

Dedication

This crime reporting system project is dedicated to our parents and most respectful Adviser, who always taught us good and helpful knowledge about the project. And always encourage us. And this is dedicated to our parents who taught us and boost up to about this project. Always they say that complete your task step by step you can do that. I am thankful to our department in University of management and technology to give us this opportunity to complete this project with the help us by most talented staff on this campus. And at last, we are thankful to Almighty Allah.

Final Approval

Panel of Examiners

- **Head of Department**
Department of Computer Science
UMT Lahore

- **Program Director (Final Year Projects)**
Department of Computer Science
UMT Lahore

- **Supervisor**
Department of Computer Science
UMT Lahore

- **Co-Supervisor**

Acknowledgment

We are thankful to head of the department school of system and technology for providing us best-related resources for completing this project successfully. Throughout the project, we found always some best suggestion regarding our project from SST faculty.

Now we are grateful to our project adviser Sir Rao Faizan Ali and Sir Dr. Adnan Shahzada (Assistant Professor, Director Final Projects (CS & IT)) for their best information and suggestion regarding our project. And thanks to all the teachers and staff in our SST department and friends for any kind of help in our crime reporting system project.

But last not the least we are thankful to our parents who guided us through every step.

Project Title	Crime Reporting System
Objective	Easy access to police/rescue and fastest way to submit crime report.
Supervised by	Sir Rao Faizan Ali
Starting Date	01-09-2016
Completion Date	31-07-2017
Tools Used	HTML, CSS, Meteorjs, JAVA SCRIPT, JAVA
Operating System	Web Base, Android
Documentation	

Abstract

The CRIME REPORTING SYSTEM is a web based and android application system to register online Complaint It is developing to reduce the crime. Today crime rate is highly grown and to control it you need an Information Management. The transparency of the police department and the most efforts with which it controls crime depend on what standard of information technology it can be used from its existing records and how fast and easy it can have access to it. Different modules of this project are Police Station module,Ambulance and Register Crime module. The Administrators module will be protected by user id and password. This system registers the reports from people through online and is helpful to the police department in identifying criminals. In this system, any person can register their report online. Generally, many crimes seen by the public will not reach to the police due to many reasons like fear, lack of time, ignorance. Using HTML, CSS, Meteorjs, JavaScript and also MongoDB database the system is designed. Through GPS (Global Positioning System) we track the crime location more accurately. And then we send request to the respective department like Police and rescue team.

REVISION CHART

Version	Primary Author(s)	Description of Version	Date Completed
Project Proposal	Muhammad Anees Zargham Ahmed	In this draft, we defend our project through presentation.	01-01-2017
Capstone 1	Muhammad Anees Zargham Ahmed	In this draft, we present half of documentation and initial work and mockup screen	25-01-2017
Final	Muhammad Anees Zargham Ahmed	Final submission and presentation.	31-07-2017
Revision 1	Muhammad Anees Zargham Ahmed	Evaluator give some suggestion for improvements.	01-03-2017
Revision 2	Muhammad Anees Zargham Ahmed	Project Accepted and appreciate about work.	10-08-2017

CONTENTS

Contents

CONTENTS	1
DEFINITIONS AND ACRONYMS	3
LIST OF FIGURES	4
LIST OF TABLES	5
1. INTRODUCTION	6
1.1 MOTIVATIONS.....	6
1.2 PROJECT OVERVIEW	6
1.3 PROBLEM STATEMENT	6
1.4 OBJECTIVES	6
2. DOMAIN ANALYSIS.....	7
2.1 CUSTOMER.....	7
2.2 STAKEHOLDERS	7
2.3 AFFECTED GROUPS WITH SOCIAL OR ECONOMIC IMPACT	7
2.4 DEPENDENCIES/ EXTERNAL SYSTEMS.....	7
2.5 REFERENCE DOCUMENTS.....	8
2.5.1 <i>Related Projects</i>	8
2.5.2 <i>Feature Comparison</i>	8
3. REQUIREMENTS ANALYSIS	10
3.1 REQUIREMENTS	10
3.2 LIST OF ACTORS.....	11
3.3 LIST OF USE CASES	11
3.4 SYSTEM USE CASE DIAGRAM.....	13
3.5 EXTENDED USE CASES.....	14
3.6 USER INTERFACES (MOCK SCREENS)	32
4. DATA FLOW DIAGRAM (OPTIONAL).....	34
4.1 DATA FLOW DIAGRAM LEVEL 0	34
4.2 DATA FLOW DIAGRAM LEVEL 1	34
4.3 DATA FLOW DIAGRAM LEVEL 2	34
5. SYSTEM DESIGN	36
5.1 SYSTEM ARCHITECTURE DIAGRAM	36
5.2 CLASS DIAGRAM.....	37
5.3 SEQUENCE DIAGRAMS	38
5.4 COLLABORATION DIAGRAMS.....	40
5.5 ERD.....	40
6. IMPLEMENTATION DETAILS.....	ERROR! BOOKMARK NOT DEFINED.1
6.1 DEVELOPMENT SETUP.....	41
6.2 DEPLOYMENT SETUP	41
6.3 ALGORITHMS	41
6.4 CONSTRAINTS	44
6.4.1 <i>Assumptions</i>	44
6.4.2 <i>System constraints</i>	44
6.4.3 <i>Restrictions</i>	44
6.4.4 <i>Limitations</i>	44

7. TESTING	45
7.1 EXTENDED TEST CASES	45
7.1.1 <i>Code snippet</i>	68
7.1.2 <i>Decision coverage table</i>	69
7.2 TRACEABILITY MATRIX	70
7.2.1 <i>RID vs UCID (requirements vs use cases)</i>	70
7.2.2 <i>Test Cases (RID vs TID)</i>	72
7.2.3 <i>Coverage (UCID vs TID)</i>	74
8. RESULTS/OUTPUT/STATISTICS.....	77
8.1 %COMPLETION.....	77
8.2 %ACCURACY.....	77
8.3 %CORRECTNESS.....	77
9. CONCLUSION	78
10. FUTURE WORK	79
11. BIBLIOGRAPHY	80
11.1 REFERENCES	80
12. APPENDIX.....	81
12.1 PRE-REQUISITES	81

Definitions and Acronyms

Acronym	Definition
CRS	Crime reporting system
GPS	Global positioning system
CRMS	Crime report management system
CRMS	Crime record management system

Table 1: Table of Definitions and Acronyms

List of Figures

Figure 1: use case diagram	Error! Bookmark not defined.
Figure 2: Mockup screen for Android	Error! Bookmark not defined.
Figure 3: Mockup screen for Web	Error! Bookmark not defined.
Figure 4 Mockup screen for Web	Error! Bookmark not defined.
Figure 5 Data Flow Level 0.....	Error! Bookmark not defined.
Figure 6 Data Flow Level.....	Error! Bookmark not defined.
Figure 7 Data Flow Level 2.....	Error! Bookmark not defined.
Figure 8 System Architecture.....	Error! Bookmark not defined.
Figure 9 Class diagram.....	Error! Bookmark not defined.
Figure 10 User Sequence Diagram.....	Error! Bookmark not defined.
Figure 11 Admin Sequence Diagram	Error! Bookmark not defined.
Figure 12 Collaboration Diagram.....	Error! Bookmark not defined.
Figure 13 ERD Diagram.....	Error! Bookmark not defined.

List of Tables

Table 1: Table of Definitions and Acronyms	3
Table 2: list of stakeholders.....	Error! Bookmark not defined.
Table 3 Feature Comparison	Error! Bookmark not defined.
Table 4: Requirements.....	Error! Bookmark not defined.
Table 52:Extended Use Case Call Police history	Error! Bookmark not defined.
Table 6: Extended Use Case of Help.....	Error! Bookmark not defined.
Table 7: Extended Test Cases create Account.....	Error! Bookmark not defined.
Table 8: Test Case create account (on same CNIC card)	Error! Bookmark not defined.
Table 9: Test Case create account (password mismatch)	Error! Bookmark not defined.
Table 10: Test Case create account (incorrect password)	Error! Bookmark not defined.
Table 11: Test Case Login.....	Error! Bookmark not defined.
Table 12: Test Case Login (forget password)	Error! Bookmark not defined.
Table 13: Test Case Login (invalid email)	Error! Bookmark not defined.
Table 14: Test Case Call Police.....	Error! Bookmark not defined.
Table 15: Test Case Call Police and check previous.....	Error! Bookmark not defined.
Table 16: Test Case Ambulance Call	Error! Bookmark not defined.
Table 17: Test Case Ambulance Call previous call.....	Error! Bookmark not defined.
Table 18 :Test Case Report incident	Error! Bookmark not defined.
Table 19: Test Case Report History	Error! Bookmark not defined.
Table 20: Test Case Report History	Error! Bookmark not defined.
Table 21: Test Case Report status	Error! Bookmark not defined.
Table 22: Test Case Save Report.....	Error! Bookmark not defined.
Table 23: Test Case Logout.....	Error! Bookmark not defined.
Table 24: Test Case Account Security	Error! Bookmark not defined.
Table 25: Test Case Admin Login.....	Error! Bookmark not defined.
Table 26: Test Case add police station	Error! Bookmark not defined.
Table 27: Test Case add new Ambulance station.....	Error! Bookmark not defined.
Table 28: Test Case Graph	Error! Bookmark not defined.
Table 29: Decision coverage table	Error! Bookmark not defined.
Table 30: RID vs UCID (requirements vs use cases).....	Error! Bookmark not defined.
Table 31: Test Cases (RID vs TID)	Error! Bookmark not defined.
Table 32: Coverage (UCID vs TID	Error! Bookmark not defined.

1. INTRODUCTION

1.1 Motivations

In our country “Pakistan” there a lot of crime which is not reported to the police station. We choose this project to give the easiest way to the people to report crime easily. Also, we direct rescue team according to the situation.

1.2 Project Overview

The objective of the project is to develop a site and android app in which any citizen can report crimes. If anybody wants to complaint against crimes he must do it through the police. The Crime Reporting System make the crime reporting easier. This project will be useful for the Police Department. Through this system admin also refer rescue department if any need of rescue. User should be search all the details regarding police and criminal records. System also track the user crime location to make efficient way of getting all details.

1.3 Problem Statement

Crime reporting system describe the main problem of crime reporting issue. many of the people who are not go to the police station because of so many issues like time, fear and not believe on the current system.in this system no need to go the police station manually,through this system you just open the website and report the crime. And also, you just open the app on your smart phone and report the crime at the spot.

1.4 Objectives

The main objective is providing a better and easiest way to people to report any crime and incident on their own location in just minutes. Through people’s direction we then direct further departments like if there is need of rescue then we refer link to rescue team else where police department.Another object is to report any single crime in the country to reduce the crime ratio. When every crime is treated well neither competition it’s a rich man case or poor man. when its treated equally its sure that no brutality crime happen often. And there is google map in this project through this map we locate the crime place and actual location where this crime is happened.