LLI[3] are not recommended within 3 seconds
- A message saying something went wrong with the recommendation engine is not displayed to the user, if any error occurs
- The LLI[3] recommendation operation is not logged to the persistent data store
- The failure log includes the following:
    - Timestamp
        - When the recommendation engine operation is started
        - When the recommendation engine operation error occurs
    - Log type (Failure)
    - A message that the user used recommendation engine
- The log is not archived off of the persistent data store

RE2 User story[17]: Add Recommended LLI[3]

As an authorized user, I can add as many LLI[3] as I want that are recommended by RE1 to my account, saving them as a personal goal.

Effort Points (hours) - 100

User Input

Optional Input

- Modification of LLI[3] title
  - Must only contain alphanumeric values
  - Must be between 1-50 characters long
  - Default value is the title of the referenced LLI[3]
- Category/Categories of LLI[3]
  - The valid options are "Mental Health[5]", "Physical Health[6]", "Outdoor[7]", "Sport[8]", "Art[9]", "Hobby[10]", "Thrill[11]", "Travel[12]", "Volunteering[13]", and "Food[14]"
  - Default value is the category of the referenced LLI[3]
- Description of LLI[3]
  - Must consist only of alphanumeric values between 0-200 characters long
  - Default value is null
- Status of LLI[3]
  - The valid options are "Active", "Completed", "Postponed"
  - Default to "Active"
- Visibility of LLI[3]
  - The valid options are "Public, Private"
  - Default to "Public"
- Deadline of LLI[3]
  - Must be a valid date in the format MM/DD/YYYY

- - The date must be between 01/01/1900 AD and 12/31/2100 AD
    - Default deadline is null
  - Cost of LLI[3]
    - Must be a numerical value greater or equal to 0
    - Default cost is null

Pre-conditions -
1. The user is registered
2. The user is authenticated
3. The authenticated user has activated the recommendation engine

App Permissions
- Permission: Write
- Scope: Lifelog User Account

Target Audience - All authenticated normal users

Success Outcomes
- A new LLI[3] is saved to the persistent data store
- The new LLI[3] is added to the authenticated user's account in the relational database
- All inputs meets validation requirements in User Input section
- The LLI[3] is saved within 3 seconds
- A message saying the LLI[3] had been added to the user account is displayed, if the LLI was added to the user account
- A message saying the LLI[3] failed to be added to the user account is displayed, if the LLI failed to be added to the user account
- The add recommendation LLI[3] operation is logged in the persistent data store
- The following is included in the log:
    - Timestamp

- When the recommended LLI[3] is created
- When the recommended LLI[3] is stored in persistent data store
- Log type (Success)
- A message that the user added recommendation engine LLI[3]
- The log is archived off of the persistent data store

Failure Outcomes
- The new LLI[3] is not saved to the persistent data store
- A input do not meet validation requirements in User Input section
- The user is not informed that their LLI[3] has been added
- A message saying the LLI[3] had been added to the user account is not displayed, if the LLI was added to the user account
- A message saying the LLI[3] failed to be added to the user account is not displayed, if the LLI failed to be added to the user account
- The add recommendation LLI[3] operation is not logged in the persistent data store
- The failure log includes the following:
  - Timestamp
    - When the recommended LLI[3] is created
    - When the recommended LLI[3] fails to store in persistent data store
  - Log type (Failure)
  - A message that the user added a LLI[3] from the recommendation engine
- The log is archived off of the persistent data store

Lifelog Calendar

LC1 User Story[17]: View Calendar

As an authenticated user, I can filter the calendar by month to visualize my LLI[3], and understand when in time they are located.

Effort Points (Hour) – 100 points

User Input

Optional Input

- Time period filter
    - Month (of 12 calendar months)
    - Year (1900–2100 AD)
    - Default value: Current system Month/Year

App Permissions

- Permission: Read
- Scope: Lifelog User Account

Target Audience – All authenticated normal users

Pre-conditions

1. The user is registered
2. The user is authenticated
3. The authenticated user is on the calendar view

Success Outcomes

- The calendar populates with LLI[3] on their respective deadlines, provided they are within the user's calendar filter

- The calendar visually represents the filter input, defined in the User Inputs
- The calendar is filtered and visualized with LLI[3] on their respective deadlines within 3 seconds
- The user viewing their LLI[3] in calendar is logged in the persistent data store
- The following is included in the log:
    - Timestamp
        - When the calendar filter is applied
        - When the filtered calendar is displayed
    - Log type (Success)
    - A message that the user has filtered and viewed the calendar
- The log is archived off of the persistent data store

Failure Outcomes
- The calendar does not populate with LLI[3] on their respective deadlines
- The calendar display does not reflect the user's filter specifications
- The calendar is not filtered and visualized with LLI[3] on their respective deadlines within 3 seconds
- The user viewing their LLI[3] in calendar is not logged in the persistent data store
- The failure log includes the following:
    - Timestamp
        - When the calendar filter is applied
        - When the calendar filter and display operation encounters and error
    - Log type (Failure)
    - Message indicating that the calender filter and display operation encountered an error
- The log is not archived off of the persistent data store

LC2 User Story[17]: Edit LLI[3] Using Calendar

As an authenticated user I can use the calendar to change the details of my LLI[3], enabling ease of access to existing LLI[3] through the calendar.

Effort Points (Hour) - 50

User Input

Optional Input
- LLI[3] title
    - Must only contain alphanumeric values
    - Must be between 1-50 characters long
    - Default value is current title
- Category/Categories of LLI[3]
    - The valid options are "Mental Health[5]", "Physical Health[6]", "Outdoor[7]", "Sport[8]", "Art[9]", "Hobby[10]", "Thrill[11]", "Travel[12]", "Volunteering[13]", and "Food[14]"
    - Default value is the current category/categories
- Description of LLI[3]
    - Must consist only of alphanumeric values between 0-200 characters long
    - Default value is the current description
- Status of LLI[3]
    - The valid options are "Active", "Completed", "Postponed"
    - Default value is the current status
- Visibility of LLI[3]
    - The valid options are "Public, Private"
    - Default value is the current visibility
- Deadline of LLI[3]
    - Must be a valid date in the format MM/DD/YYYY

- ○ The date must be between 01/01/1900 and 12/31/2100
- ○ Default value is the current deadline
- Cost of LLI[3]
    - ○ Must be a numerical value greater or equal to 0
    - ○ Default cost is the current cost

App Permissions
- Permission: Read and Write
- Scope: Lifelog User Account

Target Audience - Any authorized User

Pre-conditions
1. The user is registered
2. The user is authenticated
3. The authenticated user has LLI[3] created

Success Outcomes
- Changes, if any, to the LLI[3] attributes are reflected in the relational database
- All inputs meets validation requirements in User Input section
- The calendar view contains the reflected changes, if any
- A message saying the LLI[3] had been successfully change is displayed
- Changes, if any, are saved to the persistent data store within 3 seconds of the user initializing the change action
- The LLI[3] change through the calendar is logged in the persistent data store
- The following is included in the log:
    - ○ Timestamp
        - ■ When the LLI[3] update operation is initialized
        - ■ When the LLIs[3] updates are stored in persistent data store
    - ○ Log type (Success)

- ○ A message that the user changed a LLI[3] using the calendar
- The log is archived off of the persistent data store

Failure Outcomes
- Changes, if any, to the LLI[3] attributes are not reflected in the relational database
- All inputs do not meets validation requirements in User Input section
- The calendar view doesn't contain the reflected changes, if any
- A message saying the LLI[3] had been successfully change is displayed, if the LLI[3] had been successfully change
- Changes, if any, are not saved to the persistent data store within 3 seconds of the user initializing the change action
- The LLI[3] change through calendar is not logged in the persistent data store
- The failure log includes the following:
  - ○ Timestamp
    - ■ When the LLI[3] is updated
    - ■ When the LLI[3] update operation failed
  - ○ Log type (Failure)
  - ○ A message indicating the LLI[3] update from calendar process failed
- The log is not archived off of the persistent data store

LC3 User Story[17]: Create LLI[3] Using Calendar

As a registered user I can click a date on the calendar to create a new LLI[3], enabling a visual method of LLI[3] creation.

Effort Points (Hour) – 50

User Input

Required Input

- Title of LLI[3]
  - Must only contains alphanumeric values between 1-50 characters long
- Category/Categories of LLI[3]
  - The valid options are "Mental Health[5]", "Physical Health[6]", "Outdoor[7]", "Sport[8]", "Art[9]", "Hobby[10]", "Thrill[11]", "Travel[12]", "Volunteering[13]", and "Food[14]"

Optional Input

- Description of LLI[3]
  - Must consist only of alphanumeric values between 0-200 characters long
  - Default to null
- Status of LLI[3]
  - The valid options are "Active", "Completed", "Postponed"
  - Default to "Active"
- Visibility of LLI[3]
  - The valid options are "Public, Private"
  - Default to "Public"
- Deadline of LLI[3]
  - Must be a valid date in the format MM/DD/YYYY
  - The date must be between 01/01/1900 and 12/31/2100

- ○ Default to null
- Cost of LLI[3]
  - ○ Must be a numerical value greater or equal to 0
  - ○ Default to null

App Permissions
- Permission: Write
- Scope: Lifelog User Account

Target Audience – All authenticated Normal Users

Pre-conditions
1. The user is registered
2. The user is authenticated
3. The authenticated user is on the calendar view

Success Outcomes
- The new LLI[3] is saved to the relational database
- All inputs meets validation requirements in User Input section
- A message saying the LLI[3] had been successfully saved is displayed
- The new LLI[3] is saved to the persistent data store within 3 seconds of the user initializing the create action
- The LLI[3] creation through the calendar is logged in the persistent data store
- The following is included in the log:
  - ○ Timestamp
    - When the LLI[3] is creation operation from calendar is initialized
    - When the LLI[3] is stored in persistent data store
  - ○ Log type (Success)
  - ○ A message that the user created a LLI[3] using the calendar
- The log is archived off of the persistent data store

Failure Outcomes

- The new LLI[3] is not saved in the data store
- All inputs do not meets validation requirements in User Input section
- A message saying the LLI[3] had been successfully saved is not displayed, if the LLI[3] had been successfully saved
- The new LLI[3] is not saved to the persistent data store within 3 seconds of the user initializing the create action
- The LLI[3] creation through calendar is not logged in the persistent data store
- The failure log includes the following:
  - Timestamp
    - When the LLI[3] is created from calendar
    - When the LLI[3] creation process failed
  - Log type (Failure)
  - A message that indicates that the LLI[3] creation process from calendar failed
- The log is not archived off of the persistent data store

Lifelog Badge

LB1 User Story[17]: View Badges

As an authenticated user I can access the Lifelog Badge view to see what badges I've accomplished.

Effort Points (Hour) – 50

App Permissions
- Permission: Read
- Scope: Lifelog User Account

Target Audience – Any authorized User

Pre-conditions
1. The user is registered
2. The user is authenticated
3. The authenticated user is on the LifeLog Badge view

Success Outcomes
- LLBs[1] shown visibly on the LifeLog Badge view
- Category LLBs[1] are accurately represented in the LLB[1] view
- The streak LLB[1] is accurately represented in the LLB[1] view
- The user viewing a LLB[1] is logged in the persistent data store
- The following is included in the log:
  - Timestamp
    - When the LLB[1] view operation is initialized
    - When the LLB[1] view is finalized and displayed
  - Log type (Success)

- - A message indicating the user accessed the LLB[1] view
- The log is archived off of the persistent data store

Failure Outcomes
- LLBs[1] are not shown visibly on the LifeLog Badge view
- Category LLBs[1] are not accurately represented in the LLB[1] view
- The streak LLB[1] is not accurately represented in the LLB[1] view
- The LLB[1] user viewed is not logged in the persistent data store
- The failure log includes the following:
  - Timestamp
    - When the LLB[1] view operation is initialized
    - When the LLB[1] view operation fails
  - Log type (Failure)
  - A message that the LLB[1] view operation failed
- The log is not archived off of the persistent data store

LB2 User Story[17]: Obtain Badges

As an authenticated user I will be able to obtain badges for completing LLI[3] of specific categories, encouraging me to pursue more LLIs[3].

Effort Points (Hour) – 50

App Permissions
- Permission: Read and Write
- Scope: Lifelog User Account

Target Audience – Any authorized User

Pre-conditions
1. The user is registered
2. The user is authenticated

Success Outcomes
- Category LLB[1] is rewarded correctly based on user's accomplishments
- User's LLB[1] is successfully stored in relational database
- The user obtaining a LLB[1] is logged in the persistent data store
- The following is included in the log:
  - Timestamp
    - When the LLB[1] is obtained
    - When the LLB[1] is stored in persistent data store
  - Log type (Success)
  - A message that the user obtained a LLB[1], details what category the category LLB[1] is for
- The log is archived off of the persistent data store

Failure Outcomes

- LLBs[1] doesn't match the accomplishment of user activity
- User's LLB[1] is not successfully stored in a database
- The user obtaining a LLB[1] is not logged in the persistent data store
- The failure logs include the following:
  - Timestamp
    - When the LLB[1] is obtained
    - When the LLB[1] save to profile operation fails
  - Log type (Failure)
  - A message that an LLB[1] failed to be saved to a user account
- The log is not archived off of the persistent data store

LB3 User Story[17]: Obtain Login Streak Badges

As an authenticated user I will be able to obtain a login streak badge, encouraging me to login frequently.

Effort Points (Hour) – 50

App Permissions
- Permission: Read and Write
- Scope: Lifelog User Account

Target Audience – Any authorized User

Pre-conditions
1. The user is registered
2. The user is authenticated

Success Outcomes
- Login Streak badge matches how many consecutive days user logs in
- User's Login Streak badge is successfully stored in the data store
- User's login streak number is successfully stored in the data store
- Streak number only goes up after 24 hours have passed between user's first and second login
- The user obtaining a login streak badge is logged in the persistent data store
- The following is included in the log:
    - Timestamp
        - When the login streak badge is obtained
        - When the login streak badge is stored in persistent data store
    - Log type (Success)
    - A message that the user obtained a login streak badge, and for how many

days
- The log is archived off of the persistent data store

Failure Outcomes
- Login Streak badge doesn't match how many consecutive days user logs in
- User's Login Streak badge is not stored in the persistent data store
- User's streak number is not stored in the persistent data store
- Streak number doesn't goes up after 24 hours have passed between user's first and second login
- Streak number goes up after any event other than the one mentioned in success outcomes
- The user obtaining a login streak badge is not logged in the persistent data store
- The failure logs include the following:
  - Timestamp
    - When the login streak badge is obtained
    - When the login streak badge storage operation fails
  - Log type (Failure)
  - A message that storing the user's login streak badge failed
- The log is not archived off of the persistent data store

Lifelog Reminders

LR1 User Story[17]: Receive Reminders

As a registered user I customize the frequency between weekly, monthly, or never for receiving my emails. I can also customize my reminder email content based on my as well as the contents of my reminder emails between the choice of being based on my completed LLIs[3] or planned LLIs[3], motivating me about my LLI[3] goals.

Effort Points (Hour) - 50

User Input

Optional Input

- Email frequency
    - The frequency can be either weekly, monthly or never
    - Default value is weekly
- Contents
    - The contents can be based off of:
        - Completed LLIs[3] (status completed)
        - Planned LLIs[3] (status, active or postponed)
        - All LLI[3]
    - Default value for content focus is Completed LLIs[3]

App Permissions

- Permission: Read and Write
- Scope: Lifelog User Account

Target Audience - Any authorized Normal User

Pre-conditions

1. The user is registered
2. The user is authenticated
3. The authenticated user is on the Reminders view
4. The authenticated user has agreed to receiving emails from Lifelog

Success Outcomes

- User's preferences are saved in the persistent data store
- User's preference in email frequency is followed, as outlined in user input
- User's preference in email content is followed, as outlined in user input
- The Lifelog reminder preference change operation is logged in the persistent data store
- The following is included in the log:
  - Timestamp
    - When the Lifelog reminder preference change operation is started
    - When the Lifelog reminder preference change operation is completed
  - Log Type (Success)
  - A message that the user changed their Lifelog reminder preferences
- The log is archived off of the data store

Failure Outcomes

- Users preference is not saved in the persistent data store
- User preference in email frequency is not followed
- User preference in email content is not followed
- The Lifelog reminder preference change operation is not logged in the persistent data store
- The failure log includes the following:
  - Timestamp
    - When the Lifelog reminder preference change operation is started

- - - When the Lifelog reminder preference change operation fails
  - ○ Log Type (Failure)
  - ○ A message that the user's preference change operation failed
- The log is not archived off of the data store

Media Mementos

MM1 User Story[17]: Attach Media

As an authenticated user I can attach 0-3 media files to an LLI[3], to personalize my experience of accomplishing the LLI[3].

Effort Points - 200 points

User Input

Required Input
- Media File(s)
    - Must be a .jpg or .png file for image
    - Must be a .mp4 file for video
    - File must be less than 50MB
    - The total capacity for media attached to an LLI[3] must be below 50MB
    - The total capacity for media attached to all LLIs[3] must not exceed 1GB

App Permissions
- Permission: Read and Write
- Scope: LLI[3]

Target Audience - All authenticated normal user

Pre-conditions
1. The user is registered
2. The user is authenticated
3. The authenticated user selects an LLI[3] to attach media to

Success Outcome(s) –

- Media files are saved to the persistent data store
- Media files are attached to the selected LLI[3]
- All inputs meets validation requirements in User Input section
- Media files belong to the types of files specified in the input
- Media files fits the file sizes specified in input
- The media files are saved within 3 seconds
- A message saying the medias are successfully attached is displayed, if the medias are successfully attached
- A message saying the medias fails to attached is displayed, if the medias are successfully attached
- The user attaching media files is logged in the persistent data store
- The following is included in the log:
    - Timestamp
        - When the media files upload operation starts
        - When the media files is stored in persistent data store
    - Log Type (Success)
    - A message that the user uploaded media files to a LLI[3]
- The log is archived off of the data store

Failure Outcome(s) –

- Media files are not saved to the persistent data store
- Media files are not attached to the selected LLI[3]
- All inputs do not meets validation requirements in User Input section
- Media files do not belong to the types of files specified in the input
- Media files do not fits the file sizes specified in input
- The media files are not saved within 3 seconds
- A message saying the medias are successfully attached is not displayed, if the medias are successfully attached
- A message saying the medias fails to attached is not displayed, if the medias are

successfully attached

- The user attaching media files is not logged in the persistent data store
- The failure log includes the following:
  - Timestamp
    - When the media files upload operation starts
    - When the media files fails to be stored in persistent data store
  - Log Type (Failure)
  - A message that the media file upload operation fail
- The log is not archived off of the data store

MM2 User Story[17]: View Media

As an authenticated user, I can view a media memento that I have uploaded into my LLIs[3], allowing me to come back to personal media.

Effort Points - 75

App Permissions
- Permission: Read
- Scope: LLI[3]

Target Audience - All authenticated normal user

Pre-conditions
1. The user is registered
2. The user is authenticated
3. The authenticated user selects an LLI[3]

Success Outcomes
- A media attached to a LLIs[3] is displayed to the user
- The media displayed is a file that belongs to the LLI[3]
- The media appears within 3 seconds
- A message informing the user that the media is unavailable is shown if the operation fails
- The user viewing media files is logged in the persistent data store
- The following is included in the log:
  - Timestamp
    - When the media files view operation is started
    - When the media files are viewable to the user
  - Log Type (Success)

- ○ A message that the user viewed the media files
- The log is archived off of the data store

Failure Outcomes
- A media attached to a LLIs[3] is not displayed to the user
- The media displayed is not a file that belongs to the LLI[3]
- The media does not appear within 3 seconds
- A message informing the user that the media is unavailable is not shown if the operation fails
- The user viewing media files operation is not logged in the persistent data store
- The failure log includes the following:
  - ○ Timestamp
    - ■ When the media files view operation is started
    - ■ When the media files view operation failed
  - ○ Log Type (Failure)
  - ○ A message that the user failed to view media
- The log is not archived off of the data store

MM3 User Story[17]: Delete Media

As an authenticated user, I can delete one stored media memento file at a time on an LLI[3], granting me full control over my media mementos.

Effort Points – 75 points

App Permissions
- Permission: Delete
- Scope: LLI[3]

Target Audience – All authenticated normal users

Pre-conditions –
1. The user is registered
2. The user is authenticated
3. The authenticated user has uploaded media to their selected LLI[3]

Success Outcome(s) –
- The media file is deleted from the persistent data store
- The media file is deleted from the LLI[3]
- The media file is deleted within 3 seconds
- The media file are no longer shown to the user
- A message saying that the media file was successfully deleted is displayed to the user
- A message saying that the media file failed to be deleted is displayed to the user, if the media file failed to be deleted
- The user deleting a media file is logged in the persistent data store
- The following is included in the log:
  - Timestamp

- - ■ When the media file's deletion operation is started
    - ■ When the media file's deletion operation finishes
  - ○ Log Type (Success)
  - ○ A message that the user has deleted the media file
- The log is archived off of the data store

Failure Outcome(s) –
- The media file is not deleted from the persistent data store
- The media file is not deleted from the LLI[3]
- The media file is not deleted within 3 seconds
- The deleted media file is still shown to the user
- A message saying that the media file was successfully deleted is not displayed to the user, if the media file was successfully deleted
- A message saying that the media file failed to be deleted is not displayed to the user, if the media file failed to be deleted
- The user deleting a media file is logged in the persistent data store
- The failure log includes the following:
  - ○ Timestamp
    - ■ When the media file's deletion operation is started
    - ■ When the media file's deletion operation fails
  - ○ Log Type (Failure)
  - ○ A message that the user deleted the media files
- The log is not archived off of the data store

Pathfinding for LLI[3]

P1 User Story[17]: Search for Venues

As an authenticated user, I can search for 5/10/15/20 venues within a minimum of 5 miles to a maximum of 25 miles for my LLI[3].

Effort Points - 200 points

User Input

Required Input

- Category pertaining to a LLI[3]
    - Category can be chosen from "Mental Health[5]", "Physical Health[6]", "Outdoor[7]", "Sport[8]", "Art[9]", "Hobby[10]", "Thrill[11]", "Travel[12]", "Volunteering[13]", and "Food[14]"
- Title pertaining to a LLI[3]
    - The LLI[3] title consist only of alphanumeric values between 1-50 characters long

Optional Input

- Choice between 5/10/15/20 venues(defaulted to 5)
- Choice of miles between a minimum of 5 to a maximum of 25 mile radius(defaulted to 5 mile radius)

Data Source

Origin

- External

Type

- API

Details

- https://maps.googleapis.com/maps/api/place/findplacefromtext/*output*?*param*

eters

- API will be used to find venues in regards to user search
- Default venues search will be set to 5

AuthN

- peaceuser1@gmail.com

App Permissions

- Permission: Read
- Scope: Lifelog User Account

Target Audience - All authenticated normal user

Pre-conditions

1. The user is registered
2. The user is authenticated
3. The authenticated user is on the Pathfinding view

Success Outcome(s) -

- All inputs meet the validation requirements in the User Input section
- The location of all venues are within the user's input radius filter
  - 5-25 mile range
- The number of venues returned are within the users input of
  - 5, 10, 15, 25 venue
- A message saying that the search failed is displayed to the user, if the search fails
- The user searching in pathfinding search bar is logged in the persistent data store
- The following is included in the log:
  - Timestamp
    - When the pathfinding operation starts
    - When pathfinding operation gives results

- ○ Log Type (Success)
  - ○ A message that the pathfinding operation gave results
- The log is archived off of the data store

Failure Outcome(s) –
- All inputs do not meet the validation requirements in the User Input section
- The location of all venues are not within the user's input radius filter
  - ○ 5-25 mile range
- The number of venues returned are not within the users input of
  - ○ 5, 10, 15, 25 venue
- A message saying that the search failed is not displayed to the user, if the search fails
- The user searching in pathfinding search bar is not logged in the persistent data store
- The failure log includes the following:
  - ○ Timestamp
    - ■ When the pathfinding operation starts
    - ■ When pathfinding operation fails to give results
  - ○ Log Type (Failure)
  - ○ A message that the pathfinding operation fail to give results
- The log is not archived off of the data store

Interactive Geospatial Map

IGM1 User Story[17]: Create Pins

As an authenticated user, I can create up to 20 pins at a time for a LLI[3] on the interactive map, to visualize my LLIs[3] or remember my completed LLIs[3].

Effort Points (Hour) – 150 points

User Input

Required Input

- Location(s) to associate the LLI[3] with

Optional Input

- Date and Time

Data Source

Origin

- External

Type

- API

Details

- We will be using Google's Places API to let users search locations
- We will be using Google's Maps Javascript API, and Map Static API to generate the interactive map along with the customizable markers/pins
- Data of specific LLI[3] tied to the user from the relational database
- geolocation location information of pins stored on the relational database
- API details: https://developers.google.com/maps

AuthN

- peaceuser1@gmail.com

App Permissions

- Permission: Write, Read
- Scope: Lifelog User Account

Target Audience - All authenticated Normal User

Pre-conditions

1. The user is registered
2. The user is authenticated
3. The authenticated user is in the Interactive Geospatial Map View

Success Outcomes

- The location(s) given by the user is saved to the relational database.
- The created pin is present on the map
- The pin is accurately positioned on the map with precision of up to 200m of given location
- The pin is created within 3 seconds
- A message saying the pin is successfully created is displayed, if the pin is successfully created
- If user given location is not found, a message saying that is displayed to the user
- The pin creation is logged in the persistent data store
- The following is included in the log:
  - Timestamp
    - When the pin is created
    - When the pin is stored in persistent data store
  - Log type (Success)
  - A message that the user created a pin
- The log is archived off of the persistent data store

Failure Outcomes

- The location(s) given by the user is not saved to the relational database.
- The created pin is not present on the map
- The pin is not accurately positioned on the map with precision of up to 200m of given location
- The pin is not created within 3 seconds
- A message saying the pin is successfully created is not displayed, if the pin is successfully created
- If user given location is not found, a message saying that is not displayed to the user
- The pin creation is not logged in the persistent data store
- The failure log includes the following:
  - Timestamp
    - When the pin is created
    - When the pin fails to be stored in persistent data store
  - Log type (Failure)
  - A message that the user fails to create a pin
- The log is not archived off of the persistent data store

IGM2 User Story[17]: Delete Pins

As an authenticated user, I can delete one or up to all my pins when I no longer want them on the map.

Effort Points (Hour) – 100 points

App Permissions
- Permission: Write
- Scope: Lifelog User Account

Target Audience – All authenticated Normal User

Pre-conditions
1. The user is registered
2. The user is authenticated
3. The authenticated user is in the Interactive Geospatial Map View

Success Outcomes
- The location data of the pin which is stored in the relational database is archived.
- The pin is deleted from the map
- The pin is deleted within 3 seconds
- A message indicating that the operation was successful is displayed to the user, if the operation was successful
- A message indicating that the operation failed is displayed to the user, if the operation was not successful
- The pin deletion is logged in the persistent data store
- The following is included in the log:

- ○ Timestamp
  - ■ When the pin fetched from persistent data store
  - ■ When the pin is deleted in persistent data store
- ○ Log type (Success)
- ○ A message that the user deleted a pin
- The log is archived off of the persistent data store

Failure Outcomes
- The location data of the pin which is stored in the relational database is not archived.
- The pin is not deleted from the map
- The pin is not deleted within 3 seconds
- A message indicating that the operation was successful is not displayed to the user, if the operation was successful
- A message indicating that the operation failed is not displayed to the user, if the operation was not successful
- The pin deletion is not logged in the persistent data store
- The failure log includes the following:
  - ○ Timestamp
    - ■ When the pin fetched from persistent data store
    - ■ When the pin fails to be deleted in persistent data store
  - ○ Log type (Failure)
  - ○ A message that the user failed to delete a pin
- The log is not archived off of the persistent data store

IGM3 User Story[17]: View Pin Details

As an authenticated user, I can click on one pin at a time to view the details of a LLI[3], allowing me to get more in-depth with my LLIs[3].

Effort Points (Hour) - TBD

App Permissions
- Permission: Read
- Scope: Lifelog User Account

Target Audience - All authenticated Normal User

Pre-conditions
1. The user is registered
2. The user is authenticated
3. The authenticated user is in the Interactive Geospatial Map View

Success Outcomes
- The view containing the following is displayed:
    - Title of the corresponding LLI[3]
    - Category of the corresponding LLI[3]
    - Description of the corresponding LLI[3]
    - Status of the corresponding LLI[3]
    - Visibility of the corresponding LLI[3]
    - Deadline of the corresponding LLI[3]
    - Cost of the corresponding LLI[3]
    - The mementos media
    - The date/time if available
    - Name of the location
- A message showing the pin failed to load is displayed if the pin failed to load

- The details of the pins are pulled up within 3 seconds.
- The user viewing the pin is logged in the persistent data store
- The following is included in the log:
    - Timestamp
        - When the pin data is fetched from persistent data store
        - When the pin is viewable to the user
    - Log type (Success)
    - A message that the user viewed a pin
- The log is archived off of the persistent data store

Failure Outcomes
- The view containing the following is not displayed:
    - Title of the corresponding LLI[3]
    - Category of the corresponding LLI[3]
    - Description of the corresponding LLI[3]
    - Status of the corresponding LLI[3]
    - Visibility of the corresponding LLI[3]
    - Deadline of the corresponding LLI[3]
    - Cost of the corresponding LLI[3]
    - The mementos media
    - The date/time if available
    - Name of the location
- A message showing the pin failed to load is not displayed if the pin failed to load
- The user viewing the pin is not logged in the persistent data store
- The failure log includes the following:
    - Timestamp
        - When the pin data is fetched from persistent data store
        - When the pin is fails to be viewable to the user
    - Log type (Failure)

- A message that the user failed to view a pin
- The log is not archived off of the persistent data store

IGM4 User Story[17]: Update Pin Location

As an authenticated user, I can update the location of one of my pins at a time on the interactive map in case I ever change my mind

Effort Points (Hour) – TBD

User Input

Required Input

- New location(s) to associate the LLI[3] with
    - The location must be a valid location within the google map platform

Data Source

Origin

- Google Maps Platform API

Type

- API

Details

- We will be using Google's Places API to let users search locations
- We will be using Google's Maps Javascript API, and Map Static API to generate the interactive map along with the customizable markers/pins
- Data of specific LLI[3] tied to the user from the relational database
- geolocation location information of pins stored on the relational database

AuthN

- peaceuser1@gmail.com

App Permissions

- Permission: Read and Write
- Scope: Lifelog User Account

Target Audience – All authenticated Normal User

Pre-conditions

1. The user is registered
2. The user is authenticated
3. The authenticated user is in the Interactive Geospatial Map View
4. User is viewing pin details

Success Outcomes

- The location data of the pin which is stored in the persistent data store is updated
- The pins location change is reflected on the interactive map
- The pin location is updated in the persistent data store within 3 seconds
- A message saying the location of the pin has been updated is displayed to the user, if the pin has been updated
- A message saying the location of the pin failed to be updated is displayed to the user, if the pin has not been updated
- The user updating the location of a pin is logged in the persistent data store
- The following is included in the log:
  - Timestamp
    - When the pin data is fetched from persistent data store
    - When the pin data is updated to the persistent data store
  - Log type (Success)
  - A message that the user updated a pin location with latitude and longitude
- The log is archived off of the persistent data store

Failure Outcomes

- The location data of the pin which is stored in the persistent data store is not updated

- The pins location change is not reflected on the interactive map
- The pin location is not updated in the persistent data store within 3 seconds
- A message saying the location of the pin has been updated is not displayed to the user, if the pin has been updated
- A message saying the location of the pin failed to be updated is not displayed to the user, if the pin has not been updated
- The user updating the location of a pin is not logged in the persistent data store
- The failure log includes the following:
  - Timestamp
    - When the pin data is fetched from persistent data store
    - When the pin data fails to be updated to the persistent data store
  - Log type (Failure)
  - A message that the user failed to update a pin location with latitude and longitude
- The log is not archived off of the persistent data store

IGM5 User Story[17]: Edit LLI[3] Using Pin

As an authenticated user, I can access one pin at a time to edit the details of my LLI[3], allowing me to conveniently customize my LLI[3]

User Input

Optional Input

- LLI[3] title
    - Must only contain alphanumeric values
    - Must be between 1-50 characters long
    - Default value is current title
- Category/Categories of LLI[3]
    - The valid options are "Mental Health[5]", "Physical Health[6]", "Outdoor[7]", "Sport[8]", "Art[9]", "Hobby[10]", "Thrill[11]", "Travel[12]", "Volunteering[13]", and "Food[14]"
    - Default value is the current category/categories
- Description of LLI[3]
    - Must consist only of alphanumeric values between 0-200 characters long
    - Default value is the current description
- Status of LLI[3]
    - The valid options are "Active", "Completed", "Postponed"
    - Default value is the current status
- Visibility of LLI
    - The valid options are "Public, Private"
    - Default value is the current visibility
- Deadline of LLI[3]
    - Must be a valid date in the format MM/DD/YYYY
    - The date must be between 01/01/1900 and 12/31/2100
    - Default value is the current deadline

- Cost of LLI[3]
    - Must be a numerical value greater or equal to 0
    - Default cost is the current cost

App Permissions
- Permission: Write
- Scope: Lifelog User Account

Target Audience - All authenticated Normal User

Pre-conditions
1. The user is registered
2. The user is authenticated
3. The authenticated user is in the Interactive Geospatial Map View
4. User needs to be viewing pin details

Success Outcomes
- Changes, if any, to the LLI[3] details are saved to the persistent data store
- The updates for each LLI[3] detail are logged
- The User LLI[3] data is updated within 3 seconds of pressing "save changes"
- A message saying the LLI has been updated is displayed to the user, if the LLI has been updated
- A message saying the LLI failed to be updated is displayed to the user, if the LLI has not been updated
- The user updating their LLI[3] through a pin is logged to the persistent data store
- The following is included in the log:
    - Timestamp
        - When the LLI[3] attached to the pin is fetched from persistent data store
        - When the LLI[3] attached to the pin is updated to the persistent

data store
- ○ Log type (Success)
- ○ A message that the user updated a LLI[3] through a pin
- The log is archived off of the persistent data store

Failure Outcomes
- If any of the following LLI[3] details are changed, the user LLI[3] data present in the relational database have not been updated:
  - ○ LLI[3] Title
  - ○ LLI[3] Status
  - ○ LLI[3] Deadline
- The User LLI[3] data is not updated within 3 seconds of pressing "save changes"
- A message saying the LLI has been updated is not displayed to the user, if the LLI has been updated
- A message saying the LLI failed to be updated is not displayed to the user, if the LLI has not been updated
- The user updating their LLI[3] through a pin is not logged to the persistent data store
- The failure log includes the following:
  - ○ Timestamp
    - ■ When the LLI[3] attached to the pin is fetched from persistent data store
    - ■ When the LLI[3] attached to the pin fails to update to the persistent data store
  - ○ Log type (Failure)
  - ○ A message that the user fails to update a LLI[3] through a pin
- The log is not archived off of the persistent data store

Cost Estimation Tool

CET1 User story[17]: Get LLI[3] Cost Estimate

As an authenticated user, I can get an estimated cost of an LLI[3] based on its category/categories, if data is available to do so.

Effort Points (Hour) - 100 points

User Input

Required Input
- A LLI[3] from the user Lifelog

App Permissions
- Permission: Read
- Scope: Lifelog User Account

Target Audience - All authenticated Normal User

Pre-conditions
1. The user is registered
2. The user is authenticated
3. The authenticated user is in the LLI[3] Management view

Success Outcomes
- The generated value is saved to the selected LLI[3] "Cost" field
- The generated value is a numerical greater than or equal to 0
- The "Cost" field has the following attributes after the value is saved:
    - Is in the $(cost) format
    - Is separated with a thousand-separator when over $999

- The cost estimate is generated within 3 seconds.
- A message saying that the cost estimation tool failed is displayed to the user, if the cost estimation tool failed
- The LLI[3] cost update is logged to the persistent data store
- The following is included in the log:
  - Timestamp
    - When the LLIs[3] cost update operation is started
    - When the LLIs[3] cost update operation is completed
  - Log type (Success)
  - A message that the user updated the cost of an LLI[3]
- The log is archived off of the persistent data store

Failure Outcomes
- The generated value is not saved to the selected LLI[3] "Cost" field
- The generated value is not a numerical greater than or equal to 0
- The "Cost" field does not has the following attributes after the value is saved:
  - Is in the $(cost) format
  - Is separated with a thousand-separator when over $999
- The cost estimate is not generated within 3 seconds.
- A message saying that the cost estimation tool failed not is displayed to the user, if the cost estimation tool failed
- The LLI[3] cost update is not logged to the persistent data store
- The failure log includes:
  - Timestamp
    - When the LLIs[3] cost update operation is started
    - When the LLIs[3] cost update operation is completed
  - Log type (Success)
  - A message that the user attempted to update an LLIs[3] cost and the operation failed
- The log is archived off of the persistent data store

CET2 User Story[17]: Add Own Cost Estimate

As an authenticated user, I can add my own cost estimation to an LLIs[3] cost field, helping me to put my plans in motion towards completing my LLI[3].

Effort Points (Hour) - 100 points

User Input

Required Input

- Cost estimation for the LLI[3]
    - The user-given estimate must be a numerical value greater than or equal to 0

App Permissions

- Permission: Write
- Scope: Lifelog User Account

Target Audience - All authenticated Normal User

Pre-conditions

1. The user is registered
2. The user is authenticated
3. The authenticated user is in the LLI[3] Management view

Success Outcomes

- The user given estimate is stored in the relational database.
- The user input meet the validation requirement in the User Input section
- The "Cost" field has the following attributes after the estimate is saved:
    - Is in the $(cost) format
    - Is separated with a thousand-separator when over $999
- The cost estimate is populated into the LLI[3] within 3 seconds.
- A message saying that the cost estimation tool failed is displayed to the user, if

the cost estimation tool failed

- The LLI[3] cost update is logged to the persistent data store
- The following is included in the log:
  - Timestamp
    - When the LLIs[3] cost update operation is started
    - When the LLIs[3] cost update operation is completed
  - Log type (Success)
  - A message that the user updated the cost of an LLI[3]
- The log is archived off of the persistent data store

Failure Outcomes
- The user given estimate is not stored in the relational database.
- The user input does not meet the validation requirement in the User Input section
- The "Cost" field does not has the following attributes after the estimate is saved:
  - Is in the $(cost) format
  - Is separated with a thousand-separator when over $999
- The cost estimate is not populated into the LLI[3] within 3 seconds.
- A message saying that the cost estimation tool failed is not displayed to the user, if the cost estimation tool failed
- The LLI[3] cost update is not logged to the persistent data store
- The failure log includes:
  - Timestamp
    - When the LLIs[3] cost update operation is started
    - When the LLIs[3] cost update operation is completed
  - Log type (Success)
  - A message that the user attempted to update an LLIs[3] cost and the operation failed
- The log is archived off of the persistent data store

Motivational quote

MQ1 User Story[17]: View Motivational Quote

As an unauthenticated or authenticated user, I can view a different motivational quote every 24 hours, starting at 11:59pm PST, on the main page of the Lifelog site, motivating me to complete my LLIs[3].

Effort Points - 100 points

Data Source

Origin

- External

Type

- Snapshot

Details

- https://github.com/ShivaliGoel/Quotes-500K
- A publicly available dataset of quotes, complete with authors and tags specifying the type of the quote.

AuthN

- None, snapshot of public data

App Permissions

- Permission: Read
- Scope: Lifelog User Account

Target Audience - All types of users

Pre-conditions

1. The user has access to Lifelog site

Success Outcome(s) –

- The datastore outputs a complete quote with associated author
- The quote is properly displayed on the main page of Lifelog both for authenticated and anonymous users
- The quote is changed exactly 24 hours after the site is online and continues to do so.
- A placeholder message is displayed if the server fails to respond with a motivational quote
- The motivational quote request from the relational database is logged in the persistent data store
- The following is included in the log:
  - Timestamp
    - When the request for the quote was made from the persistent data store
    - When the motivational quote is available to view for the user
  - Log type (Success)
  - A message indicating the request was made from the persistent data store
- The log is archived off of the persistent data store

Failure Outcome(s) –

- The datastore is not able to output a complete quote with associated author
- The quote is either not properly displayed or not displayed at all on the main page of Lifelog both for authenticated and anonymous users
- The quote changed either before or after 24 hours since the site has been online.
- The quote has not changed exactly 24 hours after the site has been online.
- The quote has not been continually changing exactly 24 hours after the site has been online.
- A placeholder motivational quote is not displayed if the server fails to respond

with a motivational quote

- The motivational quote request from the relational database is logged in the persistent data store
- The failure log includes the following:
    - Timestamp
        - When the request for the quote was made from the persistent data store
        - When the motivational quote is available to view for the user
    - Log type (failure)
    - A message indicating that the system failed to pull the quote from the persistent data store
- The log is archived off of the persistent data store

Changelog:

October 11 2023: Initial BRD submission