SPARK4MIND

Team:: 4

Team Members::

- Barath Naravula Loganathan - 35
- Aishvwarya Natarajan Iyer - 19
- Gayathree Natarajan Iyer - 20
- Megha Nagabhushan - 32

Table of Contents

I.   <u>Introduction</u>

Stress within your comfort zone can help you perform under pressure, motivate you to do your best, even keep you safe when danger looms. But when stress becomes overwhelming, it can damage your mood and relationships, and lead to a host of serious mental and physical health problems. The trouble is that modern life is so full of frustrations, deadlines, and demands that many of us don't even realize how stressed we are. By recognizing the symptoms and causes of stress, you can take the first steps to reducing its harmful effects and improving your quality of life.

This application will help users cope up the stress with spending 10-15 minutes with this stress buster application. This application will provide user the refreshing 10-15 minutes which would help them better concentrate on their job or studies.

This application will take a stress test of the user and based on the inputs provided by the user, it will calculate the level of stress. User can further play games, watch funny videos, yoga exercises, watch motivational videos, listen to some soothing music to get rid of the stress. Based on multiple usage, user will be able to view their own progress graph and give feedback based on it.

II.   Project Goal and Objectives

- **Overall goal**
  Makes the mind and soul of the application user peaceful and stress free.

- **Specific objectives**
  When user is under lot of pressure, frustration, workload, personal or professional issues the objective of this application is to relieve the stress of users within 10-15 minutes. This application will help users to know the stress level and help users cope up the stress with some videos, songs, games, yoga exercises.
  Idea Inspired by TED talk, idea worth Spreading, "All it takes is 10 mindful minutes" by Andy Puddicombe.

- **Specific features**
  - Stress level tester
  - Interactive stress-reliever games
  - Structured and Proven weekly course work for stress-free and more-success life
  - Medical brain wave music according to user focus improvement
  - Motivation video tailored specific to user
  - Yoga or Mediation training videos to different age group
  - Checking progress of user
  - Give feedback

- **Significance**

  Being human being in this busy world is a little difficult one but being a successful human being in this world is more difficult than climbing the Mount Everest. To be successful, we need to be stress-free, worry-less, focus-more and train-more. This is where our App idea comes into play so that a human being can climb the ladder of success and become a good human being.

III.   Project Plan

Schedule for the four different increments

Increment 1:   Launch page

Login page

Registration page

Stress Test page

Increment 2:   Integrating YouTube videos

- o   Motivational videos
- o   Funny videos
- o   Yoga videos
- o   Stress relieving exercise videos

Integrating soothing music

Increment 3:   Integrating simple stress relieving games
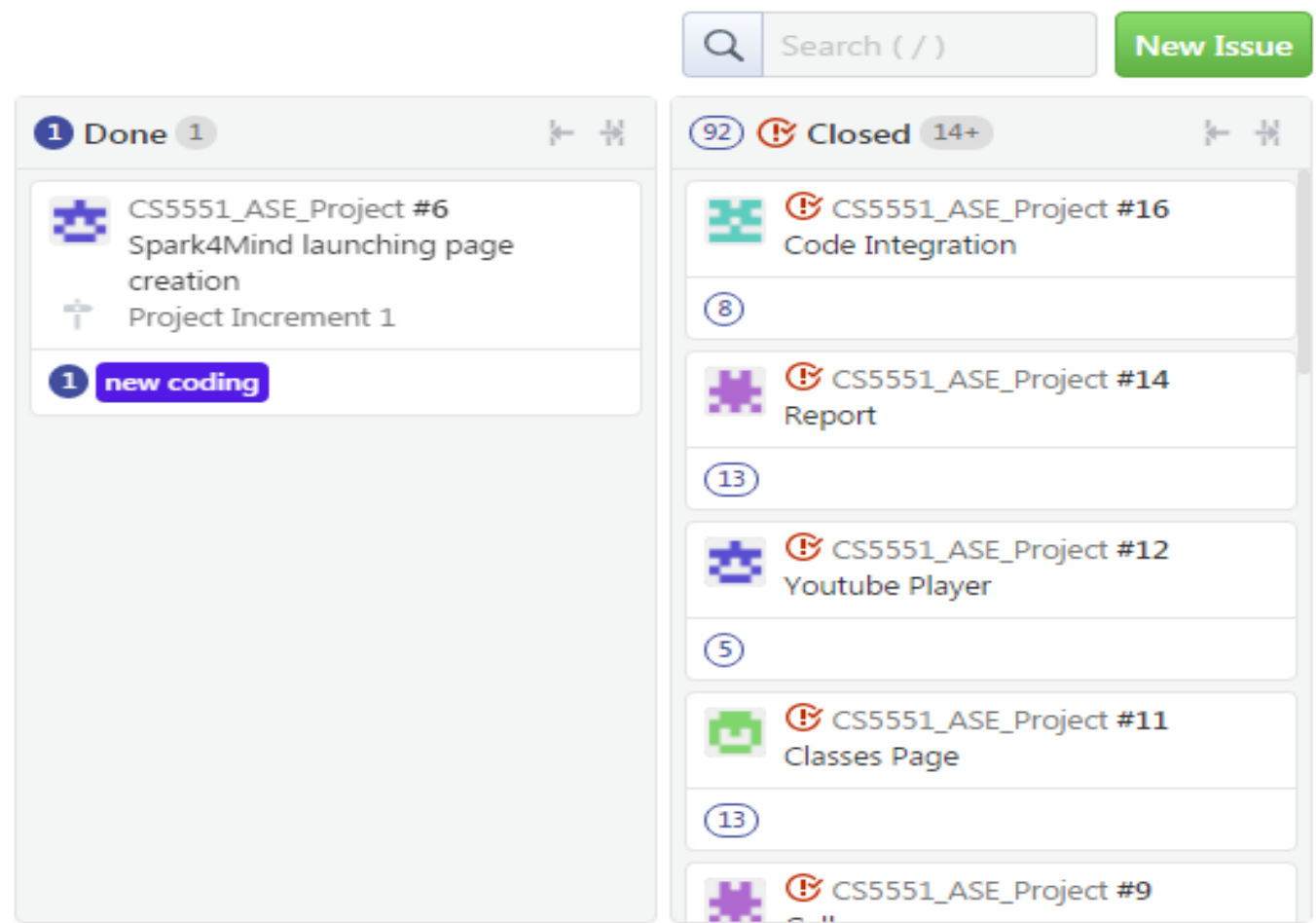
Generating Progress report for user

Feedback form

Increment 4:   Deployment

Testing

Stories (Issues): Scenario & Use case specification

➢ The user first logs in to the application or signs up if not registered.
➢ The user will answer various questions and the stress meter will specify the stress level.
➢ Depending on the user's stress level user can select among many stress relieving options like: Games, Music, Videos.
➢ If the user selects videos, user will have various options like yoga exercises, inspirational talks, music video etc.
➢ Once the user is done with it, there will be a graph that shows the improvement in his/her stress level.
➢ Later on, user can provide feedbacks for the application.
➢ User logs out of the application and is stress free!

Project Timelines, Members, Task Responsibility

Q Search (/)	**New Issue**

❶ Done 1

CS5551_ASE_Project **#6**
Spark4Mind launching page creation
Project Increment 1

❶ new coding

92 ⓘ **Closed** 14+

CS5551_ASE_Project **#16**
Code Integration
⑧

CS5551_ASE_Project **#14**
Report
⑬

CS5551_ASE_Project **#12**
Youtube Player
⑤

CS5551_ASE_Project **#11**
Classes Page
⑬

CS5551_ASE_Project **#9**

Burndown chart

Project Increment 2   ✏ Edit Milestone   ✝ Change Milestone ▾

🏷 Labels ▾   ⬍ Hide Pull Requests   🔥 Burn Pipelines ▾

Start: **Oct 11, 2016** Edit | Due: **Oct 15, 2016** Edit   powered by | ZenHub
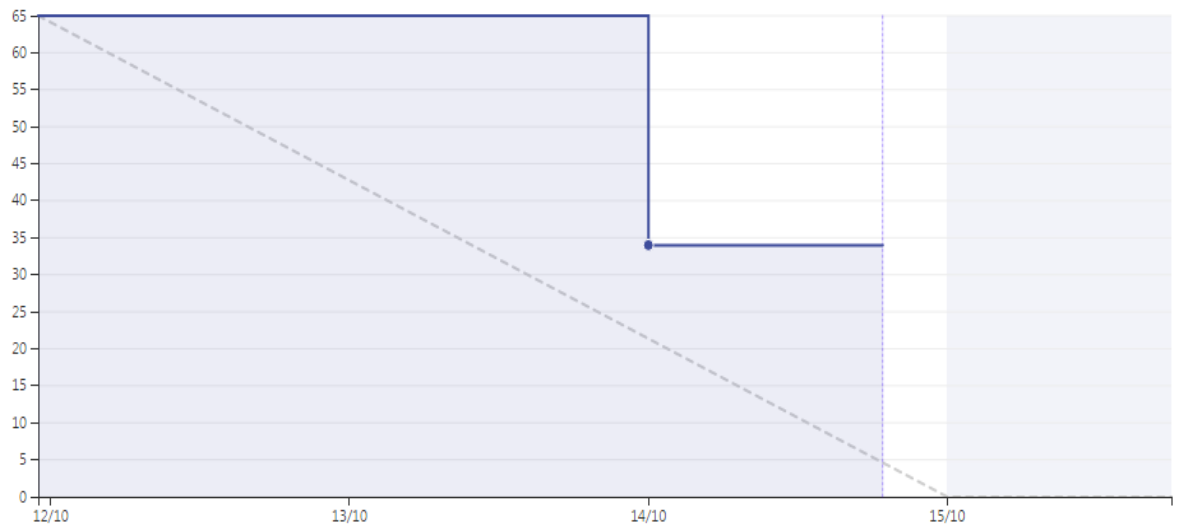
65	31	8	0
Total Story Points	Completed Story Points	Total Issues	Unestimated Issues

IV.   Second Increment Report

Detailed Design of Features

Wireframes

i)   Wireframe for Login page

ii)   Wireframe for Registration page

REGISTRATION

FIRST NAME

LAST NAME

AGE

GENDER: ◯ MALE   ◯ FEMALE

OCCUPATION   ⌄

EMAIL ID

USERNAME

PASSWORD

CONFIRM PASSWORD

SIGNUP

iii)   Wireframe for Stress Test page

STRESS TEST

LOGOUT

We help you relieve your stress !

Please answer the following questions :

1) Do you get angry quite often ?
   ◎ YES   ● NO

2) Do you feel anxious or agitated ?
   ● YES   ◎ NO

3) Are you having sleep problems ?
   ● YES   ◎ NO

4) Are you having weight problems?
   ◎ YES   ● NO

5) Are you unable to concentrate ?
   ● YES   ◎ NO

6) Are you seeing only the negative ?
   ◎ YES   ● NO

7) Do you feel isolated ?
   ● YES   ◎ NO

8) Are you running away from responsibilities?
   ◎ YES   ● NO
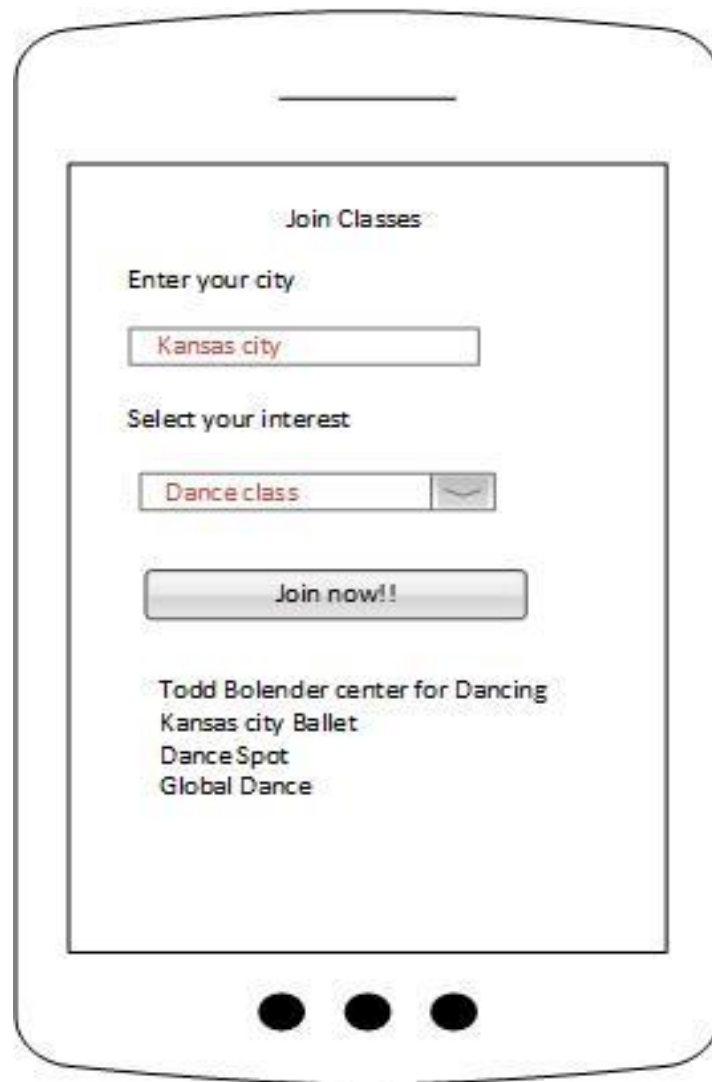
9) Do you overreact to situations ?
   ◎ YES   ● NO

10) Are you close to panic ?
   ◎ YES   ● NO

SUBMIT

iv)   Wireframe for Class page

Join Classes

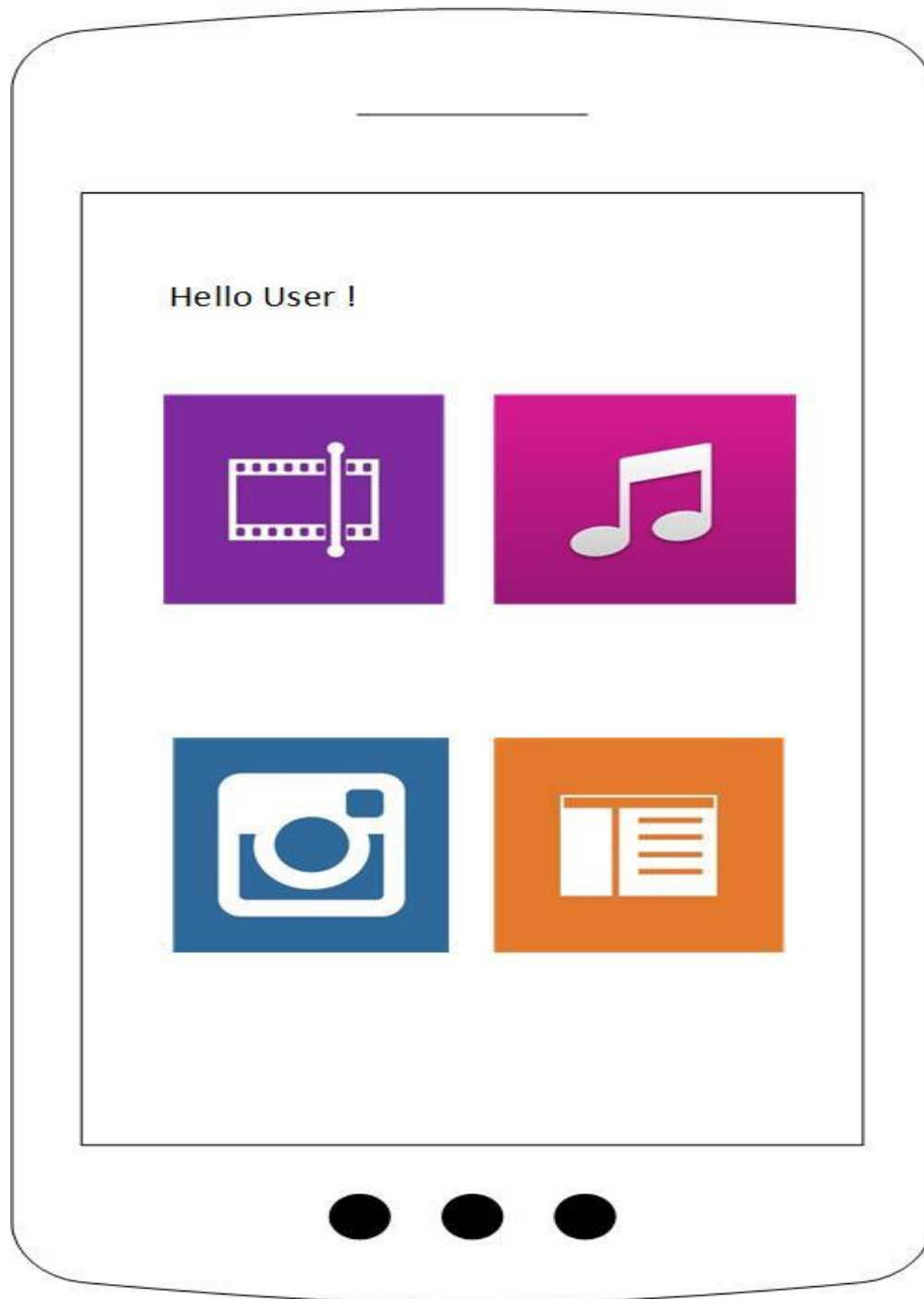Enter your city

Kansas city

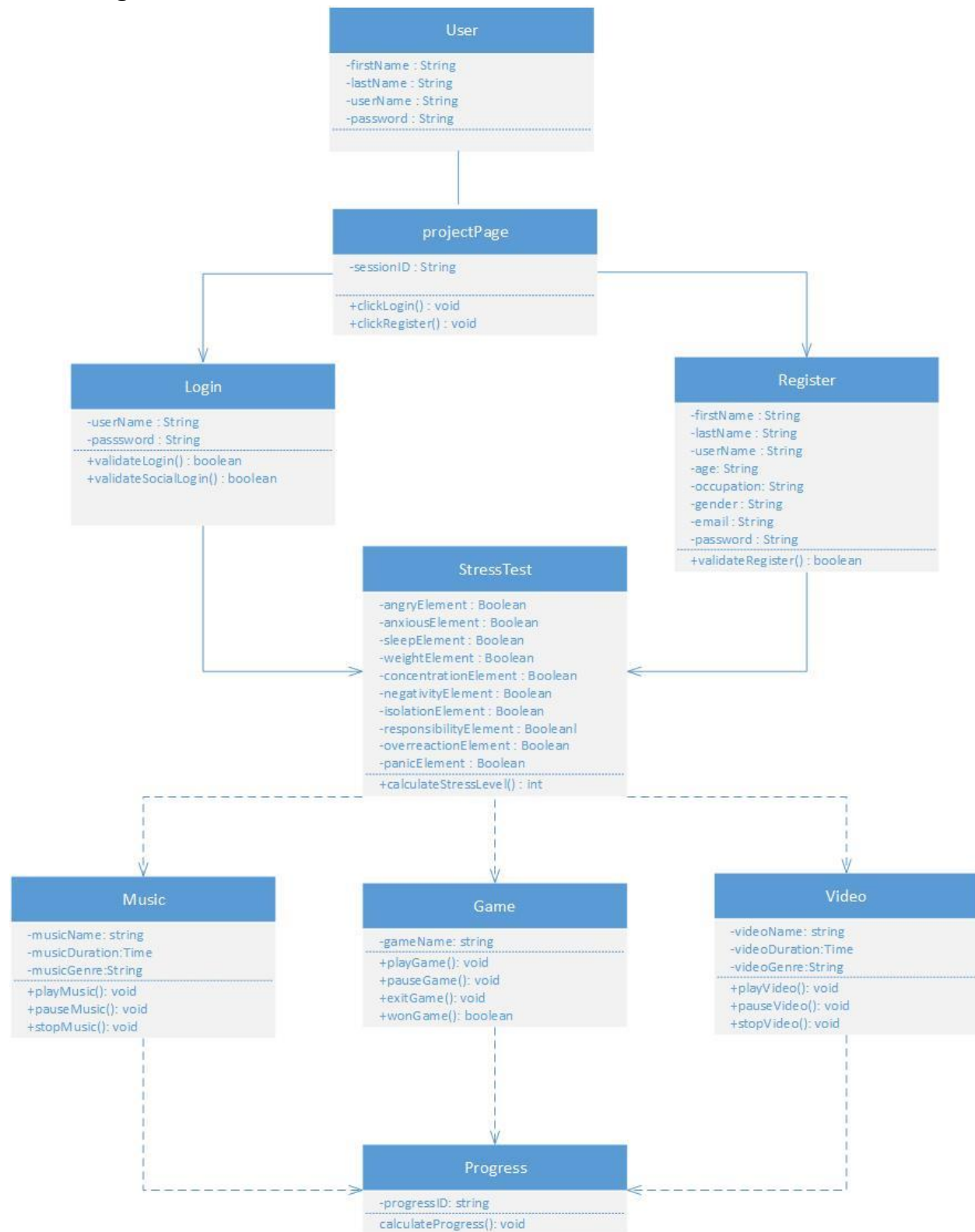Select your interest

Dance class

Join now!!

Todd Bolender center for Dancing
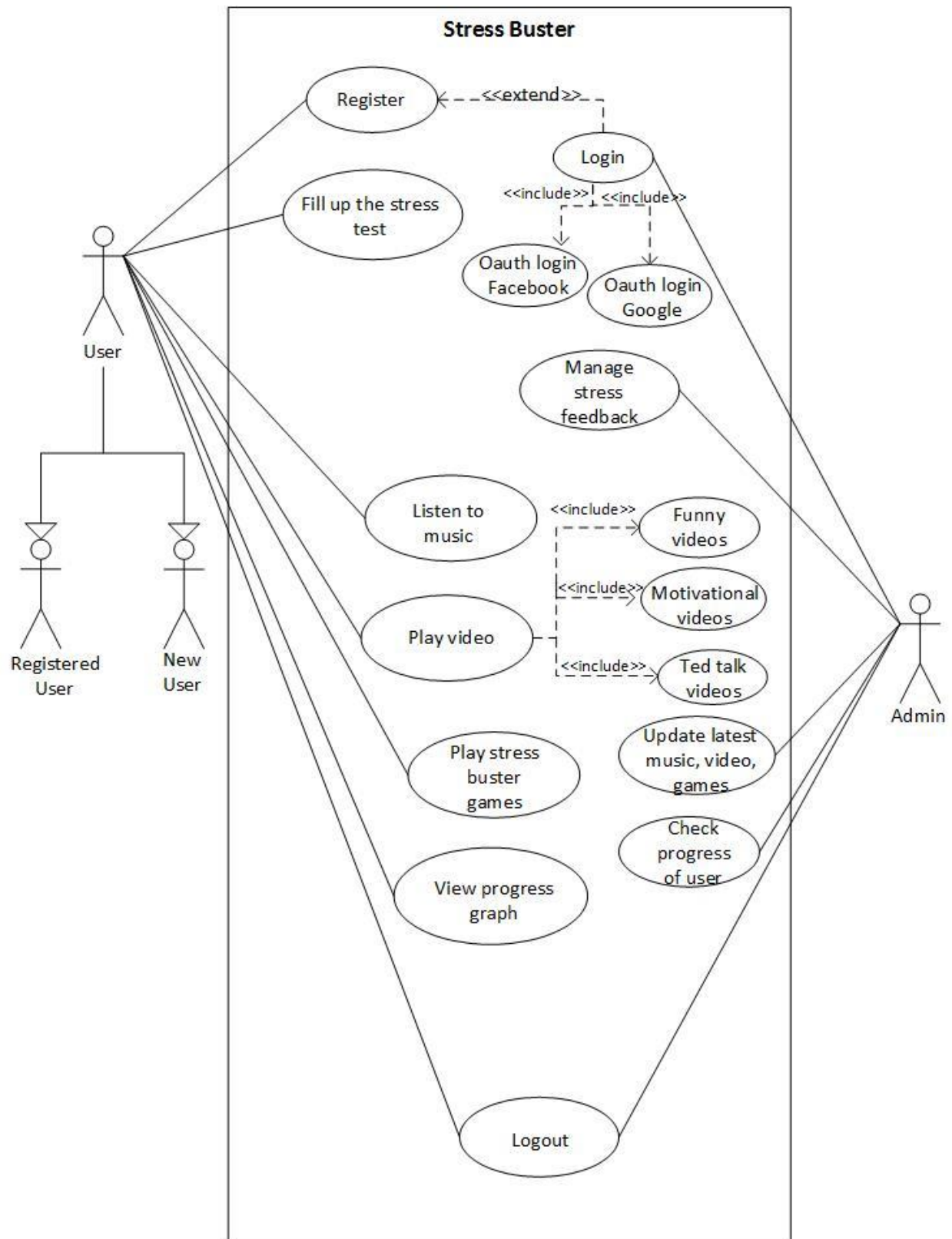Kansas city Ballet
Dance Spot
Global Dance

v)   Wireframe for Gallery page
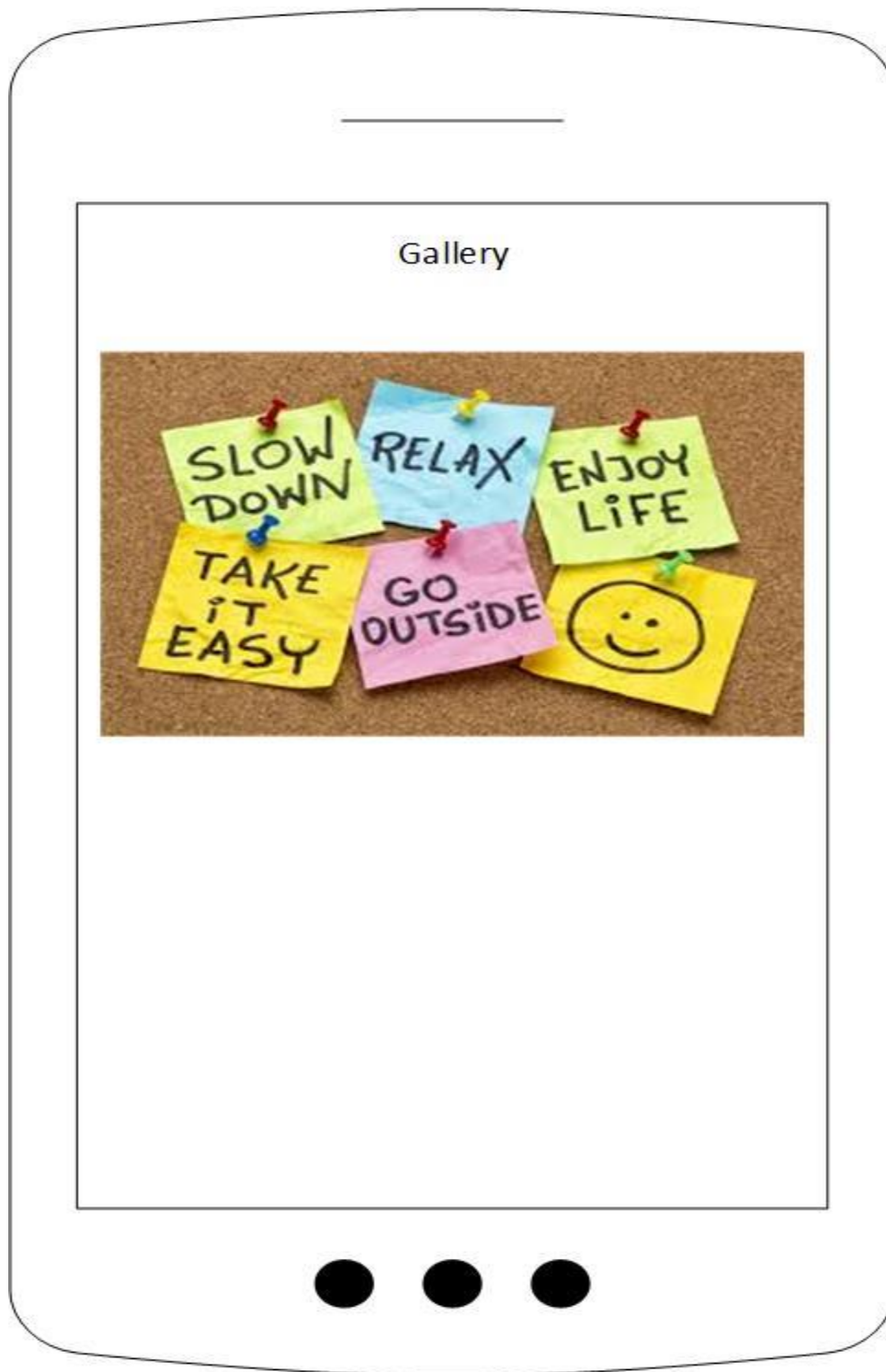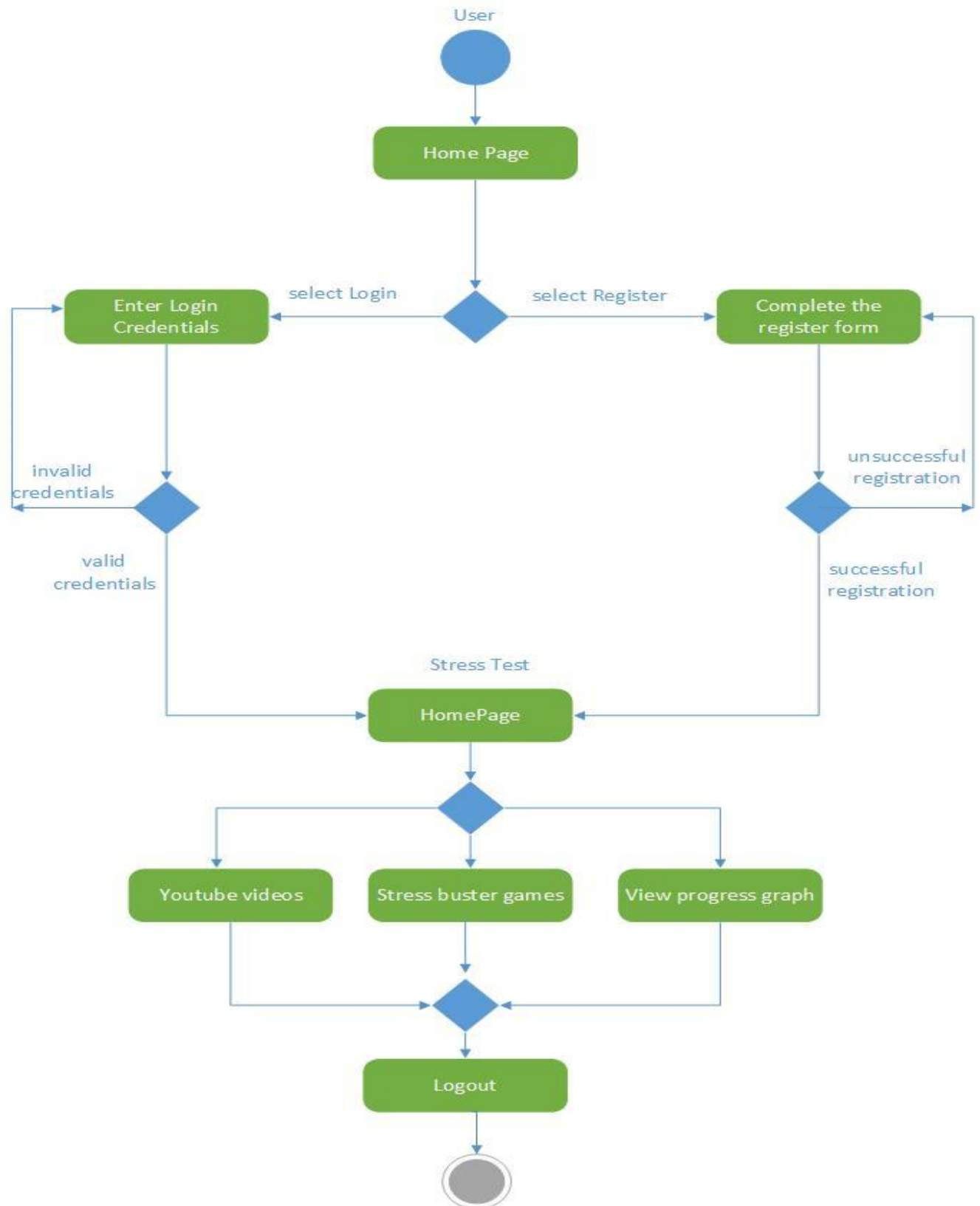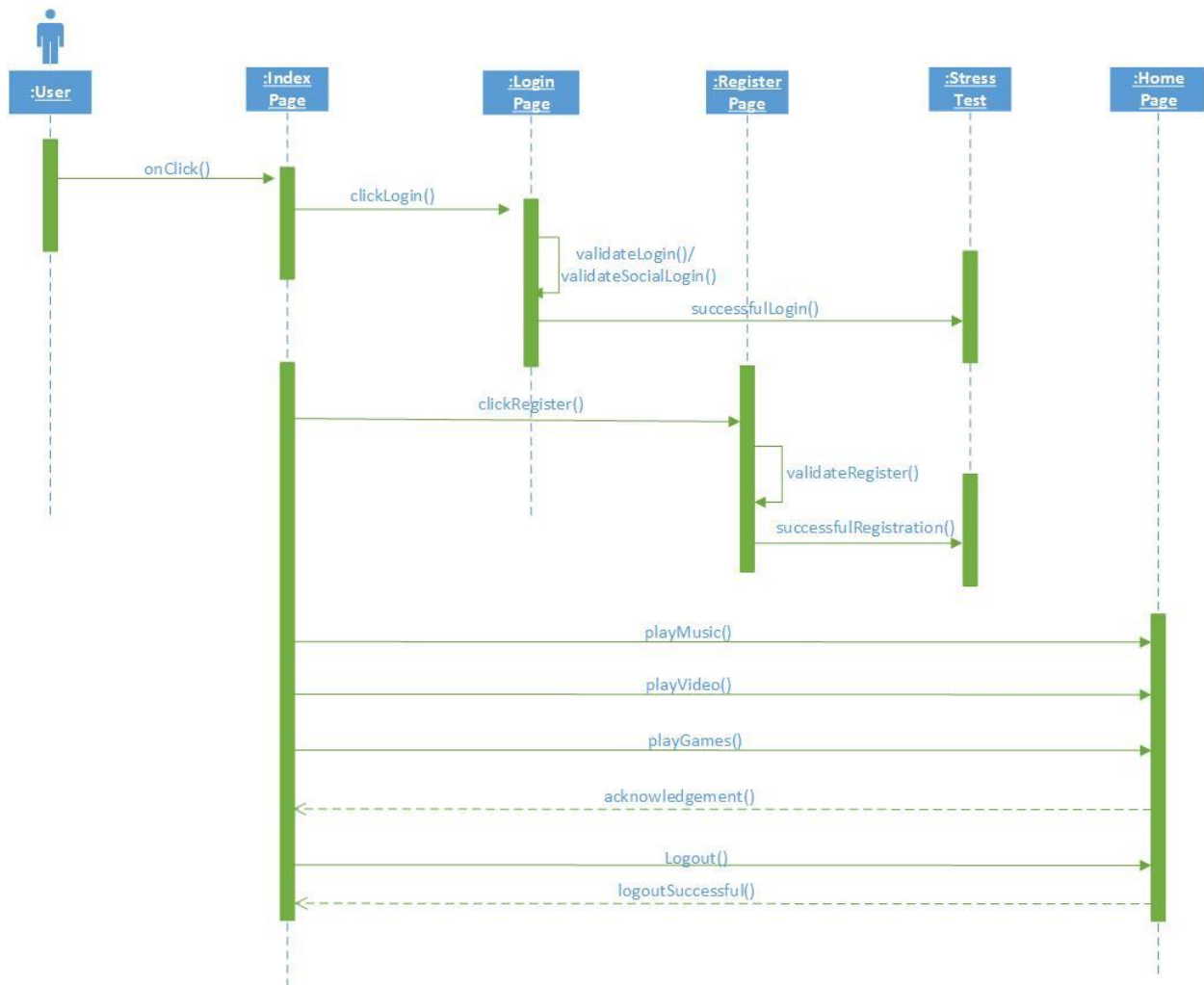
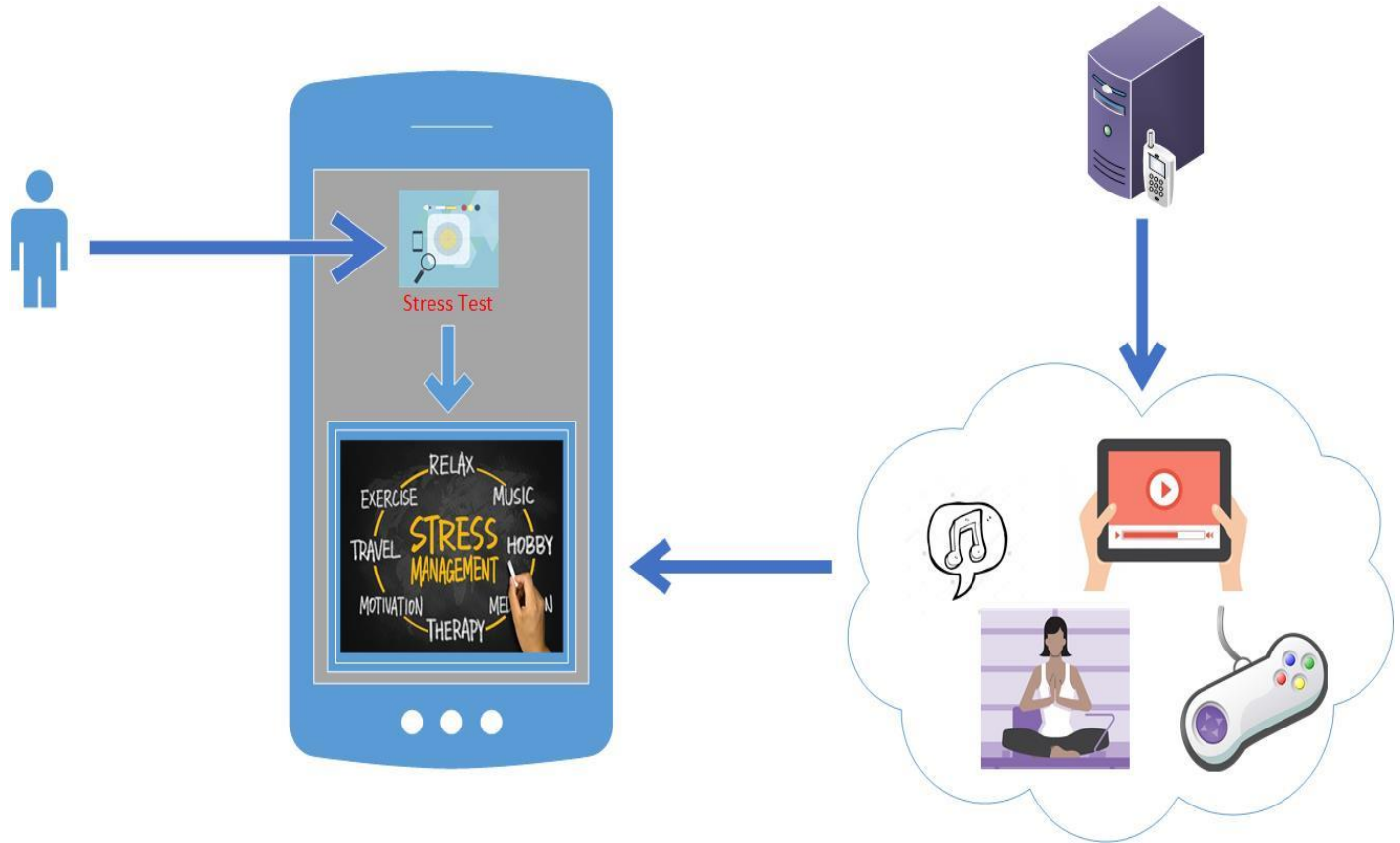**vii)   Wireframe for Home page**

Class Diagram

User

-firstName : String
-lastName : String
-userName : String
-password : String

projectPage

-sessionID : String

+clickLogin() : void
+clickRegister() : void

Login

-userName : String
-passsword : String

+validateLogin() : boolean
+validateSocialLogin() : boolean

Register

-firstName : String
-lastName : String
-userName : String
-age: String
-occupation: String
-gender : String
-email : String
-password : String
+validateRegister() : boolean

StressTest

-angryElement : Boolean
-anxiousElement : Boolean
-sleepElement : Boolean
-weightElement : Boolean
-concentrationElement : Boolean
-negativityElement : Boolean
-isolationElement : Boolean
-responsibilityElement : BooleanI
-overreactionElement : Boolean
-panicElement : Boolean
+calculateStressLevel() : int

Music

-musicName: string
-musicDuration:Time
-musicGenre:String
+playMusic(): void
+pauseMusic(): void
+stopMusic(): void

Game

-gameName: string
+playGame(): void
+pauseGame(): void
+exitGame(): void
+wonGame(): boolean

Video

-videoName: string
-videoDuration:Time
-videoGenre:String
+playVideo(): void
+pauseVideo(): void
+stopVideo(): void

Progress

-progressID: string
calculateProgress(): void

Use Case Diagram

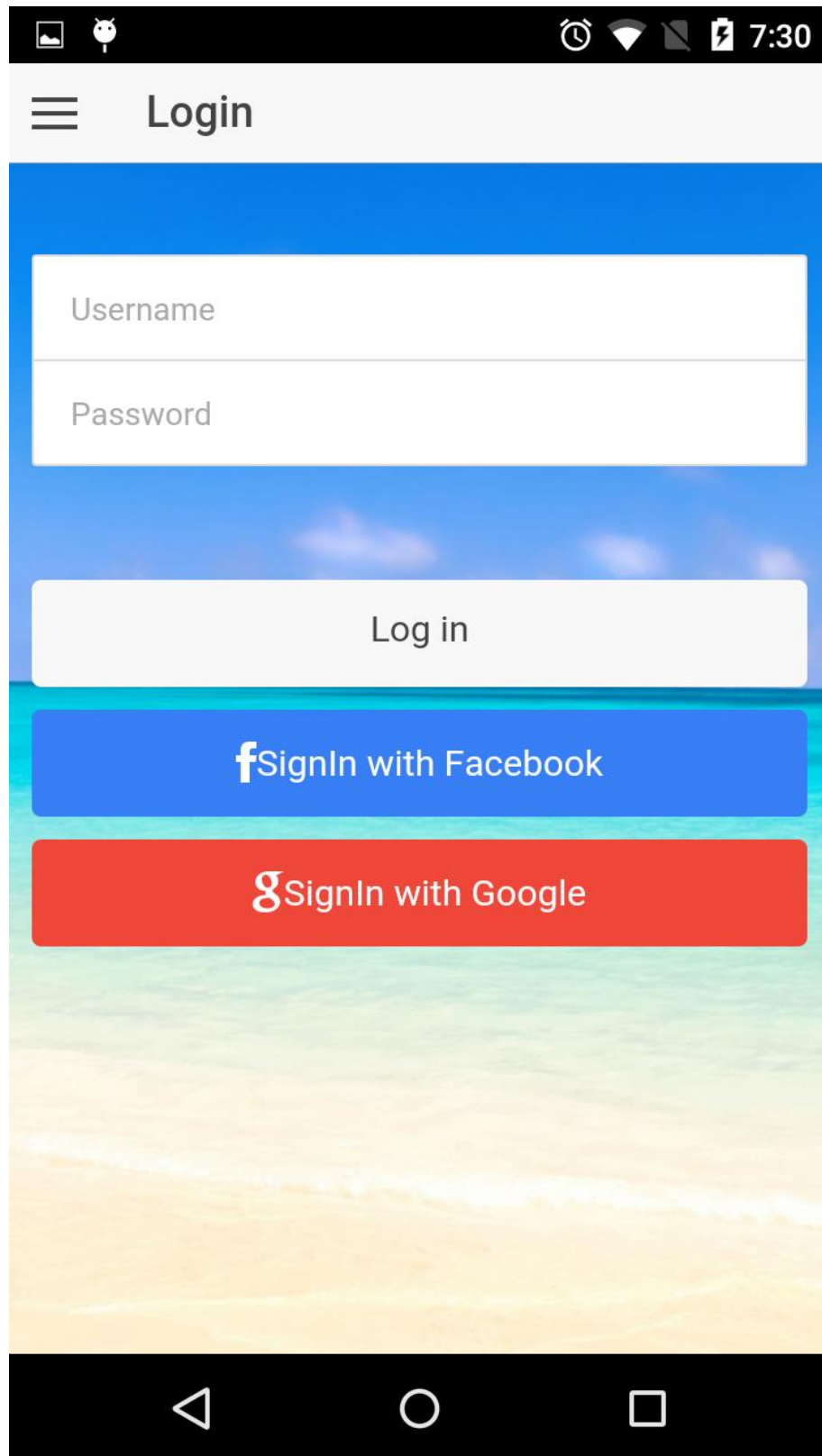## Activity Diagram

Sequence Diagram
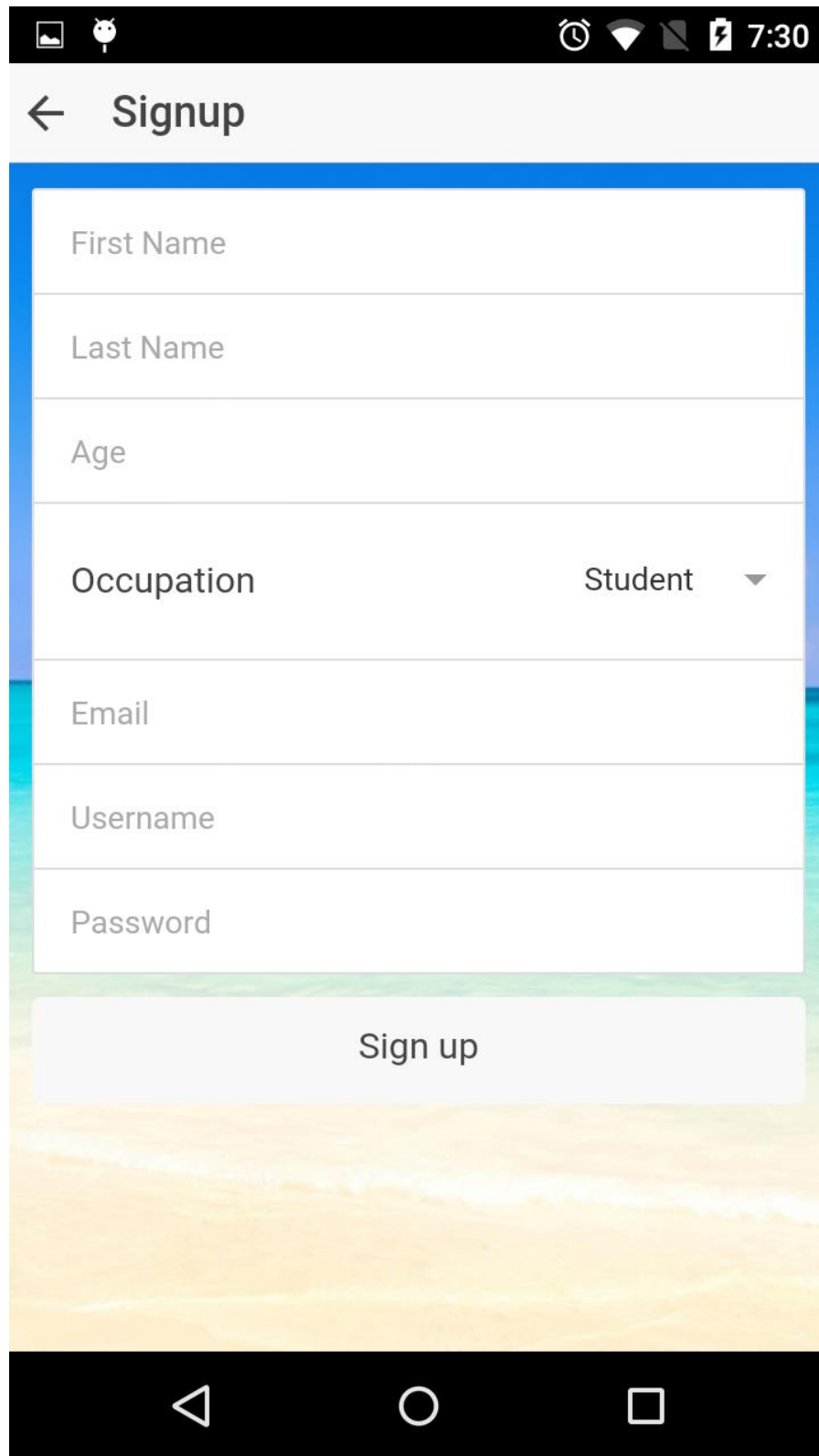
Architecture Diagram

V.   Implementation

Launch Screen in Android
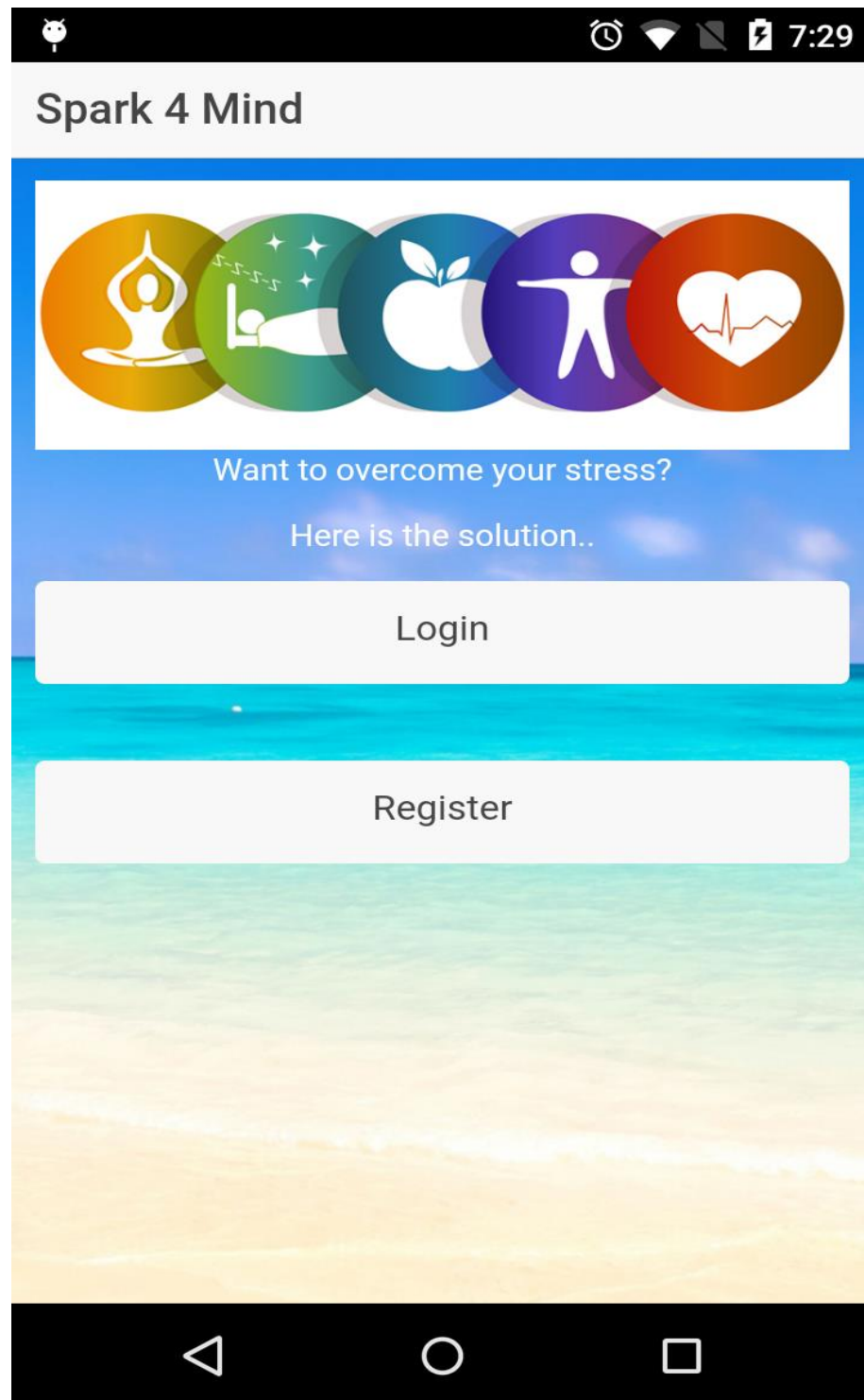
Login Screen in Android

Registration Screen in Android

Settings

Stress Test Form Screen in Android

Home Page

Youtube Player

Gallery

Side Menu

Class Page

VI.   <u>Testing</u>

Unit Testing

Sr. No.	Test Case	Description	Expected Outcome	Result
1.	Successful User Authentication	The user should login with username and password.	Successful Login	Pass
2.	Unsuccessful User Authentication	The user logs in with wrong username or password.	Login unsuccessful with error- Invalid username or password	Pass
3.	Successful user Oauth Login	The user enters correct credentials in Google or Facebook.	Successful login and transition to Home page	Pass
4.	Invalid Email ID	Admin accepts registration details from the user.	Successful registration and transition to Login page	Pass
5.	Registration by new user	Invalid Email Id alert.	Error- Enter valid email address	Pass

VII.   Technology Used

Implementation of Mobile Apps- Technology Used

- Android SDK
- HTML
- CSS
- Ionic
- Javascript

VIII.   <u>Project Management</u>

Work completed

Design and implementation of Launch page::

> Launch page consists of basic information about the application with two buttons- Login and Register.

Design and implementation of Login page::

> Login page will login into the application and also has Oauth 2.0 social login with Facebook and Google.

Design and implementation of Registration page::

> Registration page will retrieve the basic information from the user like-Name, Age, Occupation, Username and Password. Stress is different for people with different age group and different occupation.

Design and implementation of Stress Test page::

> Stress Tester page will ask users various questions that will test the level of user's stress based upon their input.

Design and implementation of Youtube Player::

> Based on the level of stress calculated, users can view various funny videos, motivational videos to overcome their stress.
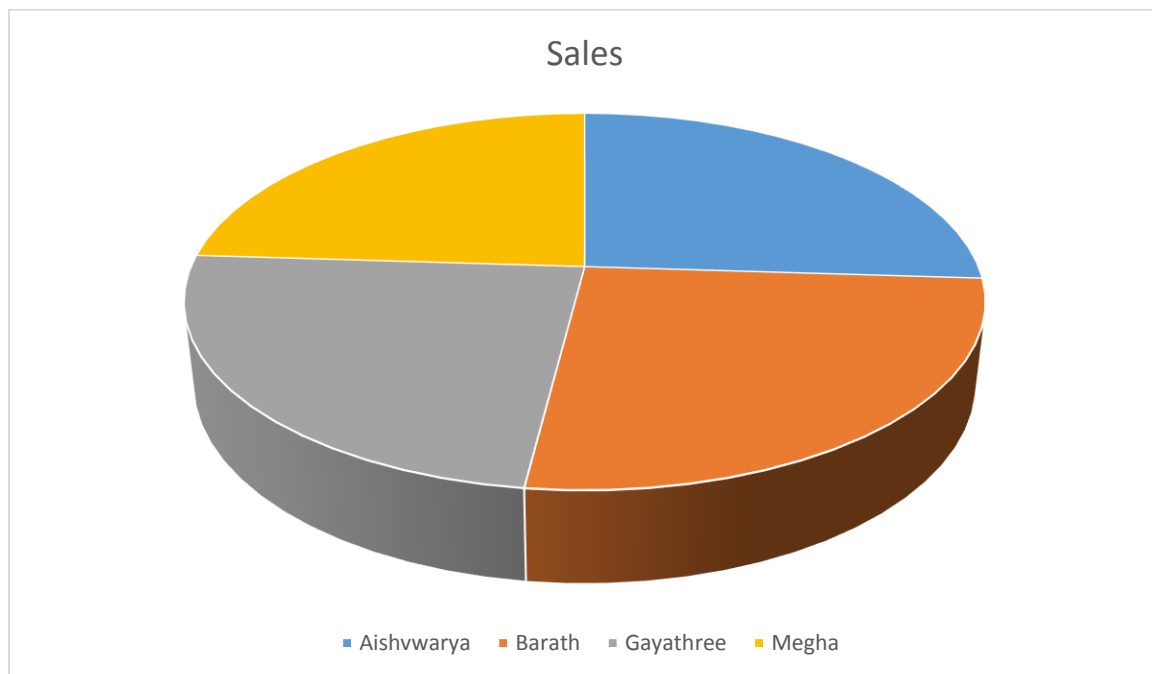
Design and implementation of Gallery page::

> Gallery will include an automatic slideshow of images representing various quick fix for stress reliving.

Design and implementation of Join Classes page::

> Users can join various classes like music, dance, yoga, exercise based on the user's location and vicinity to that class.

Contribution

➢ Barath Naravula Loganathan -- 26%
➢ Aishvwarya Natarajan Iyer – 26%
➢ Gayathree Natarajan Iyer – 24%
➢ Megha Nagabhushan – 24%

IX.   Bibliography

https://www.ted.com/talks/andy_puddicombe_all_it_takes_is_10_mindful_minutes

http://www.techtimes.com/articles/57571/20150605/12-mobile-apps-that-help-relieve-stressand-anxiety.html

http://www.mindbodygreen.com/0-2557/Why-Stress-Management-Is-So-Important-for-Your-Health.html

https://www.verywell.com/tips-to-reduce-stress-3145195

http://www.webmd.com/balance/guide/blissing-out-10-relaxation-techniques-reduce-stress-spot