

“ACHIEVE” System Requirements

Inf 43 – Homework 1

April 24, 2020

Michael Orlanes
ID# 3865414

Introduction

The Irvine Life Coach (ILCG) group is an Irvine-Based company that aims to assist people in achieving satisfaction in life. The company wants to make a mobile app called “Achieve” that manages the user’s life or long-term goals and track their progress alongside matching users with other individuals who have similar goals and mindsets. This is because people would live in dissatisfaction from not being able to manage and accomplish their large lifetime goals. This app can provide the motivation and organization people need to “achieve” these goals by creating intermediate steps that build up to the larger, overall goal, having being rewarded for completing such tasks, and finding outside assistance through ILCG’s life coaches or other users found using goal matching algorithms.

Overview / Executive Summary

The overall purpose of Achieve is to assist people in achieving their life goals by providing them with the tools that can help organize, and manage large goals, one step at a time as well as providing them with external resources and motivation to prod them toward goal completion. The app should be accessible and understandable by any consumer of all age ranges

The largest and most prominent feature of the app is the ability to create and alter ‘big’ goals that are broken down into smaller, intermediate steps that help the person get one step closer to overall completion. This is because most long-term and life goals are quite ambitious and large in scale, so being able to break it into manageable pieces can help create a more distinct path for users to follow. The person also has the ability to alter and format these steps or goals if the intended plan is changed due to external circumstances. The person can create dates and deadlines for these tasks and even add them to their Google Calendar or Outlook. The app also keeps a history of all the goals they’ve finished so that the user may view what they have accomplished thus far.

Other important features of the app include the reminder and award system that is used to incentivize people to finish their goals and steps. Consumers of the app can set reminders for certain goals to make sure they don’t forget to do the task that is due that day. They also can assign medals for whenever they accomplish a certain task or milestone and even share that experience over social media. These features are necessary because people can have the tools to success but if they have no motivation to do their goals, the tools are rendered useless. To alleviate this issue, the implementation of reminders and incentives give the motivation they need to finish their goals and continue using the product.

The last feature is providing consumers with external resources to help them achieve their goals. This is accomplished through having them meet a life coach who will guide them and assist them on their journey to finish their life goal as well as through other users of the app by connecting people with each other using a match making system so that like minded people can motivate and help each other complete a goal they both want to accomplish.

Application Context / Environmental Constraints

Achieve is an app that will run on iOS and Android devices and is designed to be used remotely from any location, only needing data or internet for premium services, when interacting with third-party software, or needing to sync app/account data with other devices that the app also resides on. Internet is not required for basic functions of the app but is needed for the original installment of the app and access to other features.

The app will also interact with a variety of outside software such as Google Calendar and Outlook for when syncing goals and schedules made in the app. Since each user will have an individual account, they may choose to sign up using a preexisting Google or Facebook account. If they choose to sync with a Facebook account, they can make post about recent feats and accomplishments directly from the app. User information can also be uploaded and stored into the Cloud in the case of app failure. Transactions and billing is handled by either the App Store or Google Play Store depending on the device platform.

The UI will be utilizing universal and simplistic methods of interaction such as recognizable icons. All users, including admins and life coaches, will be presented with log in screens to access their account. Once in, if the user is a consumer, they will first handedly be able to see what the tasks that need to be done that day as well as upcoming deadlines they have set. Below this section will be a display of all the user's recent medals and achievements. There will be a settings menu where users can toggle certain preferences to enhance and personalize the app.

Functional Requirements

The use case diagram for achieve is presented in the diagram below and showcases three main actors: the consumer, life coaches, and administrators as well as the third-party software involved in certain features of the app. The first actor, the consumer, holds the most accessibility of the app, as they are able to use most functions such as the goal creator and organizer, awards systems, and matching system. The only features they are restricted from using are those that are reserved for administrators. The second actor, the life coaches, are only able to access features that are used to assist consumers in reaching their goals. The last important actor, the administrators, only have access to features that involve data analytics, controlling software misuse, and editing other app features. The life coaches and administrators are limited from features that involve personal customer information to uphold the policies on anonymity and privacy.

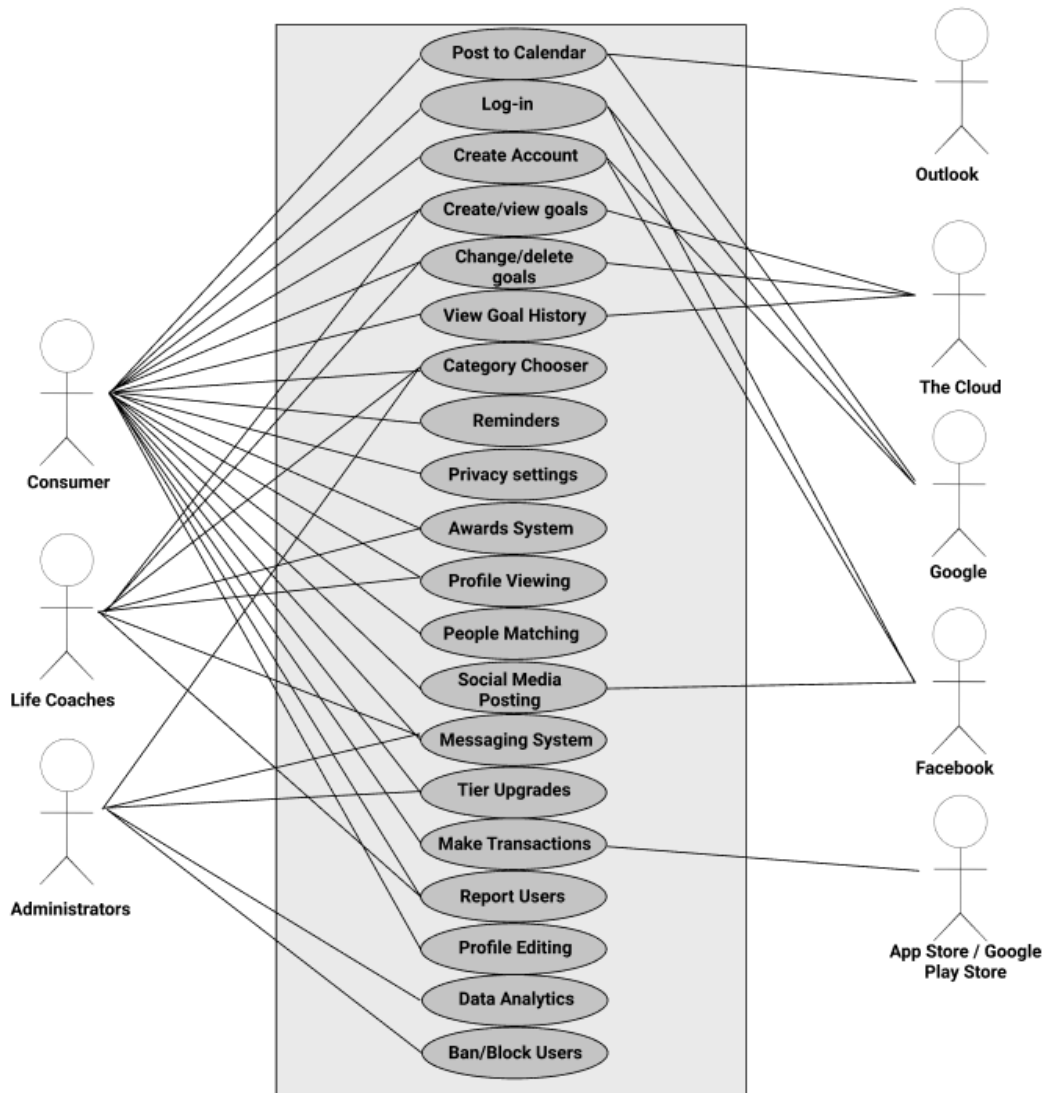


Diagram 1: Use Case Diagram for Achieve

The Consumer:

- **Post to Calendar:**
User has the ability to take the schedules and deadlines they have made to attain their goal and upload it to their personal calendar on Outlook or Google Calendar.
- **Log-in:**
The user will log-in to their Achieve account via Google or Facebook using the username and password they made when they created their account.
- **Create Account**
The user will sign up for a Achieve account either using a Google or Facebook account, to which they will be prompted to create a username and password they

will use to log in their account in future instances. The user will be given a basic tutorial of the basic operations of the app.

- **Create/View Goals:**
User will be able to create a plan with a ‘big’ goal as well as the amount of intermediate steps needed to achieve the goals. For every goal and step created, the user needs to input a name for it and optionally a deadline (includes a date and a time slot), a description detailing the goal, or the medal received for completing the goal. Goals can also be suggested or be received by life coaches if they have the premium tier. The user can toggle if the goal or step has been completed or not and finished goals are sent to the goal history permanently. Added goals are updated to the Cloud in the case of data loss. If tasks are done on a fixed schedule, the user can set it so the same task can be repeated on the specified time.
- **Change/Delete Goals:**
If for any reason the goals or intermediate steps are not met or the schedule of tasks is disturbed, the user can make edits to the goals, steps, or schedules such as changing names or descriptions. They can also delete/remove goals or steps, move the deadlines of steps, or skip over steps. Edits and deletion can only be applied to existing goals or steps. Edits and deletes can be applied to goals and plans given by life coaches or sample plans. Edits made to goals and steps are updated to the Cloud in the case of data loss.
- **View Goal History:**
Users can view goals they have completed in the past as goals are not deleted upon completion. Goal history can be accessed via Cloud.
- **Category Chooser:**
When a user creates a goal, they have a selection of categories to label their goal such as ‘fitness’, ‘nutrition’, ‘languages’, etc. The goals are named through a text box and subsequently categorized. In the case a goal does not meet one of the preset categories, the user can make a custom category that is unique to them that other users cannot use.
- **Reminders:**
The app will send reminders to the user to complete the upcoming goal or task(s) that need to be done soon. After some time has passed after the deadline of the goal, the reminder will ask if the user has completed the task, to which they can select ‘yes’ or ‘no’. Reminders can be toggled to be on or off.
- **Privacy Settings:**
If the user a patron of the Deluxe Tier or higher, they can have access to the privacy settings that allow them to modify the visibility of their goals, and medals by limiting who can see them. The user can elect to make the goals or medals private to only themselves or to only specified people they have approved.
- **Awards System:**
Points and medals are used to incentivize the user to complete their goals and intermediate steps by accumulating these rewards for doing certain tasks and milestones. Points are given every time the user finishes an intermediate task and is applied to their username. Medals are given when the user accomplishes a certain goal or task and is defined by the User, or the life coaches (via sample plans or directly depending on the user’s tier) when they create a goal or plan.

Medals like points, are treated as a number, showcasing how many medals the user has.

- **Profile Editing:**
Each user has a profile that can be linked via Facebook or a Google account. If the user is Deluxe Tier patron or higher, they have access to a more customizable profile such as having the option to set a profile picture or write a bio about themselves. These users are also able to showcase the goals they have allowed to be publicly seen. Users with the Deluxe tier can view other user's profiles if they also are a patron of the Deluxe Tier.
- **People Matching:**
Patrons with the Deluxe tier or higher can have access to the app's people matching system meant to group people with similar goals and mindsets so that they may work together and motivate each other to complete a goal or to just meet new people with common interests. When using the matching system, the user will be given an order list of the people whose profiles are most common with the user. Commonality will be defined by percentages ranges such as 70%-100%. Matched people can be filtered via a distance radius ranging from 20 to 100 miles. These percentages are calculated via a people matching AI. A general vicinity of the person is also given but not a specific location to adhere to the privacy policy. The user can select any one of the matched people and view their profile. Note users can only match with people if they are also patrons of the Deluxe Tier or higher and can only match using goals they have made public.
- **Profile Viewing:**
Patrons with the Deluxe Tier or higher can select other users (who also have the same tier or higher) and view their profile which contains information about themselves such as the username, public goals, profile picture, and bio. They user can also choose to directly message them using the app's messaging system.
- **Social Media Posting:**
The user has the ability to post to Facebook for any accomplishments such as finishing a goal, a step, or achieving a medal if they linked a Facebook account. Social media posting is available to patrons of all tiers
- **Messaging System:**
Patrons with the Deluxe Tier or higher can select other users (who also have the same tier or higher) or life coaches to directly message. Users can send messages, pictures, or files to other users they have commonalities with or with their life coaches (for Premium Tier patrons) for guidance and advice on how to achieve certain goals.
- **Tier Upgrades:**
There are different tiers with various benefits depending on what the users chooses to subscribe to. Each user must choose between the three tiers, which are the Free tier, Deluxe Tier, and Premium Tier.

- **Free Tier:**

The Free Tier is free of cost and is aimed for individual use and does not include any of the social features of the app. In the Free Tier, users define their own plans and goals but can't have more than 5 at once but can set their own

medals and rewards. Users in this tier can also post about their accomplishments and milestones to social media. Basic functions in this tier can be operated without a connection to the internet.

- **Deluxe Tier:**

The Deluxe Tier is accessed through a one-time fee and allows the user access to more social features of the app. The Deluxe Tier includes everything in the previous tier as well as access to the messaging system and matching system. Users are given profile management and customization abilities and can also view other user's profiles. Users also have access to privacy settings to manage their profile's visibility. The Tier also offers users sample plans with pre-made steps and medals made by the company's life coaches to which they can use and edit themselves. Users can also create an unlimited amount of goals in this tier. The social features of this tier require a connection to the internet.

- **Premium Tier:**

The Premium Tier is accessed through a monthly subscription and includes everything in the previous two tiers alongside access to one of the company's life coaches whom they may message and ask for direct plans and advice on how to complete the user's life goals. Note that each user can only get one life coach and that coaches will respond to messages within 24 hours of when it was sent.

- **Make Transactions:**

Users will use the systems incorporated by either the App Store or Google Play Store to handle the monetary transactions made to upgrade tiers. Information is privatized and anonymized as part of privacy policies.

- **Report Users:**

Users can report any malicious behavior exhibited by other users by the app such as threatening messages, inappropriate profile pictures, etc.

Life Coaches:

- **Create/View Goals:**

Has the same functionalities as the customer (refer to above). This user creates plans and steps for customers in the Premium Tier and can monitor and track their progress.

- **Change/View Goals:**

Has the same functionalities as the customer (refer to above). This user can edit or delete goals or steps within their customer's plans in the case plan needs to change.

- **Category Chooser:**

Has the same functionalities as the customer (refer to above). This user will assign categories for the goals and steps they make for their assigned customers.

- **Awards System:**

- Has the same functionalities as the customer (refer to above). This user will assign medals to certain steps or goals in the plan they make for their assigned customers.
- **Profile Viewing:**
Has the same functionalities as the customer (refer to above) except this user can only view the contents of the client they are assigned to.
- **Messaging System:**
Has the same functionalities as the customer (refer to above) except this user can only message the client they are assigned to.
- **Report Users:**
Has the same functionalities as the customer (refer to above). This user will report any malicious behavior from their clients if need be.

Administrators:

- **Category Chooser**
This user will be able to add categories to the category selection as data becomes more apparent for custom categories labeled by users but not implemented yet.
- **Messaging System**
This user will be able to send warning messages to users who have been reported and are exhibiting malicious behavior to cease or their account will be terminated.
- **Tier Upgrades**
This user will be able to alter the benefits of each tier, adding, changing, substituting, subtracting as necessary.
- **Data Analytics**
This user will be able to see analytics involving the app such as what people are doing, how they are using the app, what categories are being used, what plans and goals are common and used as well as which ones are failures so that they may contact the life coaches to make alterations to the sample plans. This user can also monitor if the app is being used for malicious practices by viewing how people are using the app.
- **Ban/Block Users**
If a customer is not being compliant or exhibiting continual malicious behavior, this user will be able to ban, block, terminate or suspend the customer's account.

Software Qualities and Non-functional Requirements

Usability	The software should be easy to understand and usable by anyone regardless of age range and tech experience. To accomplish this, the app will use typical methods of interaction implemented in other apps such as swiping, scrolling, etc. as well as universally recognized symbols to convey features. This should all be enveloped in an intuitive and approachable interface.
Speed	The app should perform at a speed and efficiency of most other apps if not better. The app should be able to alter data and upload it instantly to

prevent data loss and an efficient speed will not make the users have to wait for features to load.

- Security** The app should uphold utmost security by protecting user's personal and important information all while maintaining a level of anonymity for the consumers.
- Portability** The app should be centralized around portability considering the versatility and variety of goals consumers can choose such as going on a 10 mile run or just learning a language at home.
- Changeability** The app is expected to expand and grow exponentially as time progresses and popularity increases. The app will become more complex the more consumers use the app and thus the algorithms will become more complex and more features will be added or changed to conform to consumer-based and business-based needs.
- Reliability** The app should not shut down or crash abruptly or fail in its features especially those associated with reminders. The purpose of the app is to motivate people to complete their life goals and they made end up forgetting to do their tasks if the system fails to produce a reminder or fail in some other aspect
- Accuracy** Information across all devices should be consistent as people should not have to check whether the task they finished or change they made on one device was the same on another. However, it is acceptable for a device to not update if it cannot connect to the internet.

Other Requirements

- Revenue will be solely generated through tier upgrades so there will be no ads and selling data to others
- The app should follow the color scheme of the company logo
- File formats can be viewed in the app, but it should export those formats
- AI should check goals if they are malicious
- Life coaches must be able to define and implement sample plans before release of the app
- A test version should be available a month before release date for debugging/quality testing
- The budget should be under one million dollars

Glossary of Terms	Definition
Goal/ 'Big' goal	A large ambition that needs to be accomplished. For Achieve, it is broken down into subparts or intermediate steps
Intermediate steps/tasks	The smaller and more feasible sub parts of a 'big' goal
AI	"Artificial Intelligence" or a program that can behave with human like qualities, typically used to do a certain duty.
Bio	A personal short biography that people write to give a brief introduction about themselves.

Admin/Administrator	A person or group of people who are responsible for managing and leading a business or group
Life Coach	A person who trains and guides people on how to achieve their 'big' goals in life.
UI	"User Interface" or the layout and the environment in which the user can directly interact with the software.

Assumptions / Risks

Assumptions:

- It is assumed that if a consumer does not have an account, that they will not be able to access or use the app
- It is assumed that life coaches and administrators don't have an account associated with the consumers, but some other method provided by the company
- It is assumed that users of Deluxe Tier or higher, have some sort of stable internet or data connection in order to use the features they paid for

Risks:

- Although security and anonymity are held to high standards, that does not prevent hackers from trying to steal personal information
- When using the rewards and medals system, users may give themselves a large amount of rewards by assigning medals for simplistic and quick tasks
- Data loss may still be susceptible in the case Cloud fails or the Cloud Connection fails or data corruption from bugs in the program
- Failure to connect to third party software such as the App Store, Facebook, Google, etc., may prevent access to certain features

Priorities / Implementation Phases:

High Priority/Release day:

Both the iOS and Android version of the app will be released at the same time on August 1st of 2020. This version will only include the free version and all the components of the free version which include making a limited amount of goals, being able to change or alter them, and being able to post on social media once they have accomplished a certain milestone.

Within the First 6 Months:

On October 1st, the second version of the app will be updated to include the Deluxe Tier which includes all the social features of the app. By this time, it is expected that there will be around 1500 users utilizing the app.

Within the First Year:

On January 1st of 2021, the app will release the third version of the app which will include the Premium version which allows communication with a life coach from the company. By the first year it is expected to have 5000 users utilizing the app.

Expectations Beyond the First Year:

The app is expected to at least be used by all the residents in the Southern California area as it grows more popular. Huge growth and a rising popularity of the app is expected and the company will make alterations and hire more staff to accommodate the increasing demand.

Future Directions and Expected Changes

Considering the expectation of a exponentially and quickly growing audience, the app is expected to implement more functionalities available to certain tiers and just make the app run smoother and more efficiently overall. Below are some expected or proposed future implementations.

- The implementation of a survey that asks the consumer what their goals are and about themselves to increase the complexity and accuracy of the match making AI.
- Pairing up with big and local businesses to promote incentives for consumers to complete their goals such as making dancing lessons cheaper at this business for people whose goal is to learn how to dance
- A friend feature that allows patrons of the Deluxe Version or higher to become virtual friends with people they've connected with or have high interest or similarities in
- Implementation of plans for goals that were not implemented previously after analyzing the popular goals of consumers
- Implementing more categories that were not implemented previously and will be added after further data is collected
- Tentative plans to have a website alongside the mobile apps
- Future implementation of more languages as the current and solely available language is English.
- Collaborative goals that can be accomplished by those in large groups such as a programming team, or charity groups.