GYMMIE

CSCI 499-02

Billy Wu
Syed Haque
Fowad Aslam
Gael Blanchard

FACTS

- America is one of the leading countries in obesity and diabetes. More than one-third of US adults are obese.
- BMI Calculator
- Diabetes is one of the leading causes of mortality in the US, resulting in more than 200,000 deaths per year
  - How can we prevent/manage diabetes?

GOALS

- Create an exciting fitness application that will help the user obtain their summer bod
- Learn how to construct a program using multiple programming languages
- Learn how to work in a team environment

Disclaimer: No guarantees our application will make you look like this guy

PROJECT SCHEMA

- User enters specific personal information (i.e. age, current weight, height, BMI, goal weight etc.)
- "Test-Run" (A small workout sample for the user to determine their physical capabilities)
- A series of workouts will be provided for user to complete according to the type of workout plan best suited for them.

LEVELLING SYSTEM

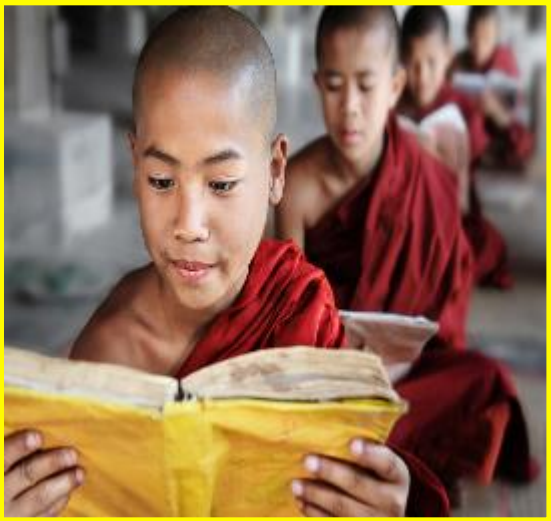
- Essential feature that encourages both progress and composure when embarking on a new workout journey
- Defined on experience points that a user earns with every workout they complete

LEVELLING SYSTEM

- Complete workouts and level up to harder, more rewarding workouts
- The hardest part of beginning a new workout plan or any lifestyle change is staying motivated and sticking to it

LEVELLING SYSTEM

- We want to take every user from beginner to expert
- Providing progress reports on a user request basis
- Understanding exactly how far a user is from their goal

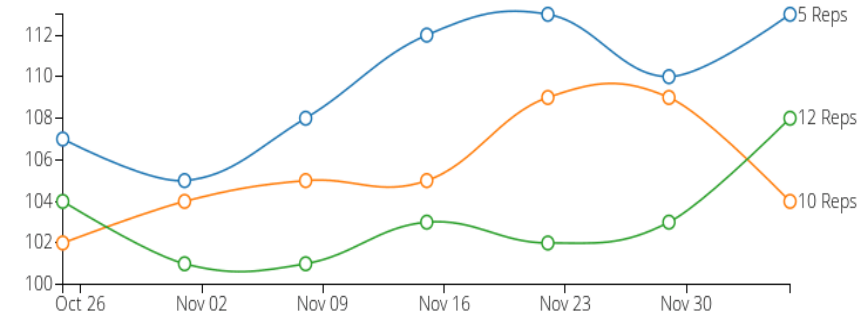


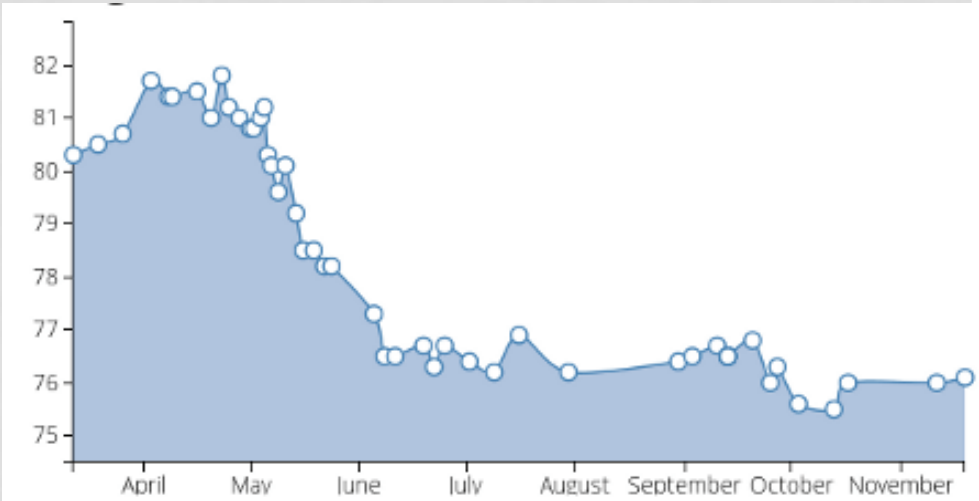
JOURNEY

LEVELLING SYSTEM

Toggle data table

25.10.2014		01.11.2014		08.11.2014		15.11.2014		22.11.2014		29.11.2014		06.12.2014	
Reps	kg	Reps	kg	Reps	kg	Reps	kg	Reps	kg	Reps	kg	Reps	kg
5×	107	5×	105	5×	108	5×	112	5×	113	5×	110	5×	113
10×	102	10×	104	10×	105	10×	105	10×	109	10×	109	10×	104
12×	104	12×	101	12×	101	12×	103	12×	102	12×	103	12×	108





Anterior deltoid

Biceps brachii

Pectoralis major

Quadriceps femoris

Rectus abdominis

Serratus anterior

Back

Biceps femoris

Gastrocnemius

Gluteus maximus

Latissimus dorsi

- Benchpress barbells
- Benchpress bumbbells
- Butterfly
- Butterfly narrow grip
- Decline Benchpress
- Decline bench press barbell
- Decline bench press bumbbell
- Fly with cable
- Pull-ups

WORKOUT/PLANS

- Different workouts are there to help achieve different results
- Each Workout has a separate difficulty level
- Each difficulty level varies in terms of sets/reps

*Each set/rep may vary based on routine

*Plans will be updated based on personal progress

WORKOUT NAMES

- The names of the workouts are pulled from www.bodybuilding.com
- A few of the workouts have been submitted by normal day users
- You can build your own workout and let others try it out (Give ratings/likes/comments)

DAILY ROUTINES

- The workouts have set routines to follow such as diet
- Users must follow these routines for best results

- Daily warmups will be recommended from the app to the user based on data entered & progress dynamically analyzed.

*Some workouts will recommend morning exercises

PLANS CAN CHANGE

- In any case, if you are injured or need to stop a workout, the app will learn and change the workout.
- The program will adjust to your new routine and set a new plan.
- You can set to terminate the whole plan or configure to your level of adjusting.

INJURIES

- There is a risk of injury doing almost anything, and with exercise, the likelihood is much greater.
- To deter this, we will build workouts that utilize the least risky exercises.
- Injuries will be linked to their own muscle groups, body parts, etc.

DATA

- Injuries will be compiled from online databases such as WebMd which has an exhaustive list of injuries.
- The user will input their own injuries as we do not have any other means to acquire this information.

EVALUATING INJURIES

- To figure any possible injuries or risk of making anything worse we will :
  - Allow the user to find the injury they have off our lists
  - Input their own injury information
    - The will include all the relevant information
      - Location of Pain
      - Severity of Pain
- Evaluate Muscle Imbalances

EFFECTS OF INJURIES

- Based off user input, change workout regimen.
- Give suggestions on rehabilitation to help the user get back to their full stride.
- Remove some workout suggestions entirely.

TECHNICALITIES

- Programming languages to be used:
- Web App - HTML/JavaScript/ CSS, C++, Python(Django Framework)
- Phone App - Java

- Data will be collected from bodybuilding.com (1)

TECHNOLOGIES

***TO BE CONSIDERED

TECHNOLOGIES

- Add a phone component to our app
- Uses Java as it's primary language

EXPECTED CHALLENGES

- Learning multiple new programming languages
- Understanding how to integrate the data from our database into our website
- Pattern analysis to determine each level and how that translates to exercise