

iPhone Software Engineering COSC2472  
Assignment Report



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Punita Indraratna	s3705195
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# iPhone Assignment Group Effort Form

<b>Score range (10-7)</b>	The group member made rigorous and regular contributions
<b>Score (7-5)</b>	The group member was mostly present and contributing, with minor lapses
<b>Score (5-3)</b>	The group member was average in terms of contribution, disappeared from time to time
<b>Score (3-0)</b>	This group member made minimal contribution and was disengaged for most of the project.

**1<sup>st</sup>** – Use the Self-assessment rubric above to come up with a final score for each of the group members in the team. The values should reflect the relative percentage of contribution.

The scoring should be done by group consensus and should be updated weekly through the period of the assessment. If any student is rating low then the group should put in a plan for the student increase their contribution.

<b>Group Member (Name   Student Number)</b>	<b>Score #</b>
Student 1: Senaru Senevirathna   S3696653	10
Student 2: Angelo Parlade   S3688144	8
Student 3: Punita Indraratne   S3705195	4
Student 4: Elodie Marceline   s3602636	1

**2<sup>nd</sup>** – Discuss this amongst yourselves and rate the efficiency of your group dynamics. Enter a score from 1 to 4.

1 = awful; 2 = average; 3 = most of the times; 4 = always

<b>Group dynamics</b>	<b>Score #</b>
We were in complete sync with each other.	1
We communicated on a regular basis.	1
We had positive disagreements.	1
We were very productive in terms of outcomes.	1

## App Statement

### I. Slogan

Track what's important easily and quickly

### II. Main Purpose

The main objective of this app is to provide users with an efficient way of recording their daily food intake and activity into a diary.

### III. Selling Points

“fitDiary” is the easiest way of tracking food intake and activity, without having to manually calculate calories or macros.

- Saves home-made recipes for future entries.
- Calculates approximate calories burned from workout depending on exercise type, distance and time.
- Private, personalized diet profile. No need to share your personal goals. Let your friends be surprised by your results!
- Calculates and advises appropriate daily calorie/macro intake based on weight, height, gender, health goals, etc...
- Add fitbit/sports watch entries, such as step count, workout details and spent KJs.
- Plan future meals that fit your diet.
- Meal preparation help and recipe ideas.
- Save your progress pictures to see how far you've come!

### IV. Use Case

Want to start tracking your diet to achieve your fitness goals? Try our app and ditch calculating your calories by pen and paper. Simply record what you ate and how much, we'll do the rest. We'll let you know how much you should aim to eat, and even consider how much energy you burn on the daily, including workouts.

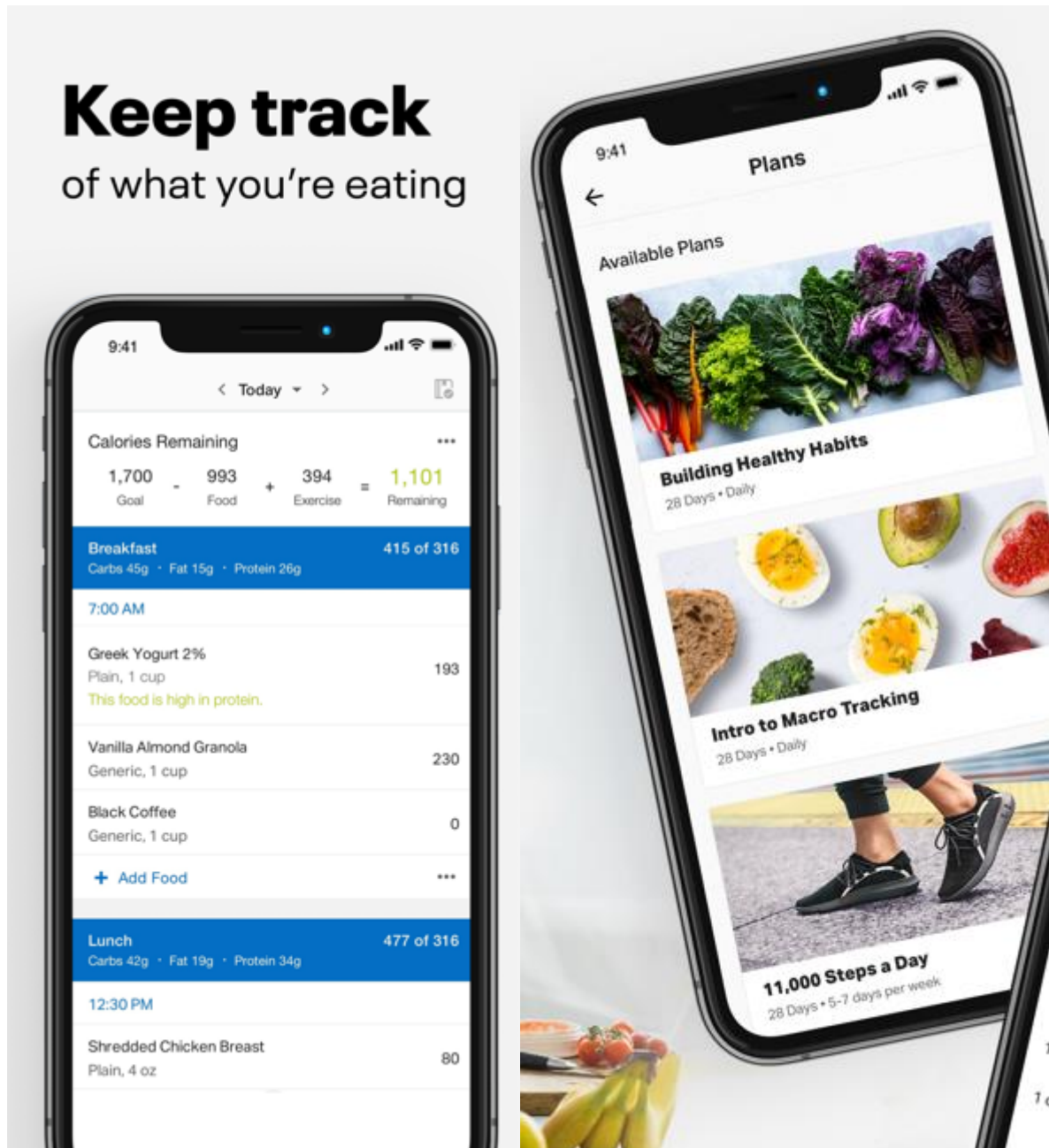
### V. Keywords

Calorie Counter    Activity Tracker    Food Diary    Diet Diary

# Competitors

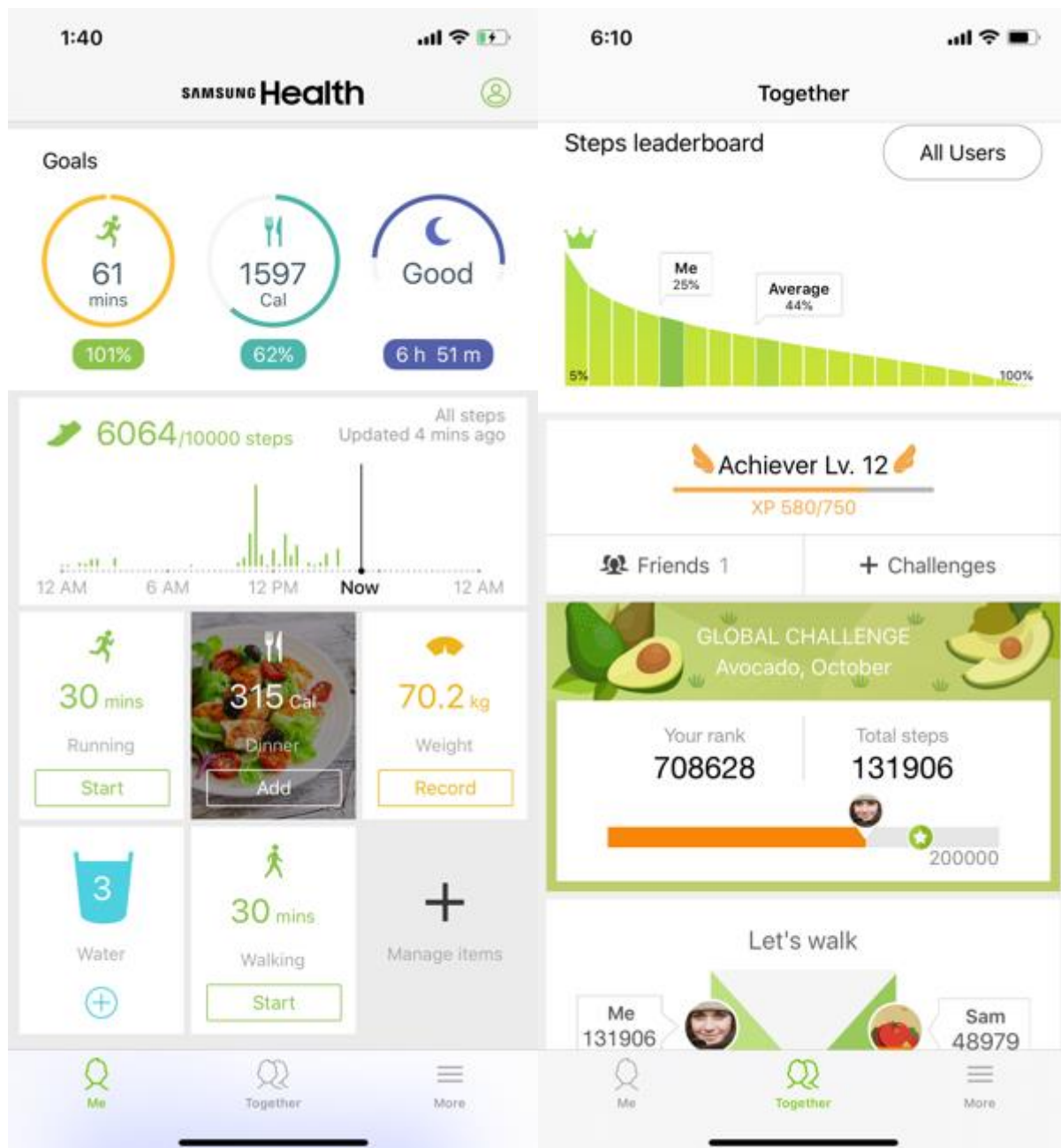
## I. myFitnessPal - Under Armour

<https://apps.apple.com/us/app/myfitnesspal/id341232718>



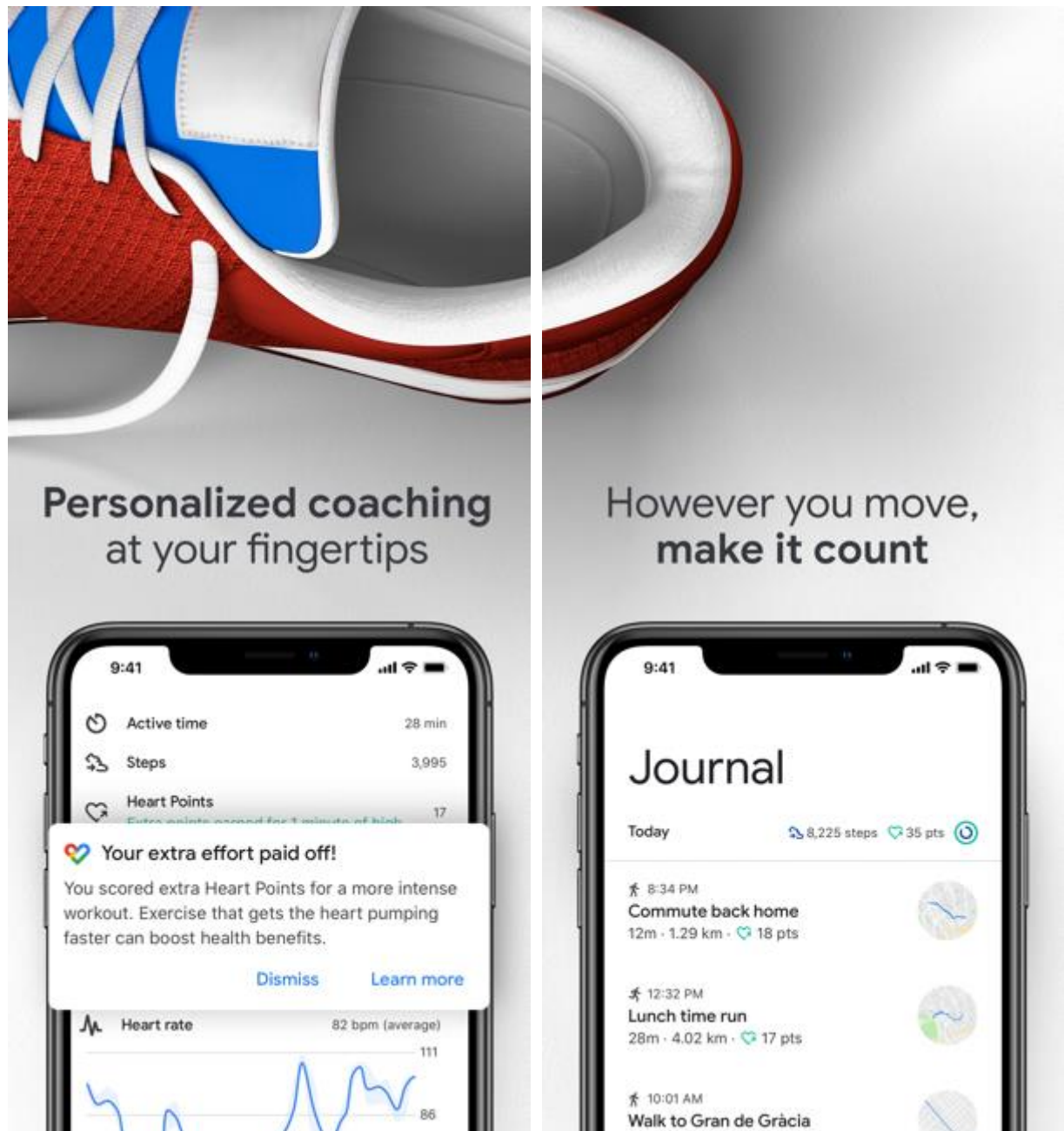
## II. Samsung Health

<https://apps.apple.com/au/app/samsung-health/id1224541484>



### III. Google Fit

<https://apps.apple.com/us/app/google-fit-activity-tracker/id1433864494>



#### IV. Summary - Selling Points

After trying all the listed apps above that can be considered a competitor to the application we are making, the biggest issue we came across is that all the apps displayed information or advertised suggestions that, while related to a healthy lifestyle, isn't part of the core purpose of this category of applications which is to track weight, calorie intake and daily strenuous activities.

Users of such applications normally already have a plan/program towards their personal goal and just need a tool to help them track their progress. They don't need features like challenges, achievements, rewards, events, blood pressure, blogs, recommended items to buy or meals/recipes that doesn't take into account the accessibility of ingredients to the user or even the culinary skill of the user. Users are constantly bombarded with features/information that the user doesn't need.

The goal of our application is to provide a lightweight and efficient tool to users that already have a plan/program and is just in need of a way to track what is actually important to them. No more viewing useless information the moment you open the application and only see the information that you actually need.



# APIs

## 1. Google Firebase Authentication

The Google Firebase Authentication API is used to manage user based data in the application

### Sample Code

```
import Firebase
FirebaseApp.configure()
//SIGNIN
Auth.auth().signIn(withEmail: email, password: password) { [weak self]
authResult, error in
    guard let strongSelf = self else { return }
    // ...
}
```

## 2. Google Firebase Firestore

The Google Firebase Firestore API is used to store user's goals and user information.

### Sample Code

```
import Firebase
FirebaseApp.configure()
db.collection("users").get().then(function(querySnapshot) {
    querySnapshot.forEach(function(doc) {
        // doc.data() is never undefined for query doc snapshots
        console.log(doc.id, " => ", doc.data());
    });
});
```

### 3. Apple HealthKit

The Apple HealthKit API is used to get and store user's activity information

#### Sample Code

```
//Get Step Count
func getStepsCount(forSpecificDate:Date, completion: @escaping (Double) -> Void) {
    let stepsQuantityType = HKQuantityType.quantityType(forIdentifier: .stepCount)!
    let (start, end) = self.getWholeDate(date: forSpecificDate)

    let predicate = HKQuery.predicateForSamples(withStart: start, end: end, options:
.strictStartDate)

    let query = HKStatisticsQuery(quantityType: stepsQuantityType,
quantitySamplePredicate: predicate, options: .cumulativeSum) { _, result, _ in
        guard let result = result, let sum = result.sumQuantity() else {
            completion(0.0)
            return
        }
        completion(sum.doubleValue(for: HKUnit.count()))
    }
    HK.healthStore.execute(query)
}
```

#### 4. Edamam Food and Grocery Database

```
func nutritionAPI(search: String) {
    self.data = []
    let headers = [
        "x-rapidapi-host": "edamam-food-and-grocery-database.p.rapidapi.com",
        "x-rapidapi-key": "aa6ffc8 Fcfe70169405p de01052c2ea0"
    ]

    let link = search.replacingOccurrences(of: " ", with: "%20")
    let request = NSMutableURLRequest(url: NSURL(string: "https://edamam-food-and-grocery-database.p.rapidapi.com/parser?ingr=" +
        link)! as URL, cachePolicy: .useProtocolCachePolicy, timeoutInterval: 10.0)
    request.httpMethod = "GET"
    request.allHTTPHeaderFields = headers

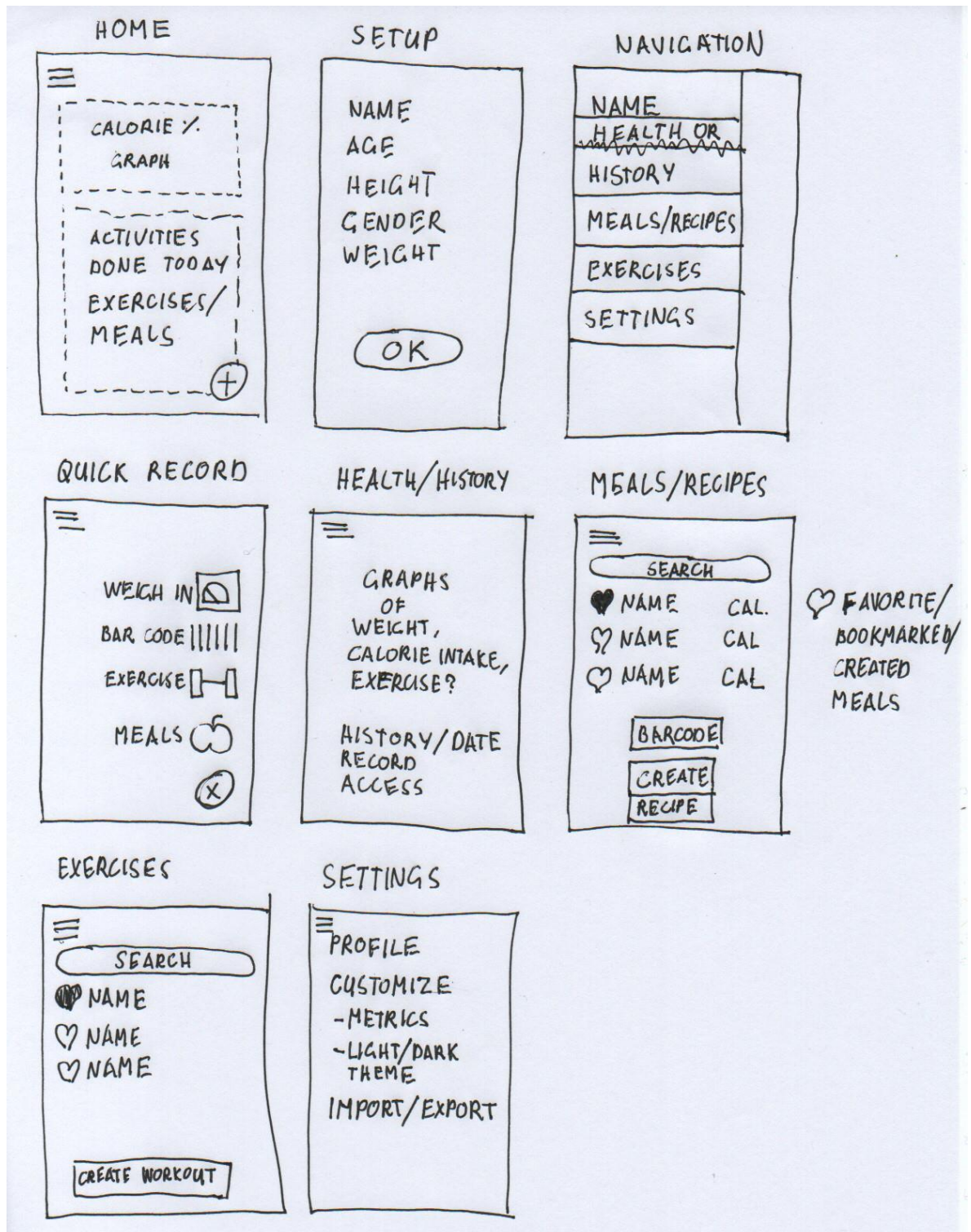
    let session = URLSession.shared
    let dataTask = session.dataTask(with: request as URLRequest, completionHandler: { (data, response, error) -> Void in
        if (error != nil || data == nil) {
            return
        } else {
            do {
                let JSONData = try JSONDecoder().decode(JSONResult.self, from: data!)
                print(JSONData)

            } catch {
                print(error)
            }
        }
    })
    dataTask.resume()
}
```

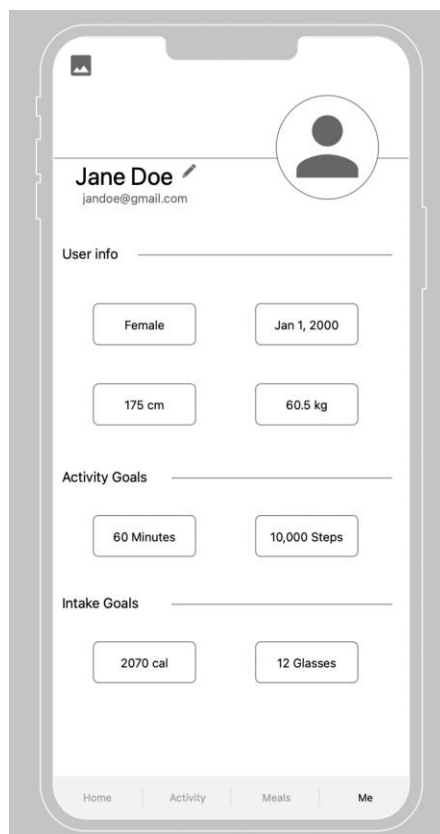
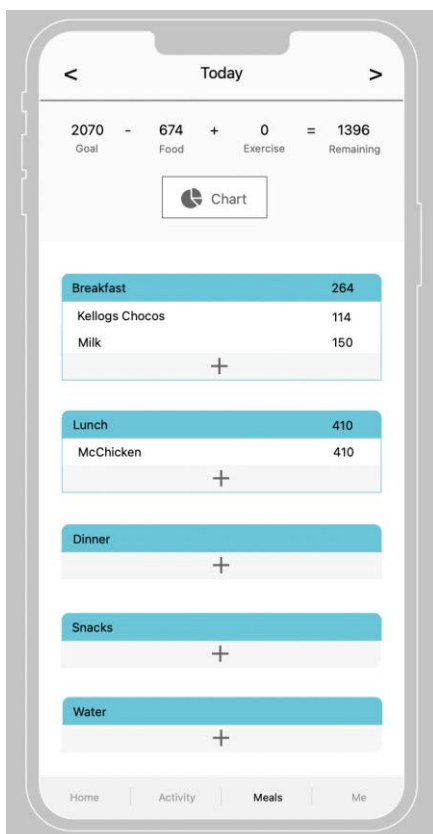
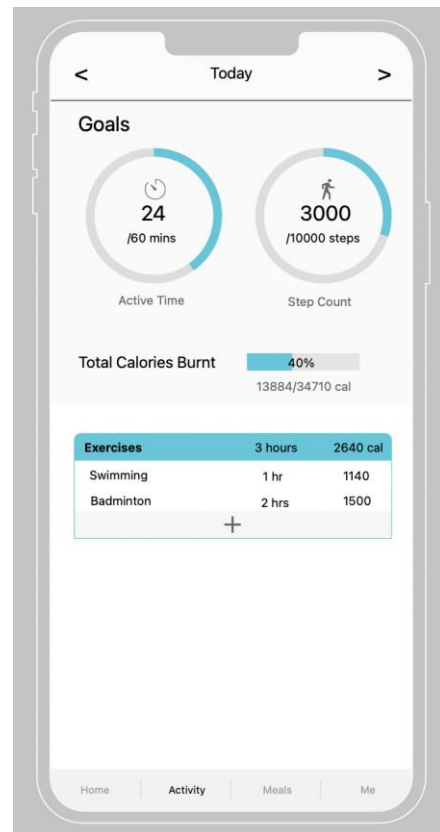
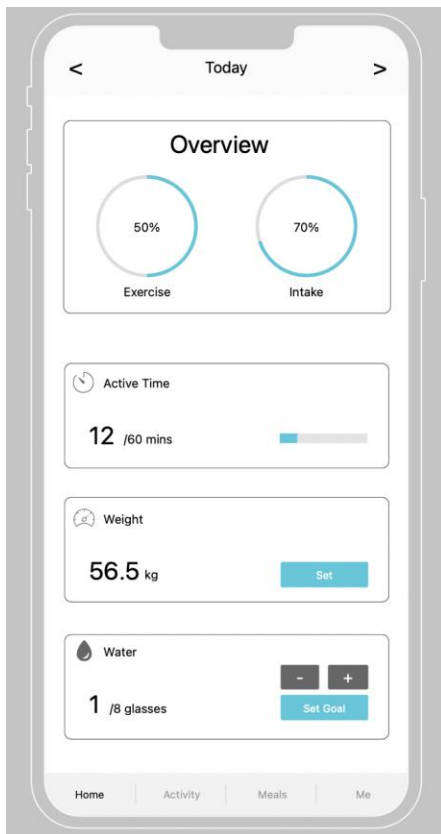
```
{
  "text": "gala apple",
  "parsed": [
    {
      "food": {
        "foodId": "food_bfh0qoxboasptbj3gqnkafdf2r9",
        "uri": "http://www.edamam.com/ontologies/edamam.owl#Food_gala_apple",
        "label": "gala apple",
        "nutrients": {
          "ENERC_KCAL": 57.0,
          "PROCNT": 0.25,
          "FAT": 0.12,
          "CHOCDF": 13.68,
          "FIBTG": 2.3
        },
        "category": "Generic foods",
        "categoryLabel": "food",
        "image":
        "https://www.edamam.com/foodimg/256/2568844fd3c89a9fa6ef0a07757ed572.jpg"
      }
    }
  ]
}
```

# Wireframes

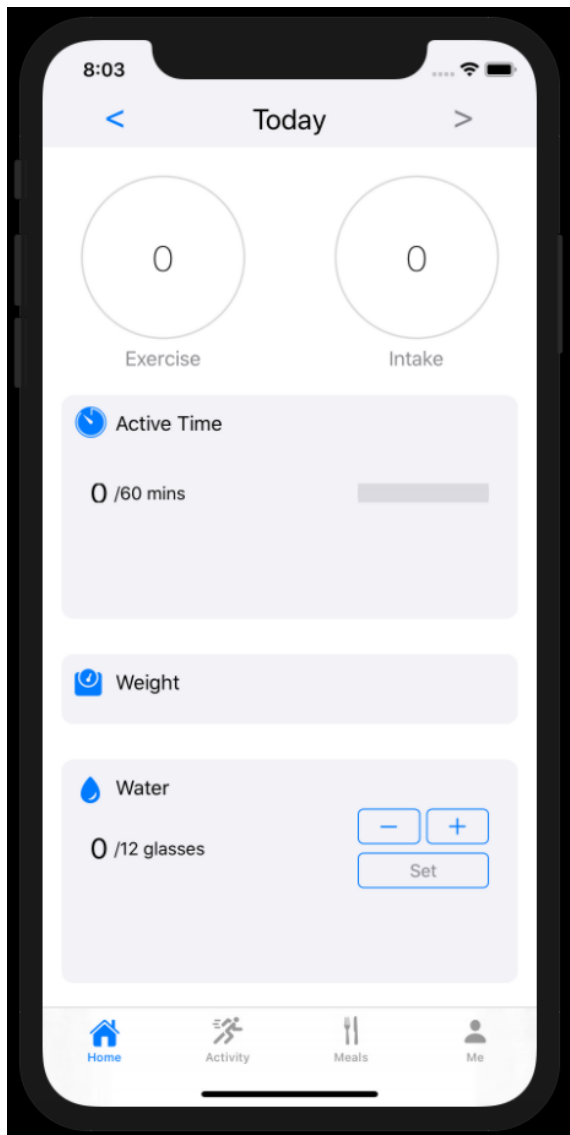
## I. Low Fidelity



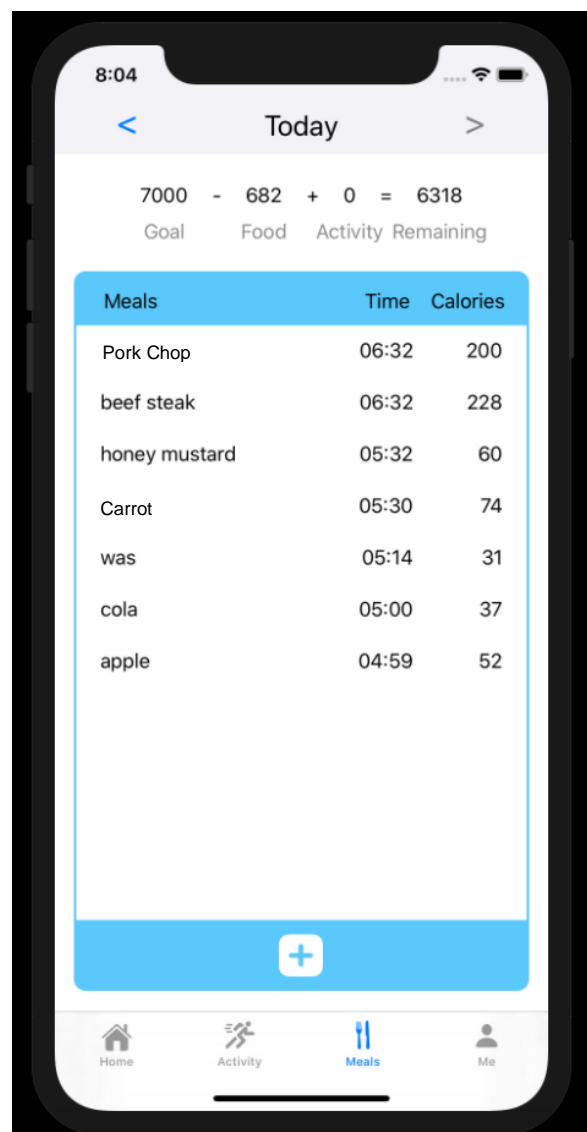
## II. Medium Fidelity



## Design Theme



We wanted to make the app lightweight and only show what you needed the moment you open the app and be able to input their data quickly. That is why we made the home app show the current day's progress towards the user's activity goal and their calorie intake limit. You can add your weight and the amount of water the user has consumed the moment you open the home app.



Due to the amount of input(meal name, calories per serving, and serving amount) needed from the user to accurately document the amount of calories a user has consumed, we created a view for adding and viewing meals consumed that day but still making sure it is easily accessible using the tab views

## Student Logs

Date	Agenda	Attendance				Remarks
		Senaru	Elodie	Punita	Angelo	
02/08	First Meeting	✓	✓	✓	✓	
03/08	Additional Meeting	✓	✓	✓	✓	
28/08	Last Meeting	✓	X	✓	✓	Found Some errors in the code, Elodie has dropped the subject

## Links

Github	<a href="https://github.com/rmit-S2-2020-iPhone/a1-s3696653_s3602636_s3705195_s3688144">https://github.com/rmit-S2-2020-iPhone/a1-s3696653_s3602636_s3705195_s3688144</a>
Trello Invitation	<a href="https://trello.com/invite/b/VAePLZXT/1cda7dbd71be2752585e30d30e60266a/iphone-se-project">https://trello.com/invite/b/VAePLZXT/1cda7dbd71be2752585e30d30e60266a/iphone-se-project</a>
Trello Board	<a href="https://trello.com/b/VAePLZXT/iphone-se-project">https://trello.com/b/VAePLZXT/iphone-se-project</a>



## Contribution

Senaru - S3696653

Assigned / Accepted Tasks	Completion	Remarks
Medium Fidelity Wireframes	Fully Completed	-
Storyboard UI for "Me" View	Fully Completed	-
Create and Link Firebase Project	Fully Completed	-
CircularProgress Bars for "Activity" View	Fully Completed	-
Setup Firebase Auth	Fully Completed	-
Storyboard UI for "Login" View	Fully Completed	-
Storyboard UI for "Signup" View	Fully Completed	-
Login Functions	Fully Completed	-
Logout Functions	Fully Completed	-
Signup Functions	Fully Completed	-
Integrate HealthKit and Request Permissions	Fully Completed	-
Fetching Data from Firestore and Displaying	Fully Completed	-
Editing Data and Pushing to firestore	Fully Completed	-
Adding User Management functions (Change email, name, password)	Fully Completed	-
Adding Transitions for all pages	Fully Completed	-
Date Navigation for Home View	Fully Completed	-
Date Navigation for Activity View	Fully Completed	-

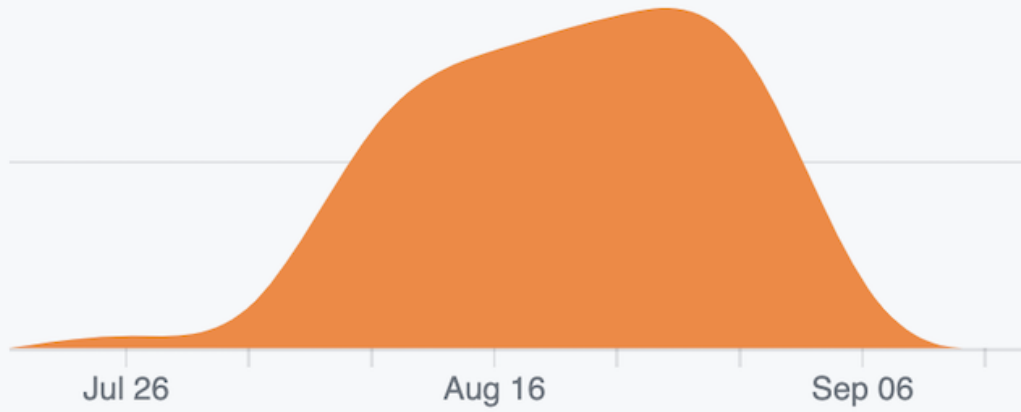




senaru

#1

68 commits 1,121,576 ++ 102,811 --



Angelo - s3688144

Assigned / Accepted Tasks	Completion	Remarks
Low Fidelity Wireframes	Fully Completed	-
Design Themes (Report)	Fully Completed	-
Finishing Up the Report	Fully Completed	Design Themes, API and References Not completed yet
Table Views for Meals Page	Fully Completed	-
Table View for Activity Page	Fully Completed	-
Integrate a Nutrition API	Fully Completed	-
Date Navigation	Fully Completed	-
Local database	Fully Completed	-
Table Data Always UpToDate	Fully Completed	-
User Meal Input Page	Fully Completed	-
Search Meal using API	Fully Completed	-
User Goal & Activity Integration	Partially Completed	Logic is currently integrated but is only using hardcoded user goal and activity data

Cannot show Github chart because only Senaru has access to it due to repository being private. Here is the major commit with all my files.

### Finished meal tab view

Finished meal tab view and fixed commit merge errors. Needed to deintegrate pod files so may need to do the same on other local repositories and install again.

SwiftCoding

GeloParlade committed 3 minutes ago

1 parent [d29b3f1](#) commit [8e4560874f0b91cee7f9297201c5d8cc7a0c420d](#)

Showing 95 changed files with 25,948 additions and 19,538 deletions.

Unified Split

Punita - s3705195

Assigned / Accepted Tasks	Completion	Remarks
Table Views for "Activity" View	Partially Completed	A view has been made, but instead of using UITableViews, comprised of UIViews
Storyboard UI for "Meals" View	Partially Completed	A view has been made, but instead of using UITableViews, comprised of UIViews
Make the Meals View Scrollable	Not Completed	-
Make the Activity view scrollable	Not Completed	-
Coding for Meals View	Not Completed	-



Elodie - s3602636

Assigned / Accepted Tasks	Completion	Remarks
Research for the Report	Fully Completed	-
App Statement Part of the Report	Fully Completed	-