



FINAL YEAR PROJECT REPORT

**HOB FITNESS ANDROID WELLNESS AND
FITNESS APPLICATION**

**In fulfillment of the requirement
For degree of
BS (Information Technology)**

By

**UBAID-UR-REHMAN
HADI KHAN
BILAL NADEEM**

**57356 (BSIT)
57349 (BSIT)
57355 (BSIT)**

SUPERVISED

BY

MR MAROUF

**BAHRIA UNIVERSITY (KARACHI CAMPUS)
SPRING-2022**

The copyright of this report belongs to Bahria University according to the Intellectual Property Policy of Bahria University BUORIC-P15 amended on April 2019. Due acknowledgement shall always be made of the use of any material contained in, or derived from, this report.

© 2019 Bahria University. All right reserved.

ACKNOWLEDGEMENTS

We would like to thank everyone who had contributed to the successful completion of this project. We would like to express my gratitude to my research supervisor, Mr Marouf for his/her invaluable advice, guidance and his/her enormous patience throughout the development of the research.

In addition, We would also like to express my gratitude to our loving parent and friends who had helped and given me encouragement.

HOB Fitness: Android Wellness and fitness Application

ABSTRACT

Depression is a constant feeling of sadness and loss of interest, which stops you doing your normal activities. Different types of depression exist, with symptoms ranging from relatively minor to severe. Generally, depression does not result from a single event, but from a mix of events and factors. Physical activity is not only good for your body, it's also great for your mind. Being active releases chemicals in your brain that make you feel good - boosting your self-esteem and helping you concentrate as well as sleep well and feel better. Being active doesn't have to mean taking out an expensive gym membership or running marathons. Finding an activity you enjoy can give you a goal to aim for and a sense of purpose. It's even better if you're able to get active outdoors. Research shows that being in nature can make us feel happier, feel our lives are more worthwhile, and reduce our levels of depression and anxiety. Nature doesn't have to mean forests or national parks either: walking to a local common, visiting a friend's garden or simply noticing trees and flowers planted by the roadside can boost your mental wellbeing.

TABLE OF CONTENTS

<u>DECLARATION</u>	i
<u>APPROVAL FOR SUBMISSION</u>	i
<u>ACKNOWLEDGEMENTS</u>	iv
<u>ABSTRACT</u>	x
<u>List Of Figure</u>	xii

CHAPTER 1

1	INTRODUCTION	1
	1.1 Background	1
	1.2 Problem Statement	2
	1.3 Aims and Objectives	2
	1.4 Scope of Project	3

CHAPTER 2

2	LITERATURE REVIEW	4-5
---	-------------------	-----

CHAPTER 3

3	DESIGN AND METHODOLOGY	
	3.1 Design	6
	3.2 Modules	7
	3.2.1 Fitness	7

3.2.2	Assessment	7
3.2.3	Recommendations	8
3.3.3	Entity Relationship Diagram(ERD)	8
3.4	Methodology	9
3.4.1	Information Gathering	9
3.4.2	Design	10
3.4.3	Development	10
3.4.4	Testing	10
3.4.5	Reviews	11
3.4.6	Maintenance	11
3.5	Data gathering and Initial requirements:	11
3.6	Use case:	12
3.6.1	Use case (Wellness Application):	12
3.6.4	Application Flow Diagram:	12
3.6.5	Context Diagram:	13
3.6.6	Sequence Diagram:	14
3.6.7	Structure Diagram:	15
3.6.8	Data Flow Diagram	16
3.7	GUI of Application:	17
3.7.1	User interface of Application:	17
3.15.1	Splash Screen:	18
3.15.2	Signup/Signin	18
3.15.3	Signup	18
3.15.4	Signin	19
3.15.5	UI For Calorie Calculation	19
3.15.6	Calorie Result output	19
3.15.7	Exersice Plans	19

3.158	Plans according to User Fitness Level	20
3.159	Macro Neturient Chart	20
3.15.10	Exersice plan (DayWise)	20
3.15.11	Exersice Demonstration	20
3.15.12	Mental Health Module	20
3.15.13	Mental health Questionnaire	20
3. 15.14	Mental Health Dashboard	21
3. 15.15	Mental Health Recommendation	21
3. 15.16	Step Counter	21

CHAPTER 4

4	IMPLMENTATION	22
4.1	Components in project:	22
i.	Main.Dart	22
ii.	Signin.Dart	23
iii.	Signup.Dart	23
iv.	Basicinfo.Dart	24
v.	PhysicalFitness.Dart	24
vi.	Account.Dart	25
vii.	Exersice.Dart	25
viii.	Videoplayer.Dart	26
ix.	PlansCalender.Dart	26
x.	SharedPrefernce.Dart	27
xi.	home_page.Dart	27

CHAPTER 5

5	RESULTS AND DISCUSSION	28
5.1	TESTING	29
5.2	TYPES OF TESTING	29
5.2.1	White box Testing	29

	5.2.1 Figure Application Code	
	5.2.2 Black box Testing	29
	5.2.2 Figure Application	
5.3	TEST CASES	30
	5.3.1 User Application Test Cases:	31
	5.3.2 User Application Test Cases:	32
	5.3.3 User Application Test Cases:	32
	CHAPTER 6	33
6	CONCLUSION AND RECOMMENDATIONS	33
	6.1 CONCLUSION	34
	6.2 FUTURE WORK	34
	REFERENCES	35