Fitocity - Health & Fitness Management System

System Requirements Specifications (SRS) Document

Submitted by

FA20 - BSE - 085 - Muhammad Suhaib Iqbal

FA20 - BSE - 086 - Shaheer Ahmad

FA20 - BSE - 149 - Saim Abbas

BSE - 5 -B

Software Quality Engineering

Software Requirements Specification

Fitocity - HFMS

Version
1.0 Approved

Prepared by
M Suhaib Iqbal
Shaheer Ahmad
Saim Abbad

Organization:
Comsats University Islamabad – Wah Campus

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Revision History			
Date	Revision	Description	Author
12/19/2022	1.0	Final Revision	Suhaib, Shaheer, Saim

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1. Introduction

1.1. Purpose

The purpose of this document is to analyze and define the detailed vision and scope of Fitocity. The document proposes the baseline for the software system. The document defines the scope of the software, use cases, functional and non functional requirements and all other aspects of software system briefly.

1.2. Scope

. The product will beneficial for those who use computer on daily bases and doesn't have enough time to take a look on their physical health. They will be notified about their health and when they need to take their meal or the glass of water.

1.3. Definitions, Acronyms, and Abbreviations

None Specified.

1.4. References

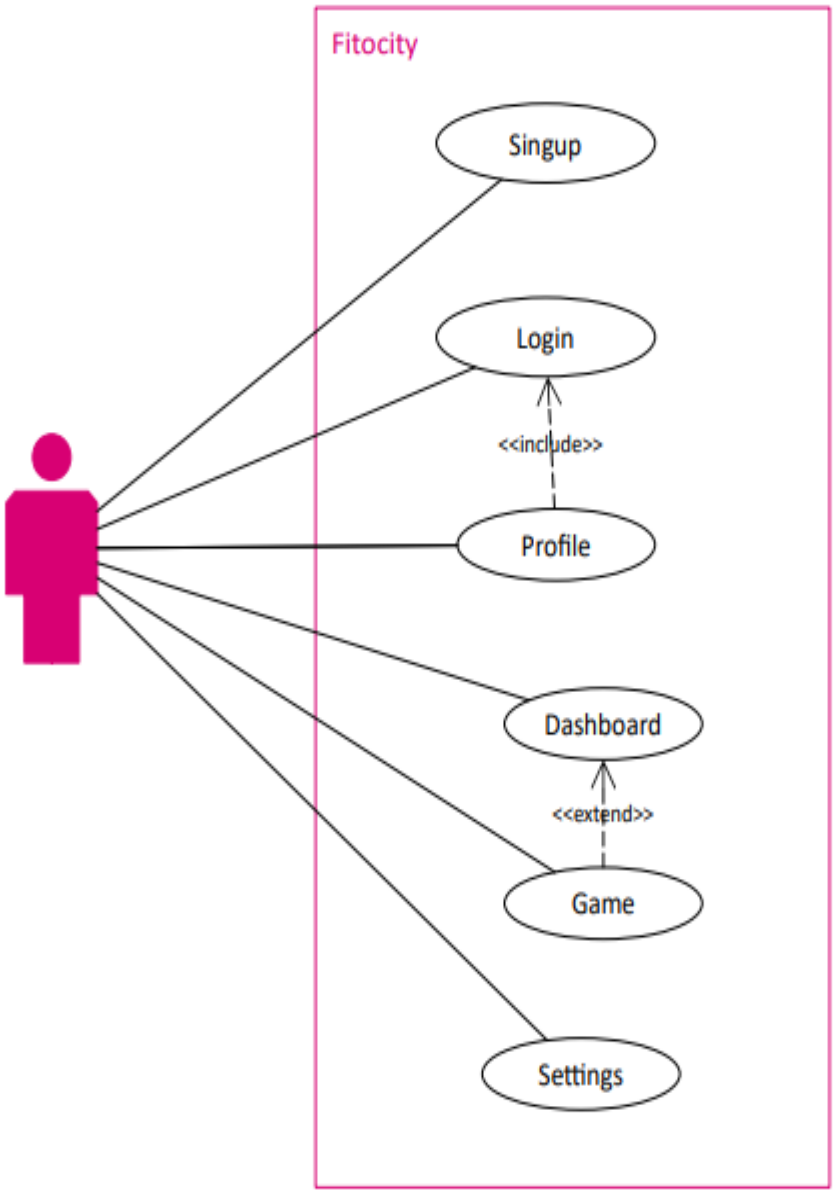
[1] Fitocity Prototype done in Figma
https://www.figma.com/proto/M0E9ziRpzGaei2wuN106vs/

1.5. Assumptions and Dependencies

Some of the modules of the system might be dependent on other hardware or software components. The complete software is dependent on the JAVA development environment. There are also some other libraries which the system is dependent on:

- Java Swing
- Java UTIL

2. Use Case Model Survey



Use Cases:

- Registration of use account.
- Login System.
- Profile view.
- Dashboard.
- Game.
- Setting

Use Case ID	01
Use case Name	Login
Description	User will enter the system with username and password
Pre- Condition	Account for the user exists
Post Condition	Enters the system -> dashboardView();
Exception	Wrong username or password

Use Case ID	02
Use case Name	Register
Description	User will register in the system for the first time in a 3 step mechanism
Pre- Condition	Account with provided username doesn't exist
Post Condition	User will enter the system for first time
Exception	Username already exists.

Use Case ID	03
Use case Name	Enter Profile
Description	User enters profile by clicking on menu by dashboard
Pre- Condition	User should be logged in
Post Condition	User enters profile
Exception	System Error

Use Case ID	04
Use case Name	Enter Dashboard
Description	User enters dashboard by log in to ID
Pre- Condition	User should be logged in
Post Condition	User enters Dashboard
Exception	System Error

Use Case ID	05
Use case Name	Enter Settings
Description	User enters settings by clicking on settings from menu
Pre- Condition	User should be logged in
Post Condition	User enters settings
Exception	System Error

Use Case ID	06
Use case Name	Enter Game
Description	User enters game by clicking on game from menu
Pre- Condition	User should be logged in
Post Condition	User enters game
Exception	System Error

3. Actor Survey

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Actor	Description
General User	The one and only end user/General user actor will be able to perform all the tasks in the software system for himself. The software is self sufficient intelligence based software and does not require another actor.

4. Requirements

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4.1. Functional Requirements

. ● User signup and login

Different user must be able to register their separate profile and log in to the system using their username and password.

● Calculating BMI

While signup process the user enters in weight and height after that BMI is calculated. Meals and exercises are recommended to the user considering that BMI.

● Glass of water count

The application has a water count and the user can update it by himself.

● Profile setting

The system has a settings option in which user can change its registered profile settings like username password etc.

4.2. Non-Functional Requirements

- Functional suitability

The features and functions of the software are tested and reviewed and are thus stable. They are equally sustainable in a stressed and loaded environment.

- Reliability

The software system is reliable to be used in the respective market domain by all kinds of people who are concerned about their physical health.

- Security

The software system keeps the confidential information of all the users profile safe.

- Compatibility

The first final version of the software system is easy to deploy and requires just the installation of JAVA and the respective development environment.

5. User Documentation and Help System Requirements

- A user manual must be included with the software in order to help users understand the basics of the system.

- A video guide explaining users who are not familiar with technical knowledge.

6. Design Constraints

Language Used
JAVA

IDE Used
Eclipse, IntelliJ IDEA

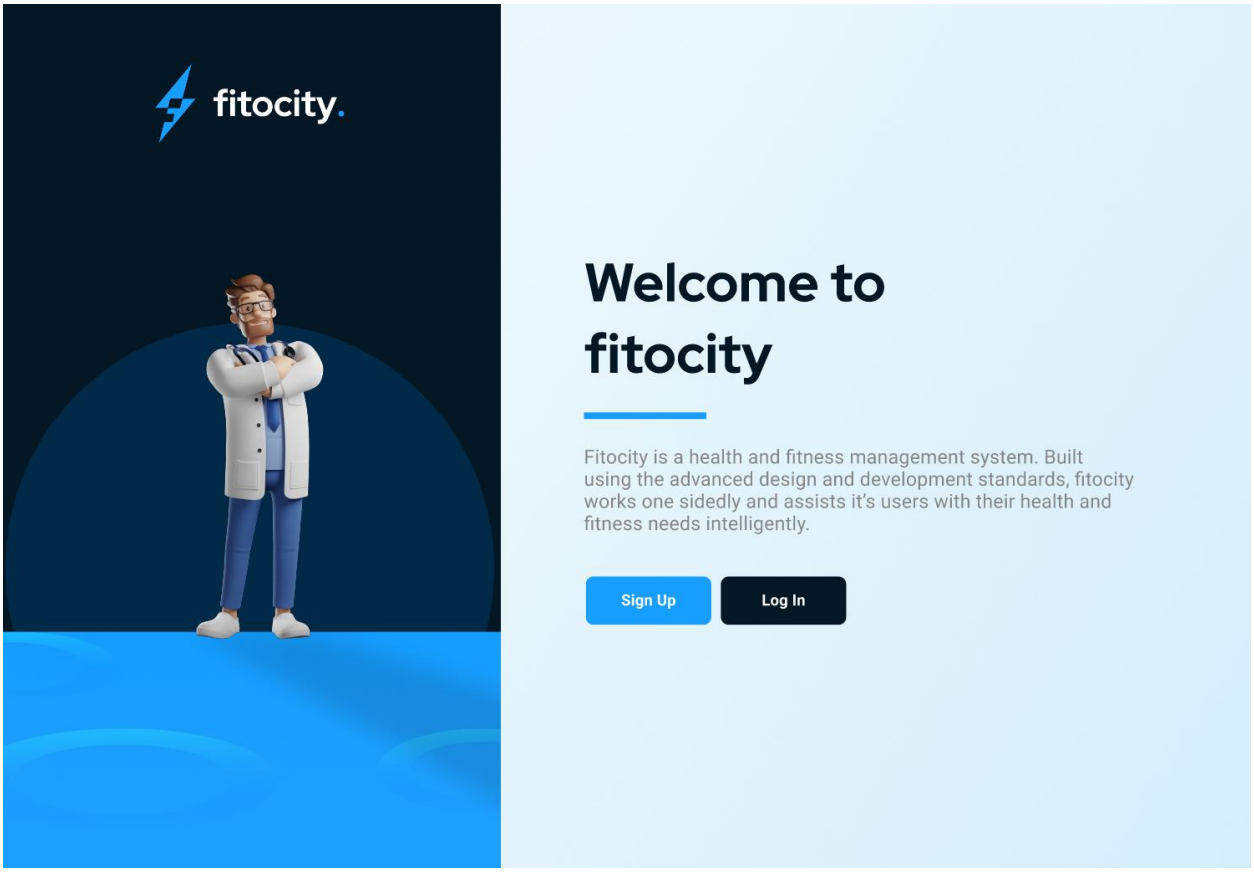
7. Purchased Components

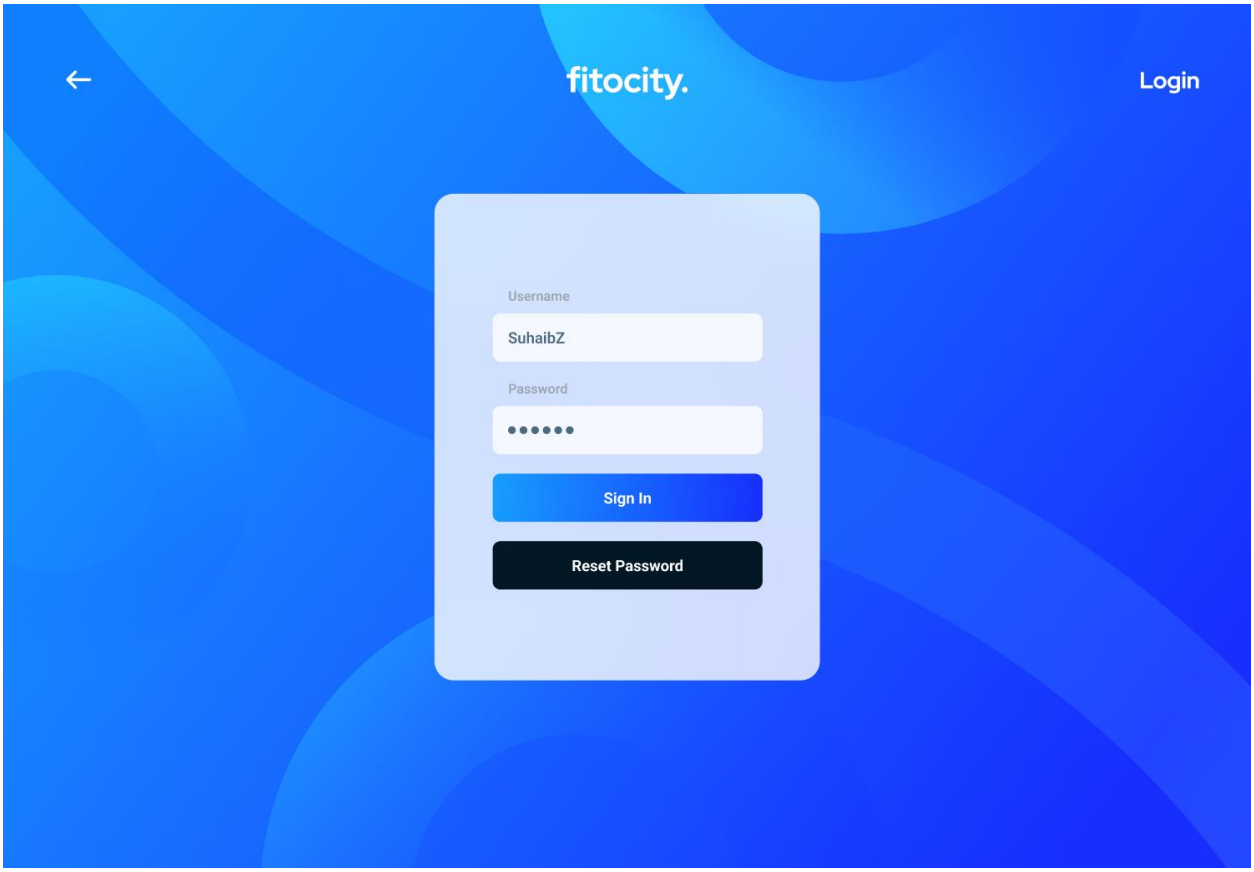
None

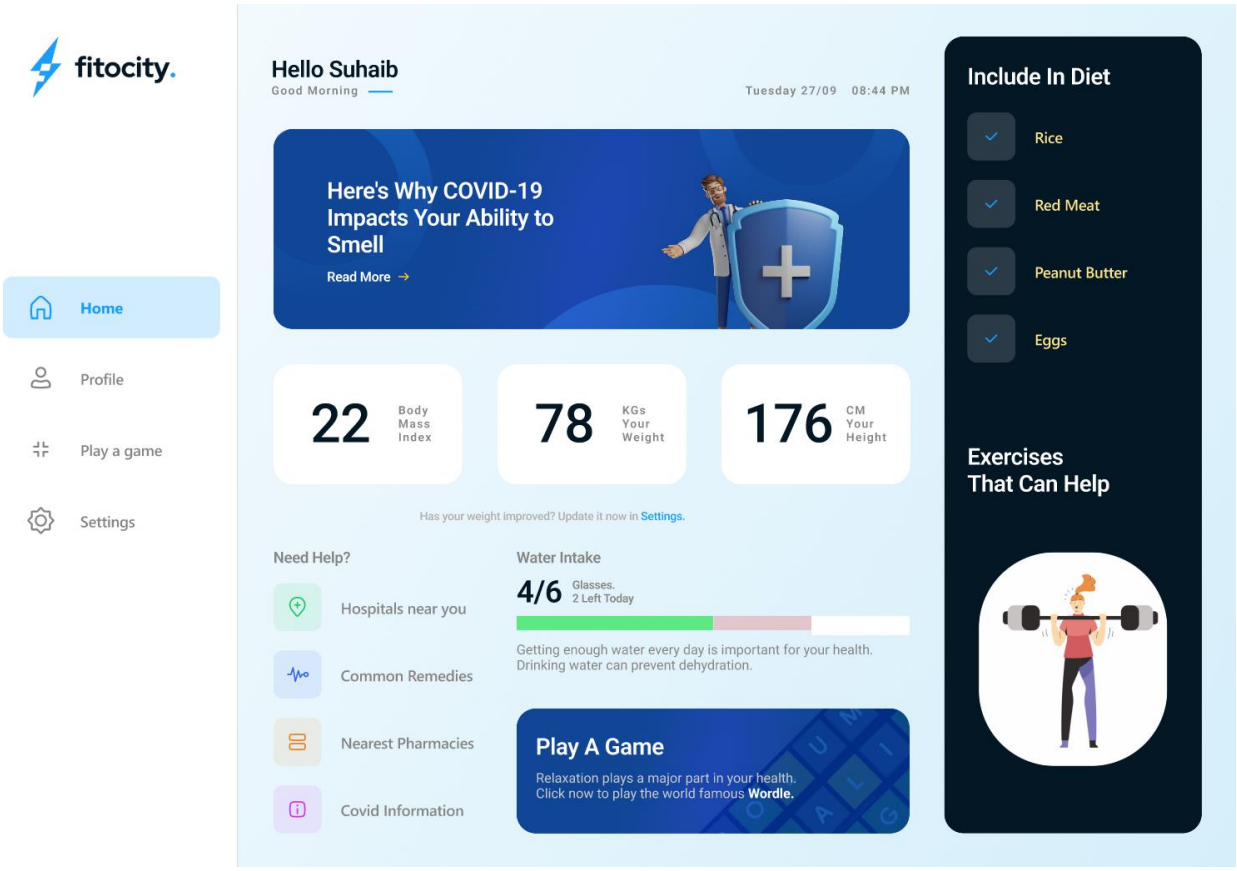
8. Software Interfaces

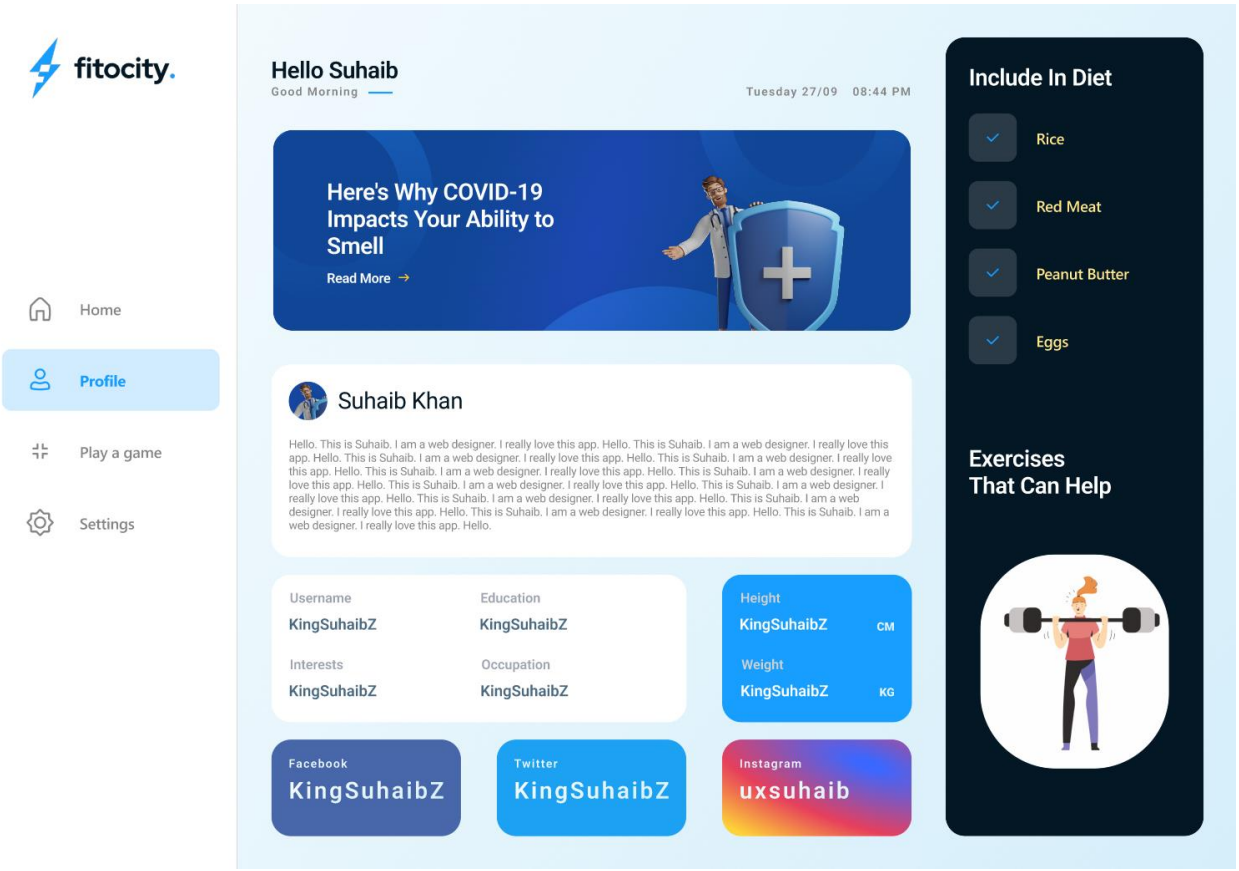
The software has number of interfaces that the user will go through once he is using the application.

- Welcome screen
- Signup
- Profile setup
- Login
- Dashboard




fitocity.
Login
Username
SuhaibZ
Password
Sign In
Reset Password


fitocity.
Home
Profile
Play a game
Settings
Hello Suhaib
Good Morning
Tuesday 27/09 08:44 PM
Here's Why COVID-19 Impacts Your Ability to Smell
Read More
22
Body Mass Index
78
KGs Your Weight
176
CM Your Height
Has your weight improved? Update it now in Settings.
Need Help?
Hospitals near you
Common Remedies
Nearest Pharmacies
Covid Information
Water Intake
4/6
Glasses.
2 Left Today
Getting enough water every day is important for your health.
Drinking water can prevent dehydration.
Play A Game
Relaxation plays a major part in your health.
Click now to play the world famous Wordle.
Include In Diet
Rice
Red Meat
Peanut Butter
Eggs
Exercises That Can Help



9. Licensing and Security Requirements

N/A

10. Legal, Copyright, and Other Notices

N/A

11. Applicable Standards

All the IEEE specified standards for a computer based software system.

12. Index

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13. Glossary

IEEE = Institute of Electrical and Electronics Engineers

14. Appendixes

14.1 Pseudocode

14.1.1 Login Module

1. Input username, password
2. if username exists in database then

Redirect to dashboard

else

return back with error message

14.1.2 Weight Preference Module

1. Input weight, height
2. bmi □ (weight/height)
3. if (bmi<18.5) then

print “Gain Weight”

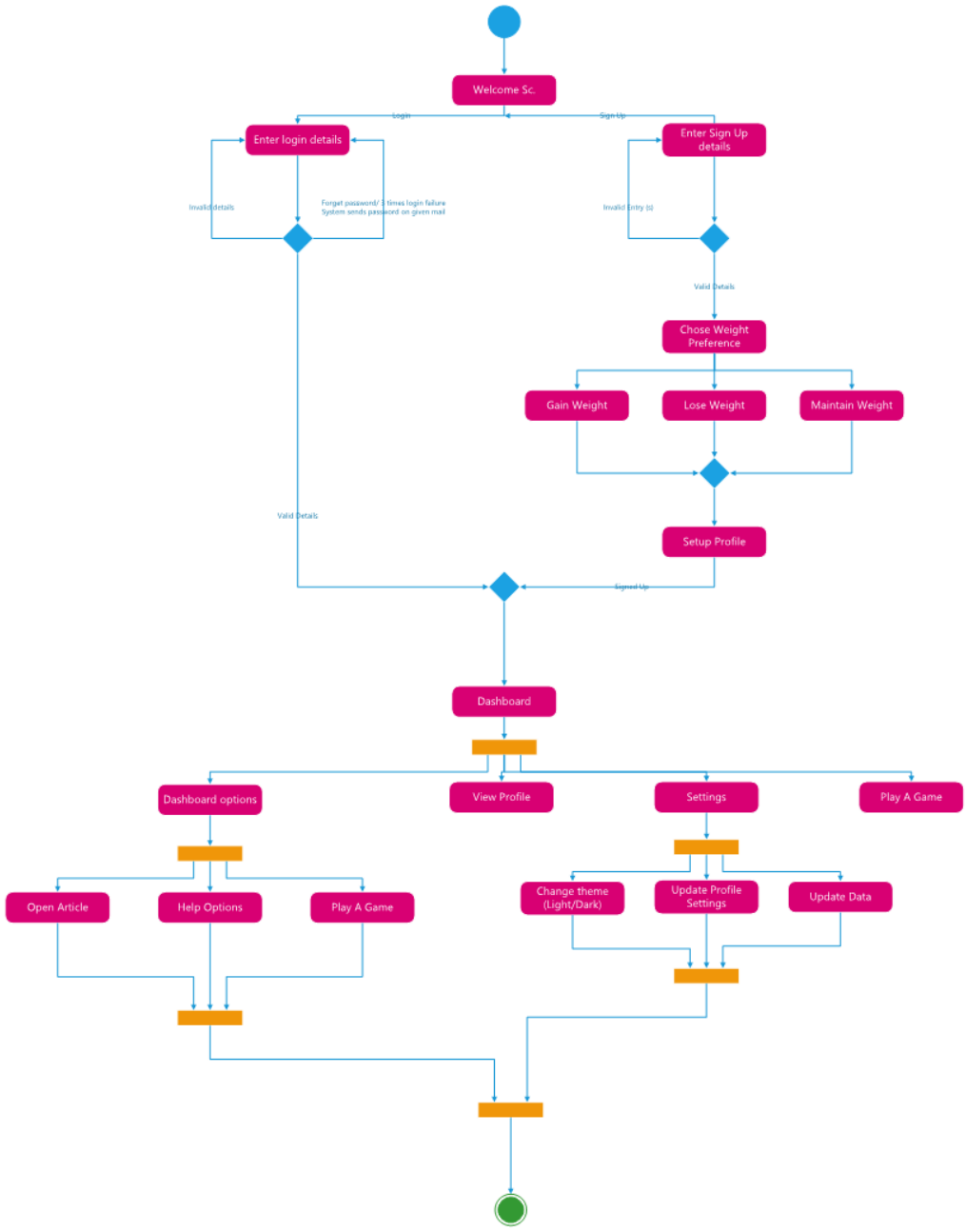
else if (bmi>=18.5 and bmi<25) then

print “Maintain Weight”

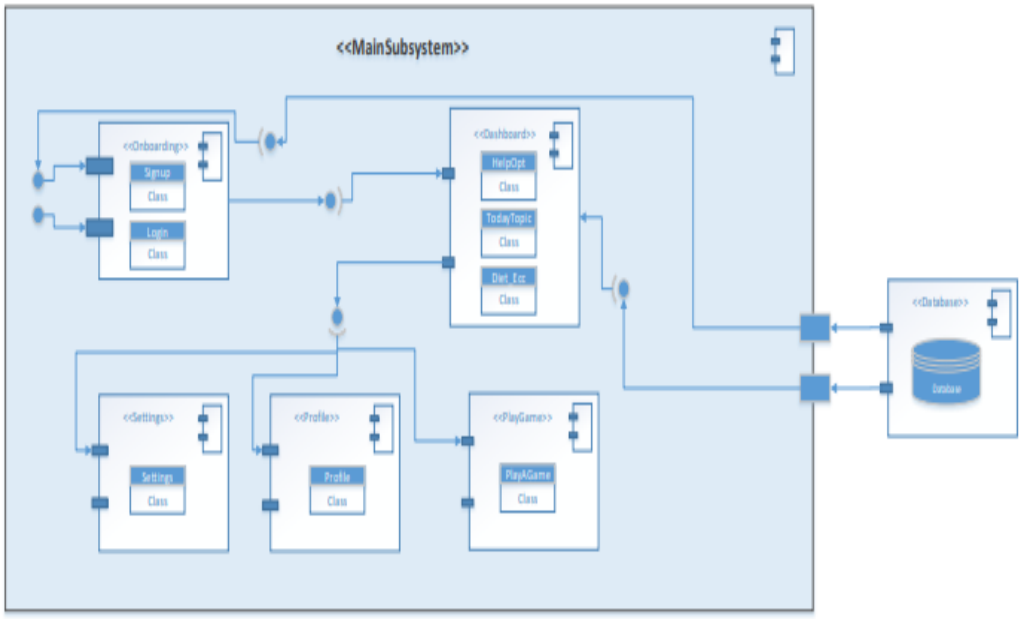
else

print “loose weight”

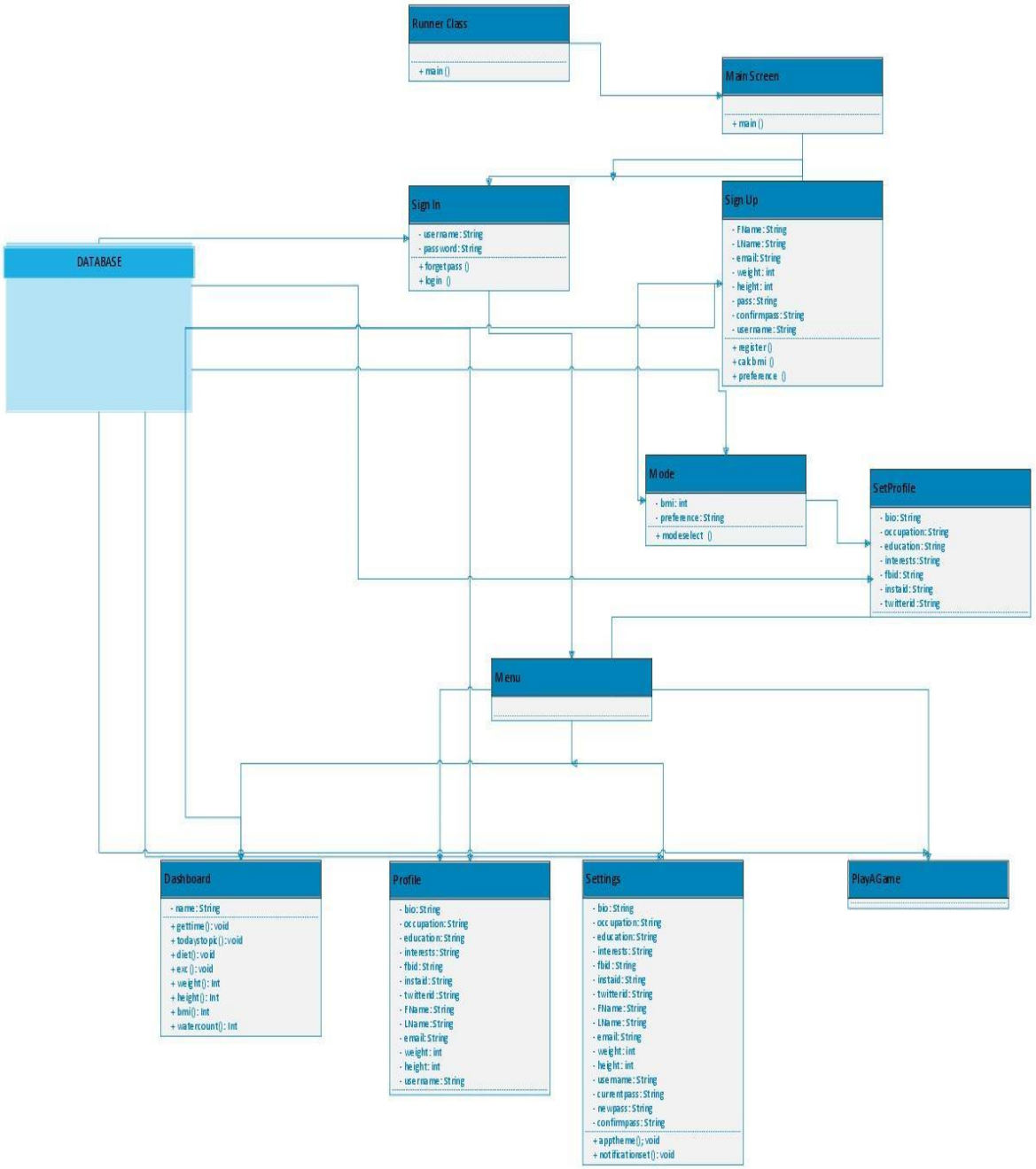
14.2 Flowchart



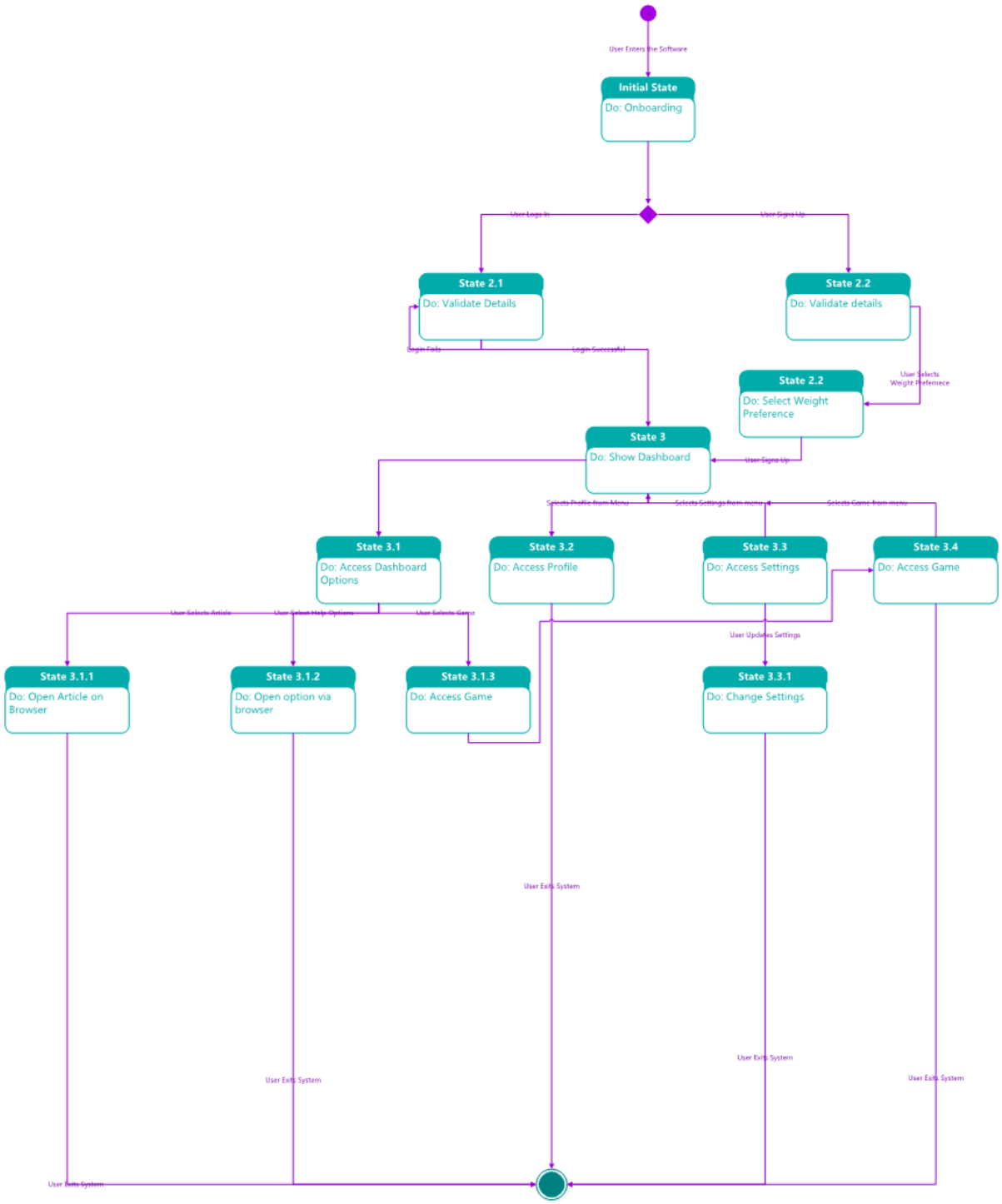
14.3 ER Diagram



14.4 Class Diagram



14.5 State Transition Diagram


User Enters the Software
Initial State
Do: Onboarding
User Logs In
User Signs Up
State 2.1
Do: Validate Details
State 2.2
Do: Validate details
Login Fails
Login Successful
State 2.2
Do: Select Weight Preference
User Selects Weight Preference
State 3
Do: Show Dashboard
User Signs Up
Selects Profile from Menu
Selects Settings from menu
Selects Game from menu
State 3.1
Do: Access Dashboard Options
State 3.2
Do: Access Profile
State 3.3
Do: Access Settings
State 3.4
Do: Access Game
User Selects Article
User Select Help Options
User Selects Game
User Updates Settings
State 3.1.1
Do: Open Article on Browser
State 3.1.2
Do: Open option via browser
State 3.1.3
Do: Access Game
State 3.3.1
Do: Change Settings
User Exits System
User Exits System
User Exits System
User Exits System
User Exits System