

TABLE OF CONTENTS

ACKNOWLEDGEMENT	i
ABSTRACT	ii
LIST OF FIGURES	vi
LIST OF TABLES	viii

CHAPTERS	PAGE NO.
Chapter 1 Introduction	1
1.1 Android	1
1.1.1 Why Android	1
1.1.2 Android Architecture	2
1.2 Google Cloud Messaging	5
1.2.1 GCM Architecture	5
1.2.2 GCM Lifecycle	6
1.3 Organization of Report	7
Chapter 2 Literature Survey	9
2.1 Improve student learning using formative assessment system	9
2.2 Students satisfaction as a quality management technique in higher education	10
2.3 TouchIn: An NFC supported attendance system	10
2.4 POS terminal using biometric for attendance management system	11
Chapter 3 Problem definition	13
3.1 Purpose of project	13
3.2 Motivation of project	13
3.3 Problem Statement	14
3.4 Project Objective	14
3.5 Existing Systems	14

3.5.1 Disadvantages of existing system	15
3.6 Proposed System	15
3.6.1 Advantages of proposed system	15
Chapter 4 System requirement specification	16
4.1 Introduction to system requirement specification	16
4.2 Functional requirements	16
4.3. Non-functional requirements	17
4.4 Software requirements	17
4.5 Hardware requirements	20
Chapter 5 System Design	22
5.1 Principles of design	22
5.2 High level design	24
5.2.1 Use Case diagram	25
5.2.2 Sequence diagram	27
5.2.3 Flow Chart diagram	31
Chapter 6 Implementation and results	34
6.1 Login	34
6.2 Google Cloud Messaging	37
6.3 Appraisal request and Verification	38
6.4 Evaluation and attendance	41
Chapter 7 Testing	43
7.1 Testing Principle	43
7.2 Testing methods	43
7.3 Levels of testing	44
7.3.1 Unit Testing	44
7.3.2 Integration Testing	45
7.3.3 Component Interface Testing	46
7.3.4 System Testing	46
7.3.5 Acceptance Testing	47

7.3.6 Alpha Testing	48
7.3.7 Beta Testing	48
Chapter 8 Conclusion and Future Enhancement	49
8.1 Conclusion	49
8.2 Future Enhancements	49
References	50

List of Figures

FIGURE NO.	PAGE NO.
Fig 1.1 Android features	2
Fig 1.2 Android Architecture	2
Fig 1.3 GCM Architecture	5
Fig 5.1 Principles of Software Design	23
Fig 5.2 Admin Use Case Diagram	25
Fig 5.3 Faculty Use Case Diagram	26
Fig 5.4 Student Use Case Diagram	26
Fig 5.5 Login Phase Sequence Diagram	28
Fig 5.6 Faculty Phase Sequence Diagram	29
Fig 5.7 Student Phase Sequence Diagram	30
Fig 5.8 Login Phase Flow Chart Diagram	31
Fig 5.9 Faculty Phase Flow Chart Diagram	32
Fig 5.10 Student Phase Flow Chart Diagram	33
Fig 6.1(a) Student: welcome page	34
Fig 6.1(b) Faculty: welcome page	34
Fig 6.2(a) Student's Details	35
Fig 6.2(b) Faculty Details	35
Fig 6.3(a) Student: ID Validation	36
Fig 6.3(b) Faculty: ID Validation	36
Fig 6.4 First Time Password Validation	37
Fig 6.5 Successful Login Page Welcome	37
Fig 6.6 Student GCM registration	37
Fig 6.7(a) Appraisal Request page	38
Fig 6.7(b) Appraisal Request sent	38
Fig 6.8(a) Appraisal Notification	39
Fig 6.8(b) Appraisal Entry Page	39
Fig 6.9 Appraisal Recorded	39
Fig 6.10 Head Count Dialogue Box	40

Fig 6.11	Appraisal Stored	40
Fig 6.12(a)	Rejection Conformation	40
Fig 6.12(b)	Appraisal Rejected	40
Fig 6.13	Appraisal Result	41
Fig 6.14	Attendance Page	41

List of Tables

TABLE NO.	PAGE NO.
7.1 Test Cases for Unit testing	45
7.2 Test Cases for Integration Testing	46
7.3 Test Cases for System Testing	47