

Comp 55 Application Development

JumpStart

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- User Interface Design (75%)
- Plan of Work (100%)

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- Customer Statement of Requirements (100%)
- Glossary of Terms (50%)
- Functional Requirements Specification (40%)

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- Functional Requirements Specification (60%)

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- Cover Page and Individual Contributions Breakdown (100%)
- User Interface Design (25%)

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Customer Statement of Requirements

Health is wealth. Whether you are in pursuit of a chiseled body or just want to maintain a healthy lifestyle, Jumpstart can help you stay accountable. Fitness is not a destination but rather a lifelong commitment to taking care of your physical wellness. Often times, people are easily discouraged by slow results and progress. Jumpstart helps track progress to provide users the ability to see the hard work they put in when the mirror may not reflect it. According to, Rachel Dixon for The Guardian, photographic motivation causes the inverse effect and makes the end goal seemingly intangible. With statistical analysis at the user's fingertips they will be able to see their weekly performance and monthly performance allowing them to adjust their workouts accordingly. Currently, users have to use separate applications to track different aspects of their progress and our goal is to consolidate features into one user-friendly interface. With Jumpstart, users will have a note-taking interface which will provide them the opportunity to plan ahead and prioritize working out into their schedules which Dixon states is a great way to stick to your fitness regime. The application will provide a variation of workouts tailored to specific muscle groups keeping users engaged, lack of interest in workouts has been shown to greatly diminish progress and leads back to sedentary ways.

Glossary of Terms

Chest: large pectoralis major, smaller pectoralis minor

Arms: triceps, biceps

Shoulders: deltoids – anterior, middle, posterior head

Back: upper and outer lats, lower lats, middle back, lower back

Core: trunk flexors, back extensors, obliques

Cardio: exercise to raise your heart rate for at least 20 minutes

Legs: Hamstrings, quads, and calves

Bulk: gaining muscle and fat at about equal weight to gain muscle mass as quickly as possible

Cut: dropping body fat, while attempting to preserve as much muscle mass as possible

Average: Refers to the mean of the data. Each time the user generates a 7-minutes workout the count for the week will be updated. The weekly counts will be used to generate the average

amount of workouts per week for a month. So, $\mu = \frac{\sum \text{weekly count}}{4}$

Max: Will be the exercise with the highest count

Min: Will be the exercise with the lowest count

Function Requirements Specification

A. Stake Holders

- a. Users
 - i. Avid gym goers
 - ii. Body builders
 - iii. First-time gym users
 - iv. People without a gym membership
 - v. People interested in beginning their fitness journey
- b. Sponsors
 - i. Gym owners
 - ii. Doctors interested in physical wellness
 - iii. Fitness gurus

B. Actors and Goals

- a. Initiating
 - i. Goals – making health and fitness accessible for all
- b. Participating
 - i. Goals – fitness and health

Casual Description:

Workout:

User opens the program and selects workout. It generates a workout for them, and increments the count associated with that particular workout. User can quit at any time, but unless the workout is completed the count will not increment.

Statistics:

User selects statistics and then the program displays some simple histograms with the average amount of times they worked out per week included. User will be able to look at past months. User can quit at any time.

Notes:

User selects notes, and an interface for setting goals and personal records appears. User can quit at any time.

Fully-Dressed Description

Workout Main Path:

1. User opens program
2. Program displays a menu (Workout, statistics, Notes, quit)
3. User selects work out
4. Program prompts user to select a workout type (bulk/cut)
5. After selection, program prompts user to select a muscle group
6. After selection, program provides a list of exercises for the user to complete
7. If user makes it through the 7 minutes allotted for the workout, update the count
 - **Alt Path:** User quits workout, and count is not updated then resumes as normal
8. Returns to the main menu
9. User exits the program

Statistics Main Path:

1. User opens program
2. User selects statistics from menu
3. Program displays the following statistics:
 - Program displays a histogram of each work out type and the frequency for each (gets frequency from counts variable for each workout type)
 - Display labels for the workout they did the most of, (mode of the dataset) and the least frequent workout on the histogram
 - Have a separate label displayed that displays the average number of times they performed each work out per unit time. (Calculate the mean for each workout. *Only allow this if a sufficient amount of data is present*)
4. Possibly sort all by week/month/year

Notes Main Path (Updating notes):

1. User selects notes from menu
2. User writes down goals/ PR's / injuries in labeled text boxes
3. Changes are saved
4. Users quits

Notes Alt Path (Updating info):

1. User selects notes from menu
2. User selects update information after selecting notes
3. Update their body measurements
4. User exits and updates are saved

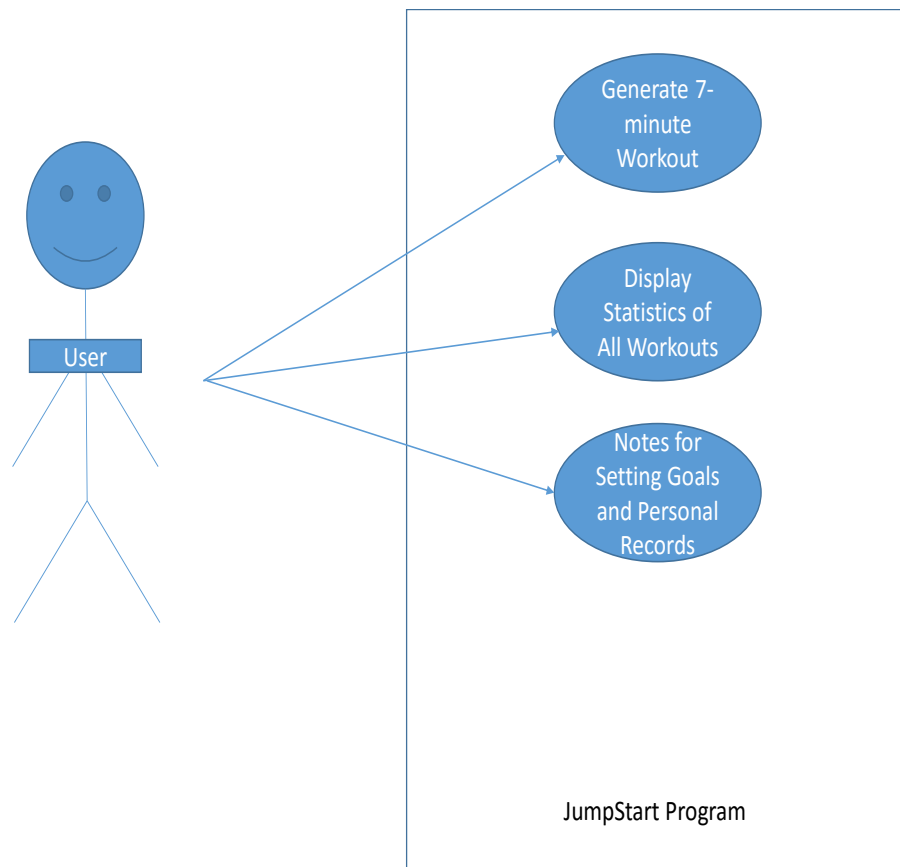
General Alt Path (Quits from menu):

1. User selects quit at main menu
2. Program exits

General Alt Path (Quits from anywhere else):

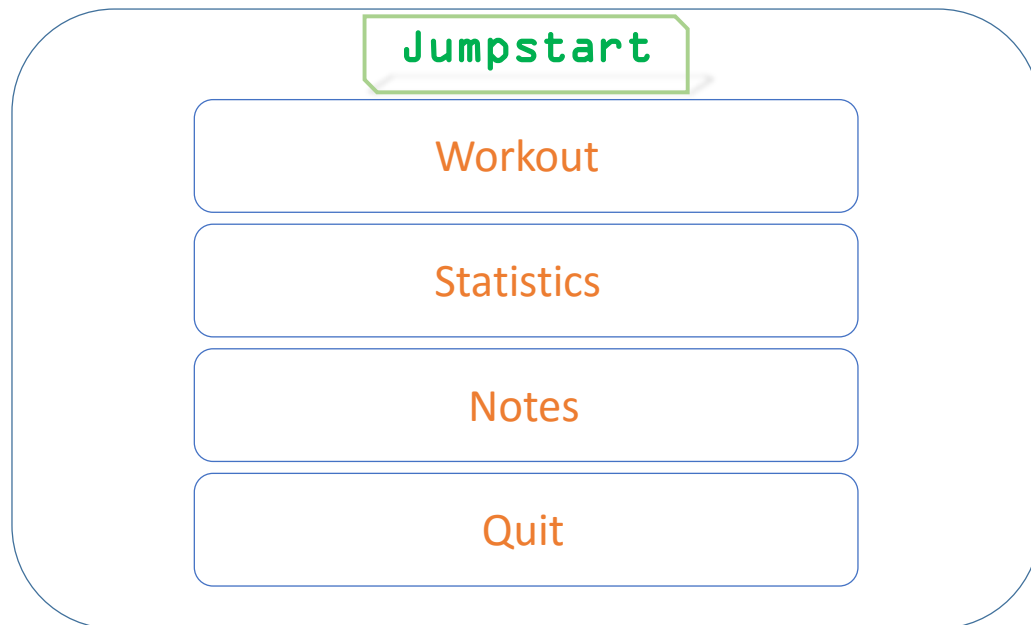
1. User selects quit during a workout or in statistics (Should be able to do this after any step in any use case)
2. Program exits to main menu

Use Case Diagram

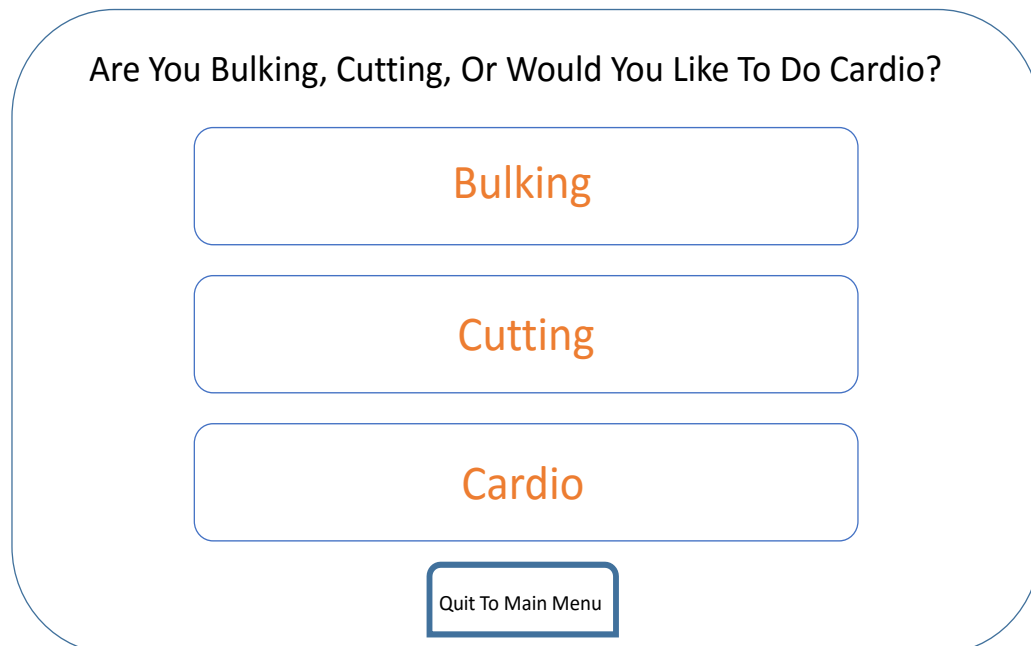


User Interface Design

Preliminary design



Note: This Is The Main Menu The User Sees When The Application Starts



Note: If The User Clicks Workout They're Taken To This Page

Please Select A Muscle Group To Workout

Chest

Arms

Shoulders

Back

Legs

Core

Quit To Main Menu

Note: If The User Clicks Bulking/Cutting They Will Be Taken To A Page Like This Workouts Will Vary On Their Choice Of Bulking/Cutting. Cardio Will Be Preset And Take Them Into A Workout.

Quit To Main Menu

Name Of Current Exercise

Pause/Start Button

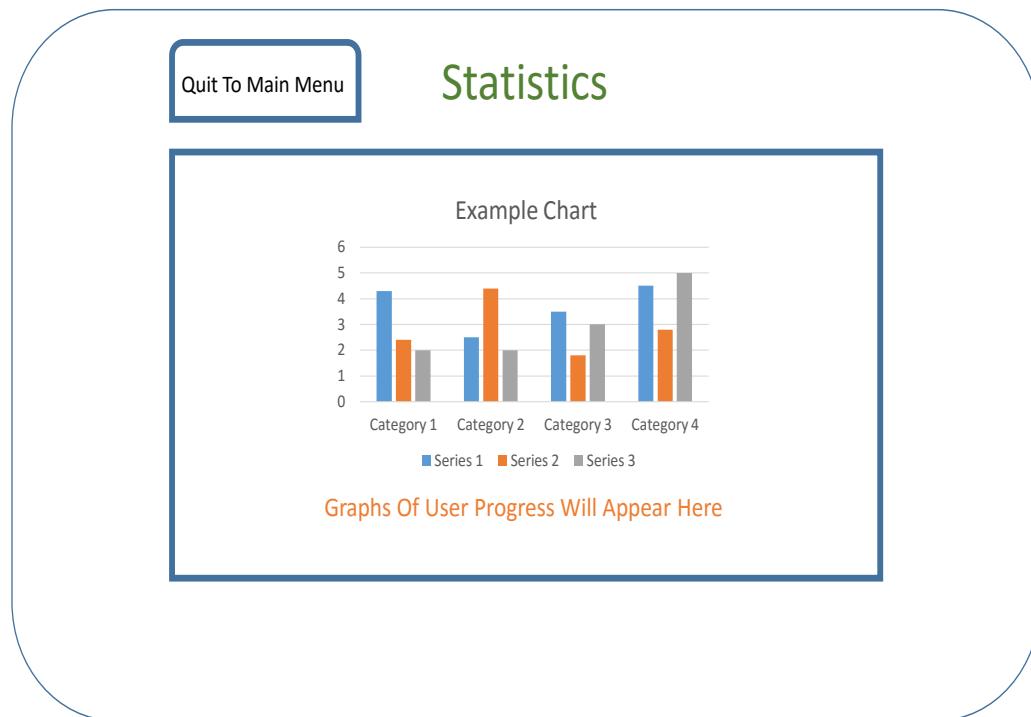
Back

Workout Animation/Video/Image Will Appear Here

Skip

Timer Will Appear On This Page And Count Down As We Cycle Through The Routine

Note: If The User Clicks A Muscle Group They're Taken Here, Or If They Selected Cardio.



Note: If The User Clicks Statistics They're Taken To This Page

Quit To Main Menu

Notes

User Can Write Add And View Their Notes Here

Edit Save

Note: If The User Clicks Notes They're Taken To This Page

User Effort Estimation

Usage Scenario 1: User wants to select a Workout

First Click: User selects Workout

Second Click: User selects Bulking, Cutting or Cardio

Third Click: User then selects a muscle group if they picked Bulking or Cutting, an image pops up with an exercise for the selected muscle and timer start to count down

Fourth Click: if the user wishes they can skip the exercise and choose another muscle group to work out

Total Clicks: 3 to 4 possibly more if the user wish's to skip other exercises

Usage Scenario 2: User wish's to view their Statistics

Click one: User selects Statistics from the main menu

Total clicks: one

Usage Scenario 3: User wish's to selects their notes

First Click: User selects Notes from the main menu

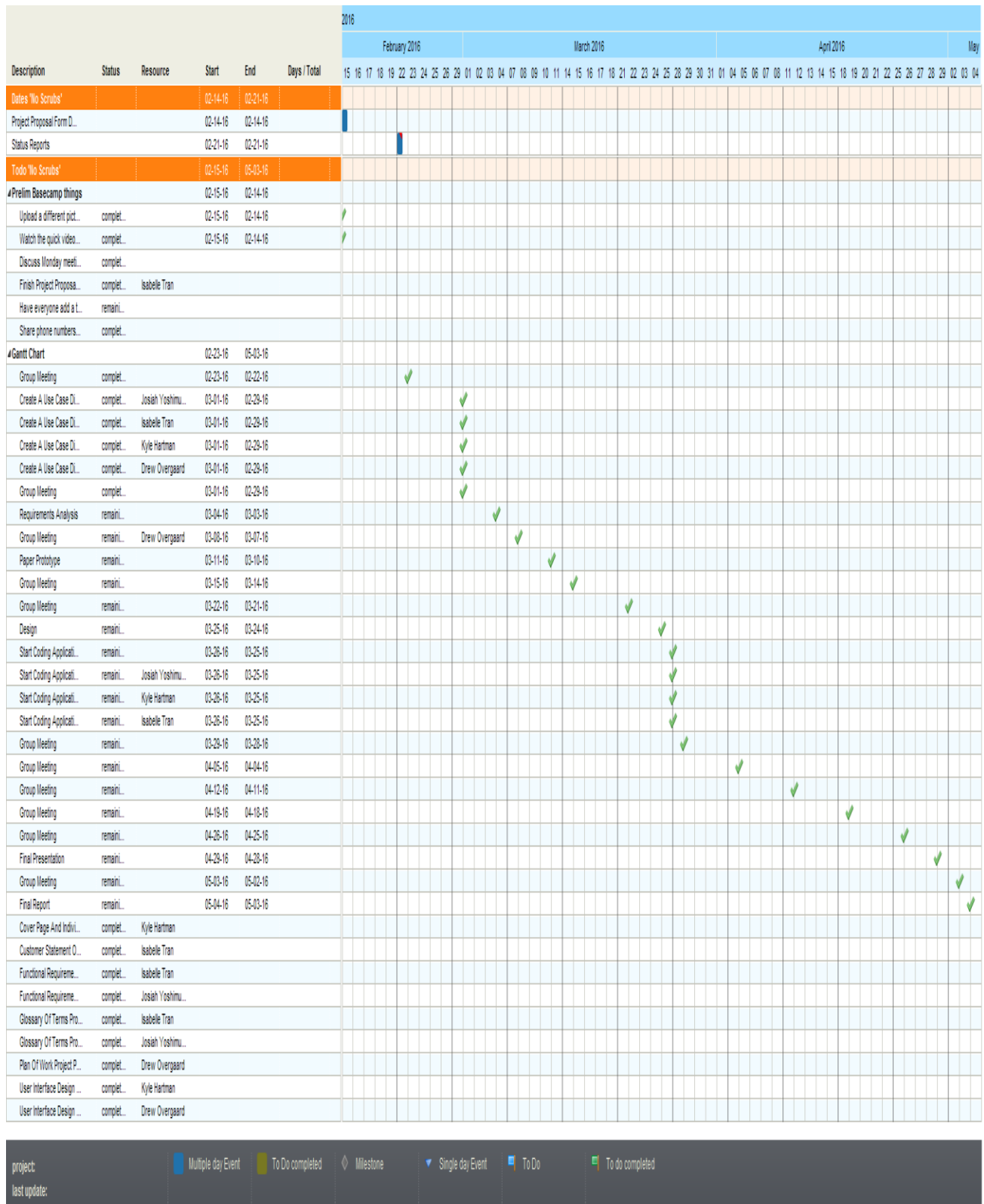
Second Click: User selects to create a new note

Third Click: User wish's to edit notes

Fourth Click: User then selects save, to save the note they just created or edited

Total Clicks: 4

Plan of Work



References

<http://www.theguardian.com/lifeandstyle/2011/jan/07/fitness-regime-stay-motivated>

<http://www.bodybuilding.com>

<https://human.biodigital.com/index.html>