PES UNIVERSITY

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Bangalore-100

PROJECT REPORT
ON

"BMI CALCULATOR AND EXERCISE PLANNER"

Submitted in partial fulfillment of the requirements for the IV Semester
Android App Development (UE19CS257A)

Bachelor of Engineering
IN
COMPUTER SCIENCE AND ENGINEERING

For the Academic year
2020-2021

BY

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CERTIFICATE

Certified that the project work entitled **"BMI CALCULATOR AND EXERCISE PLANNER"** is a bonafide work carried out by MIHIR SONI, AADITYA D NAIR, MRUDUL YATHISHA, MD MUSHTAQ bearing SRN: PES2UG19CS232, EC005, EC072, CS226, students of **PESUniversity EC CAMPUS in** partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of the **PES University**, **Bangalore** during the year 2020-2021.

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Declaration

I hereby declare that the project entitled **"BMI CALCULATOR AND EXERCISE PLANNER"** submitted for Bachelor of Engineering in Computer Science and Engineering of PES University EC Campus, Bangalore is my original work and the project has not formed the basis of the awards of any degree, associate ship, fellowship or any other similar titles.

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Place: PES UNIVERSITY EC CAMPUS, Bengaluru

Date: 7 May, 2021

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1. ABSTRACT

Our app is designed specifically for users who want to stay fit and it provides an easy interface to help in that.

This app is useful for calculating BMI as well as planning workouts for users.

This app also plays motivational workout music to get you through the workout.

On the whole, our app is designed to give the users a user-friendly experience to working out from the comfort of your home.

2. INTRODUCTION

Physical activity and exercise are the best things one can do for oneself. In these days where people are so busy with work and study, it is easy to forget the very important task of keeping oneself healthy with exercise. Thus, the main subject around which the app revolves is workout management.

The goal of the BC&EP application is that it not only calculates your BMI but also tells you where you stand according to today's standard and gives you an exercise plan according to your goal. The app will take care of all of this in an efficient way.

Summing up, the app would have a strong impact on a user's health as it is being aligned with the latest technological and health trends.

2.1 PROJECT DESCRIPTION

This project revolves around building an Android application for BMI Calculation and Exercise Planning. The potential users of this application are fitness enthusiasts or anyone who want to change themselves physically. This app helps new customers to explore the variety of workouts that the user can choose from to allow them to get fitter and closer to their physical goals.
You can check BMI, find out where you stand in today's fitness standards, see and follow workout plans and listen to motivational music while working out.
It has 90 day programs to lose weight or gain muscle.

This project is developed on the Android Studio platform using Java language. Detailed specifications are provided in Section: 3.2

3. PROPOSED SYSTEM

3.1 MODULE DESCRIPTION

1. **Home Page**
   It is the landing page of the app. It directs to various pages (refer to Flowchart 1)

a. BMI CALCULATOR: sends user to BMI calculator page.

b. PLAY: Plays motivational music.

c. PAUSE: pauses music.

d. STOP: stops music and flushes resources used by music module.

2. **BMI Calculation Page**
   This page leads calculates BMI and sends user to exercise selector page.

a. GENDER INPUT: takes gender as spinner input (drop down menu).

b. HEIGHT INPUT: takes user height in cm as input.

c. WEIGHT INPUT: takes user weight in kg as input.

d. GO BACK: sends user to homepage.

e. CALCULATE: calculates BMI then displays it along with your weight category.

f. NEXT: sends user to exercise selector page.

3. **Exercise Selector Page**

   This page provides exercise plans to choose from.

   a) GAIN MUSCLE: sends user to muscle gain routine.

   b) LOSE WEIGHT: sends user to weight loss routine

   c) HOMEPAGE: sends user to homepage.

4. **Muscle Workout**
   Contains muscle routine.

   a) HOMEPAGE: sends user to homepage.

   b) PLAY: Plays motivational music.

   c) PAUSE: pauses music.

   d) STOP: stops music and flushes resources used by music module.

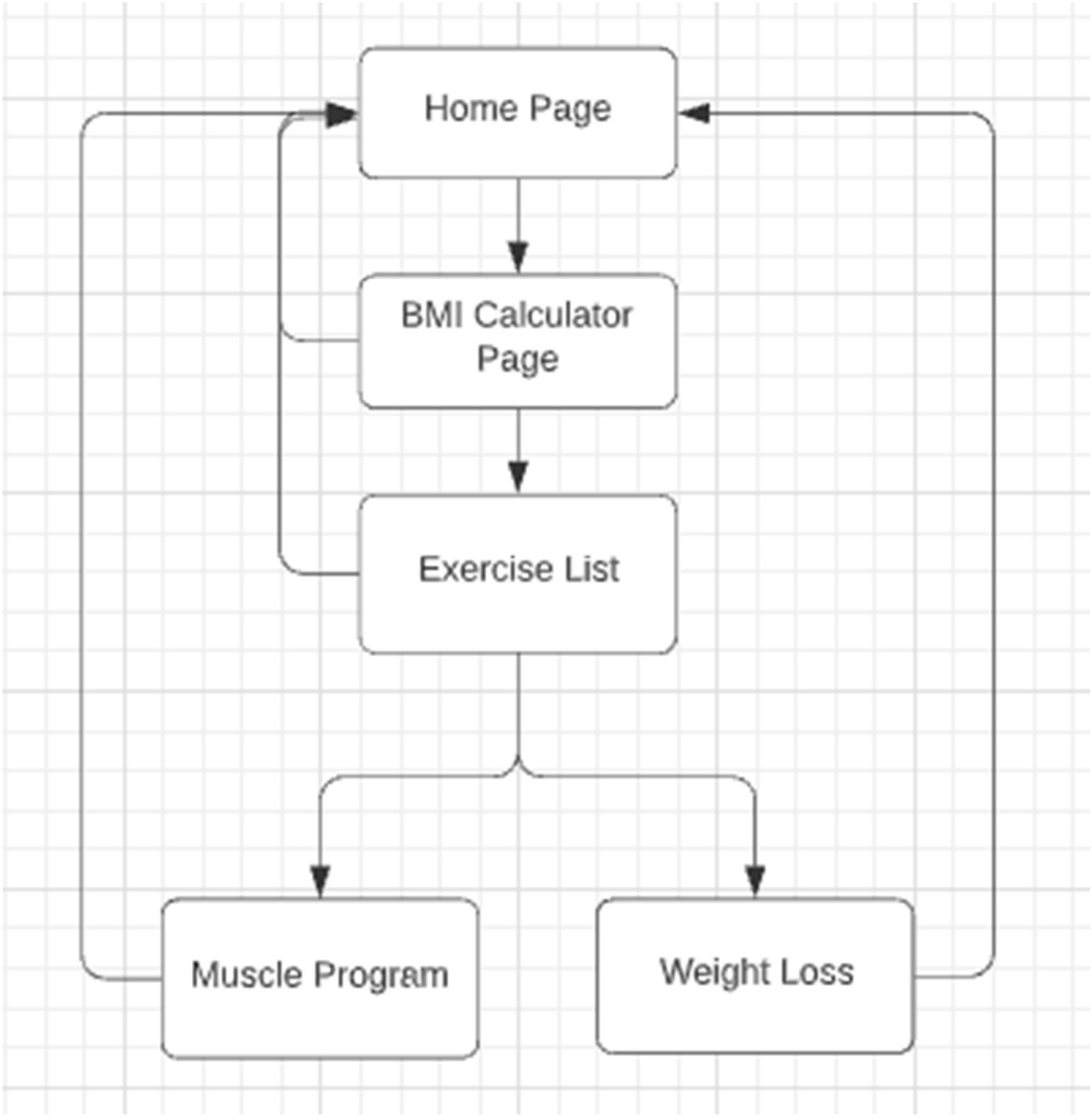
5. **Weight Loss Workout**
   Contains weight loss routine.

   a) HOMEPAGE: sends user to homepage.

   b) PLAY: Plays motivational music.

   c) PAUSE: pauses music.

   d) STOP: stops music and flushes resources used by music module.


Home Page
BMI Calculator Page
Exercise List
Muscle Program
Weight Loss

Flowchart 1

5.1 HARDWARE AND SOFTWARE REQUIRMENTS

HARDWARE REQUIREMENTS:

Developing Environment:

a. RAM	2GB minimum,4GB recommended
b. Processor	Intel Core i3 / i5 or higher
c. Hard disk(space)	Min 400MB upto to 40GB
d. Android SDK,emulator system images and caches	At least 1 GB
e. Screen Resolution	1280 x 800 pixels
f. Mouse and Keyboard	Required

Client Environment:

a. Hard disk	Upto 30GB
b. RAM	512MB
c. Processor	Pentium IV or above
d. Monitor	15 VGA Color
e. Display	Super VGA with resolution of 1280 x 800
f. Internet Connection	Required

SOFTWARE REQUIREMENTS:

Developing Environment:

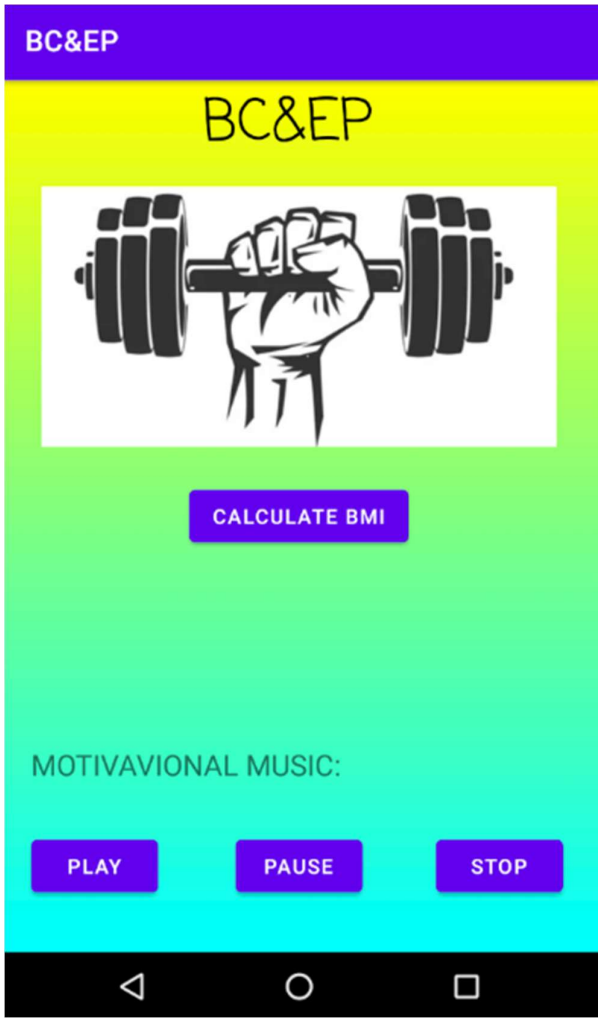
a. Java Development Kit	JDK version 7 or above
b. SDK version	26.1.1 or higher
c. android version	Android 9.0 or higher
d. Operating system	Windows 10 (32 or 64 bit)
e. Tools	Android studio

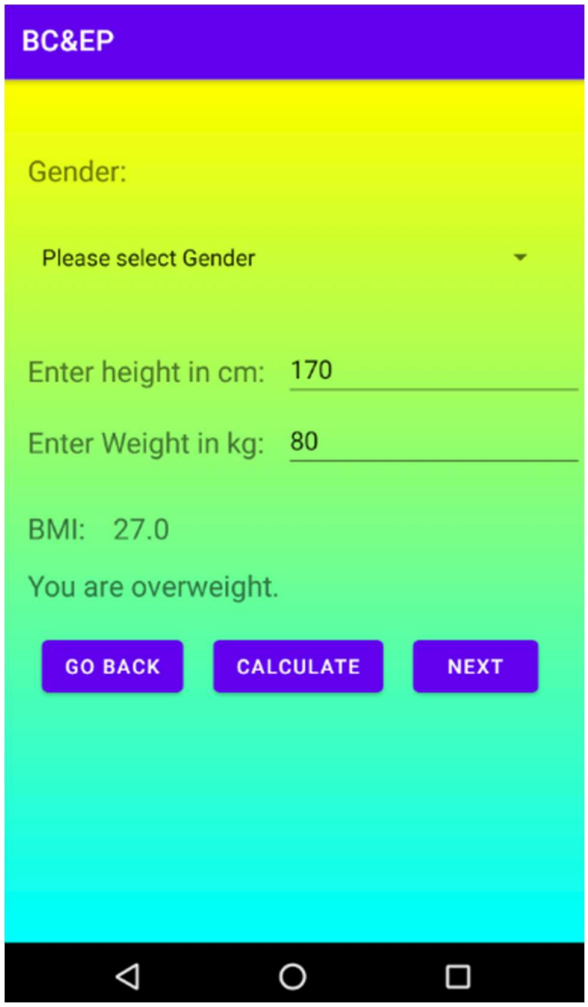
f. Emulator	Genymotion
g. Coding Language	Java

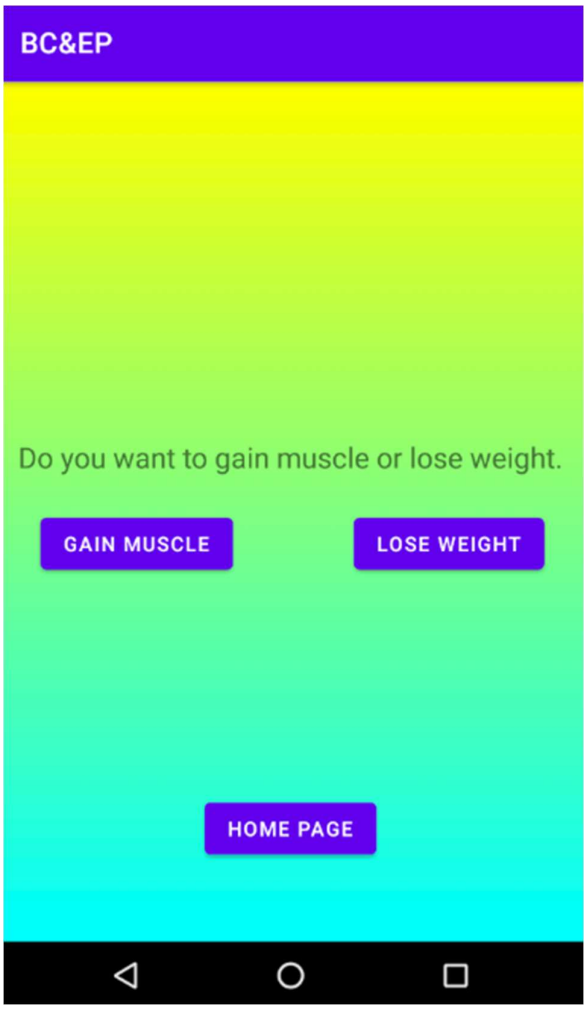
Client Environment:

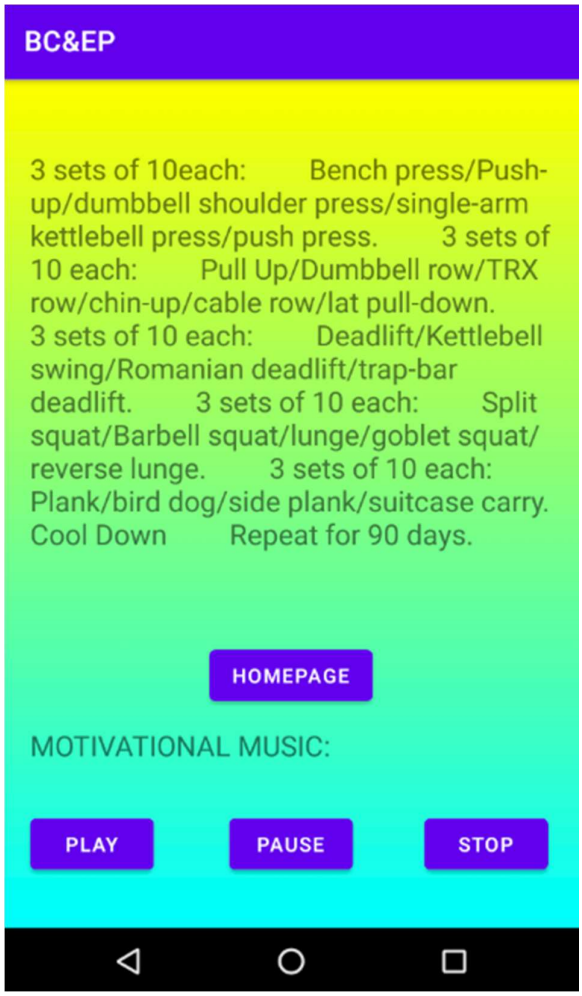
a. Android version	Android 8.0 or higher
b. Browser	Not required
c. Internet	Required

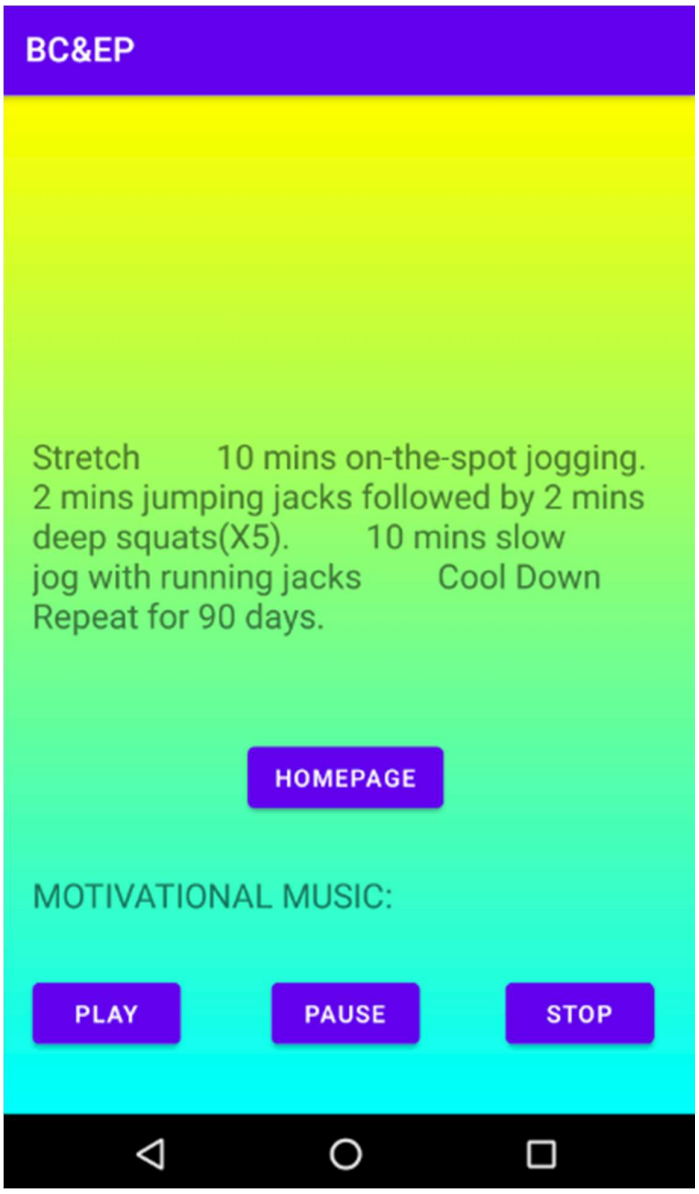
6. SCREENSHOTS






BC&EP
Do you want to gain muscle or lose weight.
GAIN MUSCLE
LOSE WEIGHT
HOME PAGE


BC&EP
3 sets of 10each: Bench press/Push-up/dumbbell shoulder press/single-arm kettlebell press/push press. 3 sets of 10 each: Pull Up/Dumbbell row/TRX row/chin-up/cable row/lat pull-down. 3 sets of 10 each: Deadlift/Kettlebell swing/Romanian deadlift/trap-bar deadlift. 3 sets of 10 each: Split squat/Barbell squat/lunge/goblet squat/ reverse lunge. 3 sets of 10 each: Plank/bird dog/side plank/suitcase carry. Cool Down Repeat for 90 days.
HOMEPAGE
MOTIVATIONAL MUSIC:
PLAY
PAUSE
STOP


BC&EP
Stretch 10 mins on-the-spot jogging.
2 mins jumping jacks followed by 2 mins
deep squats(X5). 10 mins slow
jog with running jacks Cool Down
Repeat for 90 days.
HOMEPAGE
MOTIVATIONAL MUSIC:
PLAY
PAUSE
STOP

7. CONCLUSION

BC&EP will play a pivotal role in many people's lives giving them a healthier routine to follow. Our app has been developed to the best of our knowledge to provide an easy-to- use environment for accessing the state of the art facilities. We have provided ways whereone can calculate BMI, get a suitable routine and listen to music while following said routine for an all-round pleasant experience and a new outlook on working out as not just a boring painful necessity but a fun movement that passes time quickly and pleasantly.

8. FUTURE SCOPE

The current mobile application can be enhanced by including the following features:

- Synchronizing with android wear smart watches for enhanced usability of the app by the users.
- Login page for better usability of the app.
- OTP generation to validate users at the time of account creation via the mobile application. This ensures better security levels.
- Multiple display language options shall be made available for elevating the user experience.
- Multiple user profiles for high functionality.
- Addition of alarm feature.
- Addition of more workout plans.

9. BIBLIOGRAPHY

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