

**Avatar Fitness**

Release: 1

Version: 1.0

Date: 12/05/2014

Responsible Analyst: Dylan Schultz

Email Address: dylan.schultz@oit.edu

# Signature Page

Before signing this document, please ensure all information enclosed is correct.

Responsible Analyst: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Printed Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Professor: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Printed Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

# Revision History

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Author | Company | Version | Date | File Name | Comments |
| Dylan Schultz | Dylan Inc. | 0.0 | October 24th, 2014 | CST 412 Use Case Model Dylan Schultz | This is the initial draft. Within it is title page, signatory page, revision history, TOC, context diagram, use case catalog, actor catalog. |
| Dylan Schultz | Dylan Inc. | 0.1 | October 28th, 2014 | CST 412 Use Case Model Dylan Schultz | Continuing work on initial draft. Updated context diagram via removing actor Wall Clock and condensing use cases into End User actor. |
| Dylan Schultz | Dylan Inc. | 0.2 | October 29th, 2014 | CST 412 Use Case Model Dylan Schultz | Added Use cases, CRUD matrix, feature matrix, low fidelity ui |
| Dylan Schultz | Dylan Inc. | 0.3 | November 17th, 2014 | CST 412 Use Case Model Dylan Schultz | Updated CRUD Matrix |
| Dylan Schultz | Dylan Inc. | 1.0 | December 5th, 2014 | CST 412 Use Case Model Dylan Schultz | Added dynamic models |

Contents

[1 Signature Page 2](#_Toc405567075)

[2 Revision History 3](#_Toc405567076)

[3 Context Diagram 5](#_Toc405567077)

[4 Use Case Catalog 7](#_Toc405567078)

[5 Actor Catalog 8](#_Toc405567079)

[6 Features Verification Matrix 9](#_Toc405567080)

[7 Use Case Specifications 10](#_Toc405567081)

[7.1 Log In 10](#_Toc405567082)

[7.1.1 Scenario 10](#_Toc405567083)

[7.1.2 Sequence Diagram 10](#_Toc405567084)

[7.1.3 Specification 11](#_Toc405567085)

[7.2 Begin Workout 14](#_Toc405567086)

[7.2.1 Scenario 14](#_Toc405567087)

[7.2.2 Sequence Diagram 14](#_Toc405567088)

[7.2.3 Specification 14](#_Toc405567089)

[7.3 Complete Workout 18](#_Toc405567090)

[7.3.1 Scenario 18](#_Toc405567091)

[7.3.2 Sequence Diagram 18](#_Toc405567092)

[7.3.3 Specification 18](#_Toc405567093)

[7.4 Create Account 22](#_Toc405567094)

[7.4.1 Scenario 22](#_Toc405567095)

[7.4.2 Sequence Diagram 22](#_Toc405567096)

[7.4.3 Specification 22](#_Toc405567097)

[7.5 Change Avatar 26](#_Toc405567098)

[7.5.1 Scenario 26](#_Toc405567099)

[7.5.2 Sequence Diagram 26](#_Toc405567100)

[7.5.3 Specification 26](#_Toc405567101)

[7.6 Open Application 30](#_Toc405567102)

[7.6.1 Scenario 30](#_Toc405567103)

[7.6.2 Sequence Diagram 30](#_Toc405567104)

[7.6.3 Specification 30](#_Toc405567105)

[7.7 Close Application 33](#_Toc405567106)

[7.7.1 Scenario 33](#_Toc405567107)

[7.7.2 Sequence Diagram 33](#_Toc405567108)

[7.7.3 Specification 33](#_Toc405567109)

[7.8 Log Statistics 36](#_Toc405567110)

[7.8.1 Scenario 36](#_Toc405567111)

[7.8.2 Sequence Diagram 36](#_Toc405567112)

[7.8.3 Specification 36](#_Toc405567113)

[7.9 Add Statistic 40](#_Toc405567114)

[7.9.1 Scenario 40](#_Toc405567115)

[7.9.2 Sequence Diagram 40](#_Toc405567116)

[7.9.3 Specification 40](#_Toc405567117)

[8 CRUD Matrix 44](#_Toc405567118)

[9 Low Fidelity UI 45](#_Toc405567119)

[10 Glossary 46](#_Toc405567120)

[11 Appendix A 47](#_Toc405567121)

[11.1 Business Rules 47](#_Toc405567122)

# Context Diagram



# Use Case Catalog

|  |  |  |  |
| --- | --- | --- | --- |
| ID | Name | Actor | Description |
| 1 | Log In | End User | Process by which the user logs into the system |
| 2 | Begin Workout | End User | Process by which the user begins a workout; stop watch |
| 3 | Complete Workout | End User | Process by which the user stops the workout timer. After the workout is stopped, the user will be polled for the intensity of the workout. Finally, the data will be pushed to database. |
| 4 | Create Account | End User | Process by which the user creates an avatar to represent themselves and the associated account |
| 5 | Change Avatar | End User | Process by which the user changes the appearance of their avatar |
| 6 | Open Application | End User | Process by which the user opens the application |
| 7 | Close Application | End User | Process by which the user closes the application |
| 8 | Log Statistics | End User | Process by which the user logs data about themselves, including weight, body fat %, waist circumference, etc. |
| 9 | Add Statistic | End User | Process by which the user adds a statistic to the list to record |

# Actor Catalog

|  |  |  |
| --- | --- | --- |
| Name | Type | Description |
| End User | Active | The direct user of the application |

# Features Verification Matrix

|  |  |  |
| --- | --- | --- |
| Use Case ID | Use Case Name | Function Requirement # |
| 1 | Log In | 1, 10 |
| 2 | Begin Workout | 3a |
| 3 | Complete Workout | 3b, 4, 6, 10 |
| 4 | Create Account | 1, 7, 10 |
| 5 | Change Avatar | 7, 10 |
| 6 | Open Application | N/A |
| 7 | Close Application | N/A |
| 8 | Log Statistics | 2, 5, 8, 10 |
| 9 | Add Statistic | 2, 5, 8, 10 |

# Use Case Specifications

## Log In

### Scenario

User enters login username and password

User selects “Enter”

System queries database if username/password combination are correct

System accepts user log in

System creates home page

System displays home page

### Sequence Diagram



### Specification

|  |  |
| --- | --- |
| General Information | |
| Use Case Name\Number : LOGIN 001  Subject Area : Application Management  Description : User wants to log in to use application | Responsible Analyst : Dylan |

|  |  |
| --- | --- |
| Requirements/Feature Trace | |
| **REQ#** | Requirements Name and / or Short Description |
| 1 | The system shall require a user account. |
| 10 | The system shall have a database. |

|  |  |  |
| --- | --- | --- |
| Revision History | | |
| Author | **Date** | **Comments** |
| Dylan Schultz | 10/15/14 | Initial Revision |

|  |  |  |
| --- | --- | --- |
| **Insertion Points in other Use Cases** | | |
| Use Case Name | **Use Case Number** | **Step Inserted After** |
| N/A |  |  |

|  |  |  |
| --- | --- | --- |
| **Actors** | | |
| **Actor Name** | **Person/System** | **Brief Description** |
| User | Person | User that is currently using the application. End User. |

|  |  |
| --- | --- |
| **Pre-Conditions** | |
| # | Description |
| 1 | Application must first have been started. |

|  |
| --- |
| **Start Stimulus** |
| User enters login information |

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Main Course Steps** | | | |
| **Number** | **Description** | **Adds/Alt Name/Number** | **Bus Rule#** |
| 1 | User enters login username |  |  |
| 2 | Use enters login password |  |  |
| 3 | Users selects ‘enter’ |  |  |
| 4 | System checks database against user login/password |  |  |
| 5 | System displays home screen |  |  |

|  |  |  |
| --- | --- | --- |
| **Exception Conditions** | | |
| **Exception Situations** | **Action(s) on Exception** | **Adds\Alt UC #** |
| User Enters Invalid login/password | System presents error invalid pin login/password message and reverts back to login screen |  |
| User hits cancel | Application displays exit confirmation screen |  |
| User has no login/password and must create one | Application displays register user screen |  |

|  |  |
| --- | --- |
| Post-Conditions | |
| **#** | **Description** |
| 1 | Application displays welcome screen |
| 2 | User is now logged in |

|  |  |  |
| --- | --- | --- |
| **Candidate Objects** | | |
| **Class/Object Name** | **Descriptions** | **Possible**  **attributes** |
| Account | Contains account information | Username, password, points |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Assumptions** | | | | | |
| **#** | **Assumption** | **Date**  **Raised** | **Raised**  **By** | **Date**  **Verified** | **Verified By** |
| 1 | Languages supported are English | 10/15/14 | Schultz |  |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Issues** | | | | | |
| **#** | **Issue** | **Date**  **Raised** | **Raised**  **By** | **Date**  **Verified** | **Verified By** |
| 1 | Login database not created/populated | 10/15/14 | Schultz |  |  |

|  |  |  |
| --- | --- | --- |
| **Other Comments** | | |
| **Author** | **Comment** | **Date** |
| Schultz | Should be implemented using an SQLite database | 10/15/2014 |

|  |
| --- |
| Frequency of Execution |
| **Frequency:**  Minimum: 25 Maximum: 250 Average: 150 (OR)Fixed:  **Per:** Hour:Day:  Week:  Month:  Other: |

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Timing Information** | | | | | | | | | | | |
| **#** | **At/**  **Between** | **Step(s)** | **Timing**  **Unit** | | **Minimum** | | **Average** | | **Maximum** | | **Comments** |
| 1 | Between | 6, 7 | Seconds | |  | |  | | 3 | | Shouldn’t take long to log in. |
| **Volume Information** | | | | | | | | | | | |
| **#** | **Step #** | **Unit of**  **Measure** | | **Minimum** | | **Average** | | **Maximum** | | **Comments** | |
| 1 | 6 | bytes | | 2K | | 4K | | 6K | | Login information | |

## Begin Workout

### Scenario

User selects “Begin Workout” button

System creates workout page

System displays workout page

### Sequence Diagram



### Specification

|  |  |
| --- | --- |
| General Information | |
| Use Case Name\Number : WORKOUT 001  Subject Area : Data Recording  Description : User wants to begin working out | Responsible Analyst : Dylan |

|  |  |
| --- | --- |
| Requirements/Feature Trace | |
| **REQ#** | Requirements Name and / or Short Description |
| 3a | The System shall log workout timeframes |

|  |  |  |
| --- | --- | --- |
| Revision History | | |
| Author | **Date** | **Comments** |
| Dylan Schultz | 10/28/14 | Initial Draft |

|  |  |  |
| --- | --- | --- |
| **Insertion Points in other Use Cases** | | |
| Use Case Name | **Use Case Number** | **Step Inserted After** |
| N/A |  |  |

|  |  |  |
| --- | --- | --- |
| **Actors** | | |
| **Actor Name** | **Person/System** | **Brief Description** |
| End User | Person | User of application |

|  |  |
| --- | --- |
| **Pre-Conditions** | |
| # | Description |
| 1 | Use must be first logged in and on home screen |

|  |
| --- |
| **Start Stimulus** |
| User selects “Begin Workout” icon |

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Main Course Steps** | | | |
| **Number** | **Description** | **Adds/Alt Name/Number** | **Bus Rule#** |
| 1 | User selects “Begin Workout” icon |  |  |
| 2 | System queries user for workout description |  |  |
| 3 | User enters workout description |  |  |
| 4 | System begins internal stop watch |  |  |
| 5 | System displays stop watch window |  |  |

|  |  |  |
| --- | --- | --- |
| **Exception Conditions** | | |
| **Exception Situations** | **Action(s) on Exception** | **Adds\Alt UC #** |
| User doesn’t enter workout description | System continues without logging description. Empty entry is acceptable. |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Issues** | | | | | |
| **#** | **Issue** | **Date**  **Raised** | **Raised**  **By** | **Date**  **Verified** | **Verified By** |
| 1 | Can’t log in, therefore can’t begin logging workout | 10/28/14 | Schultz |  |  |

|  |  |  |
| --- | --- | --- |
| **Other Comments** | | |
| **Author** | **Comment** | **Date** |
| Schultz | Need some form of connection class to database | 10/28/14 |

|  |  |
| --- | --- |
| Post-Conditions | |
| **#** | **Description** |
| 1 | System temporarily records description |
| 2 | System begins keeping track of change in time |

|  |  |  |
| --- | --- | --- |
| **Candidate Objects** | | |
| **Class/Object Name** | **Descriptions** | **Possible**  **attributes** |
| Workout | Contains information regarding a workout | Description, time length, intensity |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Assumptions** | | | | | |
| **#** | **Assumption** | **Date**  **Raised** | **Raised**  **By** | **Date**  **Verified** | **Verified By** |
| 1 | Languages supported are English | 10/15/14 | Schultz |  |  |

|  |
| --- |
| Frequency of Execution |
| **Frequency:**  Minimum: 25 Maximum: 250 Average: 150 (OR)Fixed:  **Per:** Hour:Day:  Week:  Month:  Other: |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Timing Information** | | | | | | | |
| **#** | **At/**  **Between** | **Step(s)** | **Timing**  **Unit** | **Minimum** | **Average** | **Maximum** | **Comments** |
| 1 | Between | 4, 5 | Seconds |  |  | 3 | Should not take long to switch screens |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Volume Information** | | | | | | |
| **#** | **Step #** | **Unit of**  **Measure** | **Minimum** | **Average** | **Maximum** | **Comments** |
| 1 | N/A |  |  |  |  |  |

## Complete Workout

### Scenario

User selects “End Workout” icon

System stops workout timer

User enters workout description

System logs workout duration and description

System displays home screen

### Sequence Diagram



### Specification

|  |  |
| --- | --- |
| General Information | |
| Use Case Name\Number : WORKOUT 002  Subject Area : Data Recording  Description : User wants to finish working out | Responsible Analyst : Dylan |

|  |  |
| --- | --- |
| Requirements/Feature Trace | |
| **REQ#** | Requirements Name and / or Short Description |
| 3b | The system shall log workout timeframes |
| 4 | The system shall log workout intensity |
| 6 | The system shall allow users to earn points through workout intensity |
| 10 | The system shall have a database. |

|  |  |  |
| --- | --- | --- |
| Revision History | | |
| Author | **Date** | **Comments** |
| Dylan Schultz | 10/28/14 | Initial revision |

|  |  |  |
| --- | --- | --- |
| **Insertion Points in other Use Cases** | | |
| Use Case Name | **Use Case Number** | **Step Inserted After** |
| N/A |  |  |

|  |  |  |
| --- | --- | --- |
| **Actors** | | |
| **Actor Name** | **Person/System** | **Brief Description** |
| End User | Person | User of the application |

|  |  |
| --- | --- |
| **Pre-Conditions** | |
| # | Description |
| 1 | Workout must first have been started |

|  |
| --- |
| **Start Stimulus** |
| User selects “End Workout” icon |

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Main Course Steps** | | | |
| **Number** | **Description** | **Adds/Alt Name/Number** | **Bus Rule#** |
| 1 | User selects “End Workout” icon |  |  |
| 2 | System stops keeping track of time and logs it |  |  |
| 3 | System polls user for workout description |  |  |
| 4 | User enters workout description |  |  |
| 5 | System pushes workout data to database |  |  |
| 6 | System displays home screen |  |  |

|  |  |  |
| --- | --- | --- |
| **Exception Conditions** | | |
| **Exception Situations** | **Action(s) on Exception** | **Adds\Alt UC #** |
| User doesn’t select intensity | System pushes notification confirming user doesn’t wish to enter intensity. Default intensity is 5. |  |

|  |  |
| --- | --- |
| Post-Conditions | |
| **#** | **Description** |
| 1 | Database is updated with new workout data |
| 2 | System stops keeping track of workout duration |
| 3 | System displays home screen |

|  |  |  |
| --- | --- | --- |
| **Candidate Objects** | | |
| **Class/Object Name** | **Descriptions** | **Possible**  **attributes** |
| Workout | Contains information regarding a workout | Description, time length, intensity |
| Account | Contains account information | Username, password, points |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Assumptions** | | | | | |
| **#** | **Assumption** | **Date**  **Raised** | **Raised**  **By** | **Date**  **Verified** | **Verified By** |
| 1 | Languages supported are English | 10/28/14 | Schultz |  |  |
|  |  |  |  |  |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Issues** | | | | | |
| **#** | **Issue** | **Date**  **Raised** | **Raised**  **By** | **Date**  **Verified** | **Verified By** |
| 1 | Can’t begin workout, therefore can’t finish one | 10/28/14 | Schultz |  |  |
|  |  |  |  |  |  |

|  |  |  |
| --- | --- | --- |
| **Other Comments** | | |
| **Author** | **Comment** | **Date** |
| Schultz | Perhaps add a general database check with conclusion of workout? | 10/28/14 |
|  |  |  |

|  |
| --- |
| Frequency of Execution |
| **Frequency:**  Minimum: 25 Maximum: 250 Average: 150 (OR)Fixed:  **Per:** Hour:Day:  Week:  Month:  Other: |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Timing Information** | | | | | | | |
| **#** | **At/**  **Between** | **Step(s)** | **Timing**  **Unit** | **Minimum** | **Average** | **Maximum** | **Comments** |
| 1 | At | 6 | Seconds |  |  | 1 | Without the user knowing what’s happing in the background, application should continue working. 1 second acceptable “lag” time |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Volume Information** | | | | | | |
| **#** | **Step #** | **Unit of**  **Measure** | **Minimum** | **Average** | **Maximum** | **Comments** |
| 1 | 7 | bytes | 2K | 4K | 6K | Workout information |

## Create Account

### Scenario

User selects “Create Account” button

System displays Account Creation page

User selects username and password

User selects avatar appearance

User selects “Accept” button

System queries database if username/password is taken

System automatically logs in and displays home screen

### Sequence Diagram



### Specification

|  |  |  |
| --- | --- | --- |
| General Information | | |
| Use Case Name\Number : AVATAR 001  Subject Area : Account Creation  Description : User wants to create an account | | Responsible Analyst : Dylan |
| Requirements/Feature Trace | | |
| **REQ#** | Requirements Name and / or Short Description | |
| 1 | The system shall require a user account. | |
| 7 | The system shall have an avatar on a per-use basis. | |
| 10 | The system shall have a database. | |

|  |  |  |
| --- | --- | --- |
| Revision History | | |
| Author | **Date** | **Comments** |
| Dylan Schultz | 10/29/14 | Initial draft |

|  |  |  |
| --- | --- | --- |
| **Insertion Points in other Use Cases** | | |
| Use Case Name | **Use Case Number** | **Step Inserted After** |
| N/A |  |  |

|  |  |  |
| --- | --- | --- |
| **Actors** | | |
| **Actor Name** | **Person/System** | **Brief Description** |
| End User | Person | User of the system |

|  |  |
| --- | --- |
| **Pre-Conditions** | |
| # | Description |
| 1 | User must first have opened the application |

|  |
| --- |
| **Start Stimulus** |
| User selects “Create Account” icon |

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Main Course Steps** | | | |
| **Number** | **Description** | **Adds/Alt Name/Number** | **Bus Rule#** |
| 1 | User selects “Create Account” icon |  |  |
| 2 | System displays account creation screen |  |  |
| 3 | User enters desired username and password |  |  |
| 4 | User selects desired gender, hair style |  |  |
| 5 | User selects “Accept” icon |  |  |
| 6 | System saves user account to database |  |  |
| 7 | System displays home screen |  |  |

|  |  |  |
| --- | --- | --- |
| **Exception Conditions** | | |
| **Exception Situations** | **Action(s) on Exception** | **Adds\Alt UC #** |
| Desired username already in use | System displays notification that username is in use and requests a different one |  |

|  |  |
| --- | --- |
| Post-Conditions | |
| **#** | **Description** |
| 1 | User account created and saved to database |
| 2 | System displays home screen |

|  |  |  |
| --- | --- | --- |
| **Candidate Objects** | | |
| **Class/Object Name** | **Descriptions** | **Possible**  **attributes** |
| Account | Contains account information | Username, password, points |
| Avatar | Contains methods pertaining to the user avatar | Gender, Hair style |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Assumptions** | | | | | |
| **#** | **Assumption** | **Date**  **Raised** | **Raised**  **By** | **Date**  **Verified** | **Verified By** |
| 1 | Languages supported are English | 10/29/14 | Schultz |  |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Issues** | | | | | |
| **#** | **Issue** | **Date**  **Raised** | **Raised**  **By** | **Date**  **Verified** | **Verified By** |
| 1 | Nothing has been done yet. Lazy developers. | 10/29/2014 | Schultz |  |  |

|  |  |  |
| --- | --- | --- |
| **Other Comments** | | |
| **Author** | **Comment** | **Date** |
| Schultz | Figure out how to save accounts | 10/29 |

|  |
| --- |
| Frequency of Execution |
| **Frequency:**  Minimum: 25 Maximum: 250 Average: 150 (OR)Fixed:  **Per:** Hour:Day:  Week:  Month:  Other: |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Timing Information** | | | | | | | |
| **#** | **At/**  **Between** | **Step(s)** | **Timing**  **Unit** | **Minimum** | **Average** | **Maximum** | **Comments** |
| 1 | Between | 8,11 | Seconds |  |  | 3 | User shouldn’t have to wait an extended period of time to create account and be logged in |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Volume Information** | | | | | | |
| **#** | **Step #** | **Unit of**  **Measure** | **Minimum** | **Average** | **Maximum** | **Comments** |
| 1 | 5 | bytes | 2K | 4K | 6K | Confirm username isn’t already in use |
|  | 9 | bytes | 2K | 4K | 6K | Account information |

## Change Avatar

### Scenario

User selects “Change Avatar” button

System displays Avatar Change screen

User selects new appearance for avatar and selects “Accept” button

System saves new information and returns to home screen

System displays new avatar appearance on home screen

### Sequence Diagram



### Specification

|  |  |
| --- | --- |
| General Information | |
| Use Case Name\Number : AVATAR 002  Subject Area : Avatar Alteration  Description : User wishes to alter their avatar | Responsible Analyst : Dylan |

|  |  |
| --- | --- |
| Requirements/Feature Trace | |
| **REQ#** | Requirements Name and / or Short Description |
| 7 | The system shall have an avatar on a per-use basis. |
| 10 | The system shall have a database. |

|  |  |  |
| --- | --- | --- |
| Revision History | | |
| Author | **Date** | **Comments** |
| Dylan Schultz | 10/29/14 | Initial draft |

|  |  |  |
| --- | --- | --- |
| **Insertion Points in other Use Cases** | | |
| Use Case Name | **Use Case Number** | **Step Inserted After** |
| N/A |  |  |

|  |  |  |
| --- | --- | --- |
| **Actors** | | |
| **Actor Name** | **Person/System** | **Brief Description** |
| End User | Person | User of the application |

|  |  |
| --- | --- |
| **Pre-Conditions** | |
| # | Description |
| 1 | User must first have created an account |
| 2 | User must first be logged in |
| 3 | User must be on home screen |

|  |
| --- |
| **Start Stimulus** |
| User selects “Change Avatar” icon |

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Main Course Steps** | | | |
| **Number** | **Description** | **Adds/Alt Name/Number** | **Bus Rule#** |
| 1 | User selects “Change Avatar” icon |  |  |
| 2 | System displays avatar alteration screen |  |  |
| 3 | User selects new gender/hair style |  |  |
| 4 | User selects “Accept” icon |  |  |
| 5 | System saves new avatar and pushes changes to database |  |  |
| 6 | System displays home screen |  |  |

|  |  |  |
| --- | --- | --- |
| **Exception Conditions** | | |
| **Exception Situations** | **Action(s) on Exception** | **Adds\Alt UC #** |
| User accidentally selected change avatar screen | Change avatar screen has “Cancel” icon to revert to previous screen |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Issues** | | | | | |
| **#** | **Issue** | **Date**  **Raised** | **Raised**  **By** | **Date**  **Verified** | **Verified By** |
| 1 | Has not been created | 10/29/14 | Schultz |  |  |

|  |  |
| --- | --- |
| Post-Conditions | |
| **#** | **Description** |
| 1 | User avatar is altered |
| 2 | System displays home screen |

|  |  |  |
| --- | --- | --- |
| **Candidate Objects** | | |
| **Class/Object Name** | **Descriptions** | **Possible**  **attributes** |
| Avatar | Contains methods pertaining to the user avatar | Hair, gender |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Assumptions** | | | | | |
| **#** | **Assumption** | **Date**  **Raised** | **Raised**  **By** | **Date**  **Verified** | **Verified By** |
| 1 | Languages supported are English | 10/29/14 | Schultz |  |  |

|  |  |  |
| --- | --- | --- |
| **Other Comments** | | |
| **Author** | **Comment** | **Date** |
| Schultz | Need to design what genders/hair styles look like. Perhaps each style will be represented by a number? Long hair=1, etc. | 10/29/14 |

|  |
| --- |
| Frequency of Execution |
| **Frequency:**  Minimum: 25 Maximum: 250 Average: 150 (OR)Fixed:  **Per:** Hour:Day:  Week:  Month:  Other: |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Timing Information** | | | | | | | |
| **#** | **At/**  **Between** | **Step(s)** | **Timing**  **Unit** | **Minimum** | **Average** | **Maximum** | **Comments** |
| 1 | At | 6 | Seconds |  |  | 3 | Should not take long to display home screen |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Volume Information** | | | | | | |
| **#** | **Step #** | **Unit of**  **Measure** | **Minimum** | **Average** | **Maximum** | **Comments** |
| 1 | 5 | bytes | 2K | 4K | 6K | Avatar information |

## Open Application

### Scenario

User selects “Avatar Fitness” icon from Android device

Android device runs “Avatar Fitness” by creating Login Page

### Sequence Diagram



### Specification

|  |  |
| --- | --- |
| General Information | |
| Use Case Name\Number : APP 001  Subject Area : Application handling  Description : Opening the application | Responsible Analyst : Dylan |

|  |  |
| --- | --- |
| Requirements/Feature Trace | |
| **REQ#** | Requirements Name and / or Short Description |
| N/A | User must be able to use the application |

|  |  |  |
| --- | --- | --- |
| Revision History | | |
| Author | **Date** | **Comments** |
| Dylan Schultz | 10/29/2014 | Initial draft |

|  |  |  |
| --- | --- | --- |
| **Insertion Points in other Use Cases** | | |
| Use Case Name | **Use Case Number** | **Step Inserted After** |
| N/A |  |  |

|  |  |  |
| --- | --- | --- |
| **Actors** | | |
| **Actor Name** | **Person/System** | **Brief Description** |
| End User | Person | User of the application |

|  |  |
| --- | --- |
| **Pre-Conditions** | |
| # | Description |
| 1 | App must not be started |

|  |
| --- |
| **Start Stimulus** |
| User selects “Avatar Fitness” icon |

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Main Course Steps** | | | |
| **Number** | **Description** | **Adds/Alt Name/Number** | **Bus Rule#** |
| 1 | User selects “Avatar Fitness” icon |  |  |
| 2 | System displays login screen |  |  |

|  |  |
| --- | --- |
| Post-Conditions | |
| **#** | **Description** |
| 1 | Application is opened |
| 2 | Login screen is displayed |

|  |  |  |
| --- | --- | --- |
| **Exception Conditions** | | |
| **Exception Situations** | **Action(s) on Exception** | **Adds\Alt UC #** |
| N/A |  |  |

|  |  |  |
| --- | --- | --- |
| **Candidate Objects** | | |
| **Class/Object Name** | **Descriptions** | **Possible**  **attributes** |
| ApplicationManager | Manager of application objects |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Assumptions** | | | | | |
| **#** | **Assumption** | **Date**  **Raised** | **Raised**  **By** | **Date**  **Verified** | **Verified By** |
| 1 | Languages supported are English | 10/29/14 | Schultz |  |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Issues** | | | | | |
| **#** | **Issue** | **Date**  **Raised** | **Raised**  **By** | **Date**  **Verified** | **Verified By** |
| 1 | Development has not begun | 10/29/14 | Schultz |  |  |

|  |  |  |
| --- | --- | --- |
| **Other Comments** | | |
| **Author** | **Comment** | **Date** |
| Schultz | Need to decide what the icon will look like | 10/29 |

|  |
| --- |
| Frequency of Execution |
| **Frequency:**  Minimum: 25 Maximum: 250 Average: 150 (OR)Fixed:  **Per:** Hour:Day:  Week:  Month:  Other: |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Timing Information** | | | | | | | |
| **#** | **At/**  **Between** | **Step(s)** | **Timing**  **Unit** | **Minimum** | **Average** | **Maximum** | **Comments** |
| 1 | 2 | At | Seconds |  |  | 1 | Shouldn’t take long to boot up |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Volume Information** | | | | | | |
| **#** | **Step #** | **Unit of**  **Measure** | **Minimum** | **Average** | **Maximum** | **Comments** |
|  | N/A |  |  |  |  |  |

## Close Application

### Scenario

User press “Home” button on Android device

Android device minimizes “Avatar Fitness” application

### Sequence Diagram



### Specification

|  |  |
| --- | --- |
| **General Information** | |
| Use Case Name\Number : APP 002  Subject Area : Application handling  Description : Closing the application | Responsible Analyst : Dylan |

|  |  |
| --- | --- |
| **Requirements/Feature Trace** | |
| **REQ#** | Requirements Name and / or Short Description |
| N/A | User must be able to exit the application |

|  |  |  |
| --- | --- | --- |
| Revision History | | |
| Author | **Date** | **Comments** |
| Dylan Schultz | 10/29/2014 | Initial draft |

|  |  |  |
| --- | --- | --- |
| **Insertion Points in other Use Cases** | | |
| Use Case Name | **Use Case Number** | **Step Inserted After** |
| N/A |  |  |

|  |  |  |
| --- | --- | --- |
| **Actors** | | |
| **Actor Name** | **Person/System** | **Brief Description** |
| End User | Person | User of the application |

|  |  |
| --- | --- |
| **Pre-Conditions** | |
| # | Description |
| 1 | App must have been started |

|  |
| --- |
| **Start Stimulus** |
| User presses “Home” button on their device |

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Main Course Steps** | | | |
| **Number** | **Description** | **Adds/Alt Name/Number** | **Bus Rule#** |
| 1 | User presses “Home” button on their device |  |  |
| 2 | System stops and minimizes application |  |  |

|  |  |  |
| --- | --- | --- |
| **Exception Conditions** | | |
| **Exception Situations** | **Action(s) on Exception** | **Adds\Alt UC #** |
| N/A |  |  |

|  |  |
| --- | --- |
| Post-Conditions | |
| **#** | **Description** |
| 1 | Application is closed |

|  |  |  |
| --- | --- | --- |
| **Candidate Objects** | | |
| **Class/Object Name** | **Descriptions** | **Possible**  **attributes** |
| ApplicationManager | Manager of application objects |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Assumptions** | | | | | |
| **#** | **Assumption** | **Date**  **Raised** | **Raised**  **By** | **Date**  **Verified** | **Verified By** |
| 1 | Languages supported are English | 10/29/14 | Schultz |  |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Issues** | | | | | |
| **#** | **Issue** | **Date**  **Raised** | **Raised**  **By** | **Date**  **Verified** | **Verified By** |
| 1 | Development has not begun | 10/29/14 | Schultz |  |  |

|  |  |  |
| --- | --- | --- |
| **Other Comments** | | |
| **Author** | **Comment** | **Date** |
| Schultz | Need to decide what the icon will look like | 10/29 |

|  |
| --- |
| Frequency of Execution |
| **Frequency:**  Minimum: 25 Maximum: 250 Average: 150 (OR)Fixed:  **Per:** Hour:Day:  Week:  Month:  Other: |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Timing Information** | | | | | | | |
| **#** | **At/**  **Between** | **Step(s)** | **Timing**  **Unit** | **Minimum** | **Average** | **Maximum** | **Comments** |
| 1 |  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Volume Information** | | | | | | |
| **#** | **Step #** | **Unit of**  **Measure** | **Minimum** | **Average** | **Maximum** | **Comments** |
|  | N/A |  |  |  |  |  |

## Log Statistics

### Scenario

User selects “Log Stats” button from home screen

System displays statistics page

Systems loads statistics and posts to page

User adds entries to desired statistic to log

User selects “Accept” button

System saves statistics and pushes to database

System displays home screen

### Sequence Diagram



### Specification

|  |  |
| --- | --- |
| General Information | |
| Use Case Name\Number : LOG 002  Subject Area : Logging  Description : Log statistic | Responsible Analyst : Dylan |

|  |  |
| --- | --- |
| Requirements/Feature Trace | |
| **REQ#** | Requirements Name and / or Short Description |
| 2 | The system shall log performance statistics on a per-user basis. |
| 5 | The system shall allow user performance to scale with level. |
| 8 | The system shall allow users to log their weight. |
| 10 | The system shall have a database. |

|  |  |  |
| --- | --- | --- |
| Revision History | | |
| Author | **Date** | **Comments** |
| Schultz | 10/29/2014 | Initial Draft |

|  |  |  |
| --- | --- | --- |
| **Insertion Points in other Use Cases** | | |
| Use Case Name | **Use Case Number** | **Step Inserted After** |
| N/A |  |  |
|  |  |  |

|  |  |  |
| --- | --- | --- |
| **Actors** | | |
| **Actor Name** | **Person/System** | **Brief Description** |
| End User | Person | User of application |

|  |  |
| --- | --- |
| **Pre-Conditions** | |
| # | Description |
| 1 | User must be logged in |
| 2 | User must be on home screen |

|  |
| --- |
| **Start Stimulus** |
| User selects “Log Stats” icon |

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Main Course Steps** | | | |
| **Number** | **Description** | **Adds/Alt Name/Number** | **Bus Rule#** |
| 1 | User selects “Log Stats” icon |  |  |
| 2 | System displays log statistics screen |  |  |
| 3 | User selects statistic to log |  |  |
| 4 | User enters data (weight in lbs, body fat %) |  |  |
| 5 | Use selects “Accept” icon |  |  |
| 6 | System saves data and pushes to database |  |  |
| 7 | System displays home screen |  |  |

|  |  |
| --- | --- |
| Post-Conditions | |
| **#** | **Description** |
| 1 | Database updated with new statistic data |
| 2 | System displays home screen |

|  |  |  |
| --- | --- | --- |
| **Exception Conditions** | | |
| **Exception Situations** | **Action(s) on Exception** | **Adds\Alt UC #** |
| N/A |  |  |

|  |  |  |
| --- | --- | --- |
| **Candidate Objects** | | |
| **Class/Object Name** | **Descriptions** | **Possible**  **attributes** |
| UserStatistics | Keeps track of user statistics | Date logged, value, description |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Assumptions** | | | | | |
| **#** | **Assumption** | **Date**  **Raised** | **Raised**  **By** | **Date**  **Verified** | **Verified By** |
| 1 | Languages supported are English | 10/29/14 | Schultz |  |  |
|  |  |  |  |  |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Issues** | | | | | |
| **#** | **Issue** | **Date**  **Raised** | **Raised**  **By** | **Date**  **Verified** | **Verified By** |
|  | N/A |  |  |  |  |

|  |  |  |
| --- | --- | --- |
| **Other Comments** | | |
| **Author** | **Comment** | **Date** |
| N/A |  |  |

|  |
| --- |
| Frequency of Execution |
| **Frequency:**  Minimum: 25 Maximum: 250 Average: 150 (OR)Fixed:  **Per:** Hour:Day:  Week:  Month:  Other: |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Timing Information** | | | | | | | |
| **#** | **At/**  **Between** | **Step(s)** | **Timing**  **Unit** | **Minimum** | **Average** | **Maximum** | **Comments** |
| 1 | N/A |  |  |  |  |  |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Volume Information** | | | | | | |
| **#** | **Step #** | **Unit of**  **Measure** | **Minimum** | **Average** | **Maximum** | **Comments** |
| 1 | 7 | bytes | 2K | 4K | 6K | Statistic data |

## Add Statistic

### Scenario

User selects “+” button from statistics page

User enters statistic description

User selects “Accept” button

System saves new statistic

System pushes new statistic to database

System returns to statistics page

### Sequence Diagram



### Specification

|  |  |
| --- | --- |
| General Information | |
| Use Case Name\Number : STATS 001  Subject Area : Logging  Description : Add statistic to log | Responsible Analyst : Dylan |

|  |  |
| --- | --- |
| Requirements/Feature Trace | |
| **REQ#** | Requirements Name and / or Short Description |
| 2 | The system shall log performance statistics on a per-user basis. |
| 5 | The system shall allow user performance to scale with level. |
| 8 | The system shall allow users to log their weight. |
| 10 | The system shall have a database. |

|  |  |  |
| --- | --- | --- |
| Revision History | | |
| Author | **Date** | **Comments** |
| Dylan Schultz | 10/29/14 | Initial Draft |

|  |  |  |
| --- | --- | --- |
| **Insertion Points in other Use Cases** | | |
| Use Case Name | **Use Case Number** | **Step Inserted After** |
| N/A |  |  |

|  |  |  |
| --- | --- | --- |
| **Actors** | | |
| **Actor Name** | **Person/System** | **Brief Description** |
| End User | Person | User of the application |

|  |  |
| --- | --- |
| **Pre-Conditions** | |
| # | Description |
| 1 | User must be logged in |

|  |
| --- |
| **Start Stimulus** |
| User selects “Add Statistic to Log” icon |

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Main Course Steps** | | | |
| **Number** | **Description** | **Adds/Alt Name/Number** | **Bus Rule#** |
| 1 | User selects “+” icon to add new statistic |  |  |
| 2 | System displays statistic description box |  |  |
| 3 | User enters name of stat (ex. Weight) |  |  |
| 4 | User selects “Accept” icon |  |  |
| 5 | System adds new statistic to user’s account |  |  |
| 6 | System displays add statistic screen |  |  |

|  |  |  |
| --- | --- | --- |
| **Exception Conditions** | | |
| **Exception Situations** | **Action(s) on Exception** | **Adds\Alt UC #** |
| Statistic name has already been added | System informs user of stat already in use and cancels transaction |  |

|  |  |
| --- | --- |
| Post-Conditions | |
| **#** | **Description** |
| 1 | Statistic is added |
| 2 | System displays add statistic screen |

|  |  |  |
| --- | --- | --- |
| **Candidate Objects** | | |
| **Class/Object Name** | **Descriptions** | **Possible**  **attributes** |
| UserStatistics | Keeps track of user statistics | Date logged, value, description |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Assumptions** | | | | | |
| **#** | **Assumption** | **Date**  **Raised** | **Raised**  **By** | **Date**  **Verified** | **Verified By** |
| 1 | Languages supported are English | 10/29/14 | Schultz |  |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Issues** | | | | | |
| **#** | **Issue** | **Date**  **Raised** | **Raised**  **By** | **Date**  **Verified** | **Verified By** |
| 1 | Not created | 10/29/14 | Schultz |  |  |

|  |  |  |
| --- | --- | --- |
| **Other Comments** | | |
| **Author** | **Comment** | **Date** |
| Schultz | How will these be sorted? Date? | 10/29 |

|  |
| --- |
| Frequency of Execution |
| **Frequency:**  Minimum: 25 Maximum: 250 Average: 150 (OR)Fixed:  **Per:** Hour:Day:  Week:  Month:  Other: |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Timing Information** | | | | | | | |
| **#** | **At/**  **Between** | **Step(s)** | **Timing**  **Unit** | **Minimum** | **Average** | **Maximum** | **Comments** |
| 1 | Between | 6,8 | Seconds |  |  | 3 | Have to go quickly for user experience. |

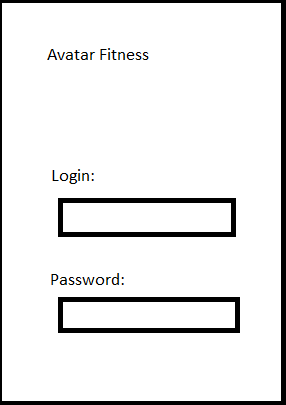
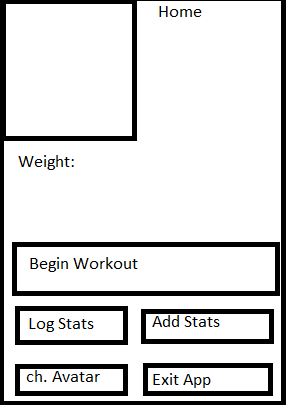
|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Volume Information** | | | | | | |
| **#** | **Step #** | **Unit of**  **Measure** | **Minimum** | **Average** | **Maximum** | **Comments** |
| 1 | N/A |  |  |  |  |  |

# CRUD Matrix

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Use Case ID | Use Case Name | Avatar | DatabaseManager | HomePage | iStatic | iWorkout | LoginPage | Statistic | StatisticsPage | TimerPage | User | Workout |
| 1 | Log In |  | R | R |  |  | U |  |  |  | R |  |
| 2 | Begin Workout |  |  |  |  |  |  |  |  | CR |  |  |
| 3 | Complete Workout |  | U |  |  | U |  |  |  | UD | U | U |
| 4 | Create Account | CR |  |  |  |  |  |  |  |  | RU |  |
| 5 | Change Avatar | UD | U |  |  |  |  |  |  |  | RU |  |
| 6 | Open Application | C | CR | CR | CR | CR | CR | CR | CR |  | CR | CR |
| 7 | Close Application | D | D | D | UD | D | D | D | UD |  | D | D |
| 8 | Log Statistics |  | U |  | U |  |  | U | RU |  | RU |  |
| 9 | Add Statistic |  | U |  | U |  |  | U | UD |  | RU |  |

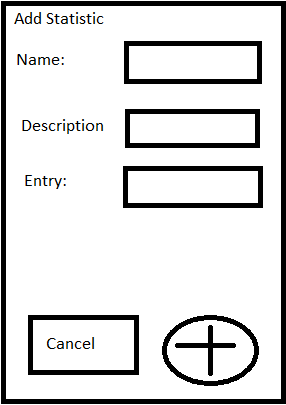
# Low Fidelity UI

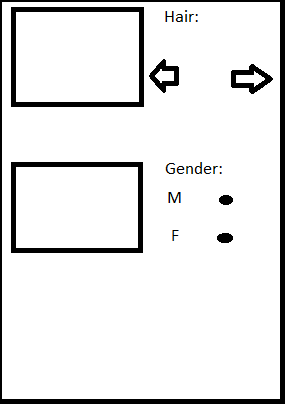
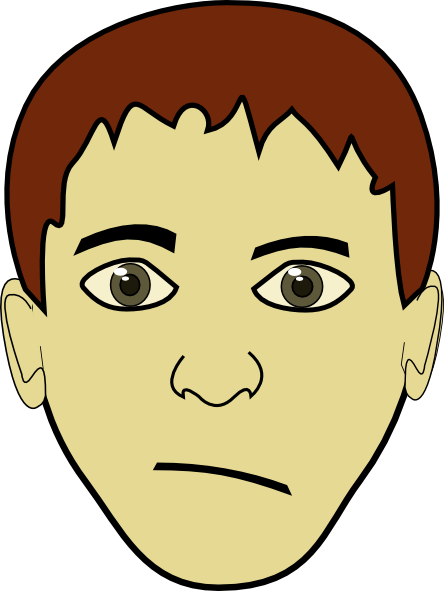
Login Screen: Home Screen:





Add Statistic Screen: Change Avatar Screen:





# Glossary

This section intentionally left blank.

# Appendix A

## Business Rules

This section intentionally left blank.