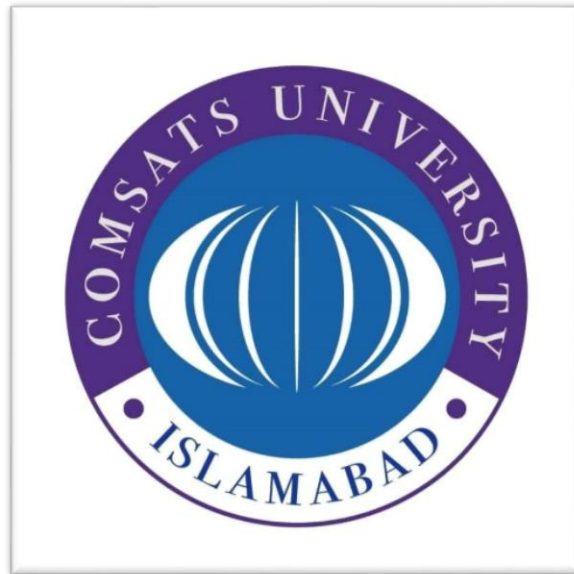


# **COMSATS University Islamabad, Attock Campus**



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**Subject: SQE**

**Assignment: 02**

**Topic: Software Requirement Specification**

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# **Software Requirements Specification**

**for**

**<Inzi Database>**

**Version 1.0 approved**

**Prepared by <Asif Mehmood>**

**<ScienceInTheWay Inc.>**

**<05 Nov 2019>**

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## Revision History

Name	Date	Reason For Changes	Version

# 1. Introduction

## 1.1 Purpose

*In the current world of technology, the banking transaction are at peak and to manually maintain its record is difficult and boring task. The system is already automated for Banking Managers who can keep the record of their respective branches but What if when we maintain the record of all branches of particular bank?*

*Area Managers are responsible for maintaining the record of all branches and their system isn't automated yet. The purpose of this application is to provide easiness to the Banking Area Manager of United Bank Limited, by automating their system so that they don't spend their most of the time in keeping the records of different branches manually.*

## 1.2 Document Conventions

*Follow the standard by using the exactly same terms in system which are used in Bank. The requirement of Generating the report has the highest priority as it is the core reason for creating this application.*

## 1.3 Intended Audience and Reading Suggestions

*The reader of this documents are: Requirements Analysts, who will verify whether the requirements are feasible. Developers, who will implement this application. Tester, who will test the application on dummy values based on requirements.*

## 1.4 Product Scope

*The scope of this system is going to be short where Branch Managers will upload the record of Bank every day like: No. of new opened and closed accounts, transactions etc. and it will be stored in Database (Firestore), then Area Managers will be able to see daily records and can generate its report. Previously, Area Managers had to check different mails from Branch Managers and note down all the record in Excel.*

## 1.5 References

*There is no such formal reference for this document.*

## 2. Overall Description

### 2.1 Product Perspective

*The problem statement originated from Banking system to automated the manual work of Area Manager. This application is a Mobile Application, new product and independent application.*

### 2.2 Product Functions

- *Login will be assigned to Banking Managers by Area Manager.*
- *Banking Managers will upload the details of every day of No. of new opened and closed accounts, transactions etc.*
- *Area Managers will be able to check the daily record of all branches.*
- *Area Manager will be able to generate daily report containing the record of all branches.*

### 2.3 User Classes and Characteristics

*There are two user classes.*

- Bank Branch Manager*
- Bank Area Manager*

*The requirements or functionalities are different as mentioned in Product Function (2.2).*

### 2.4 Operating Environment

*This application will be for Smartphones containing Android Operating System at least with 4.4 version because Firebase are not supported below versions.*

### 2.5 Design and Implementation Constraints

*The design constraint on this application exist as the demanded application is of Android Application but there's no implementation constraint on this application and can be created in any language.*

### 2.6 User Documentation

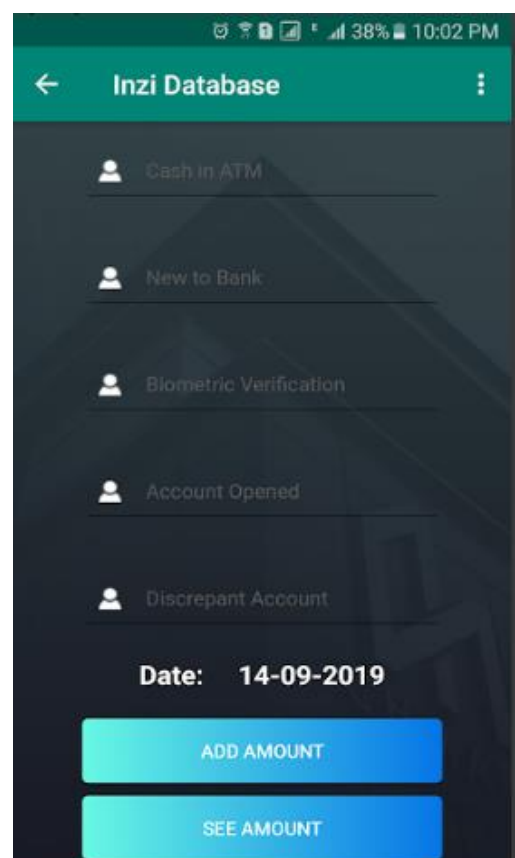
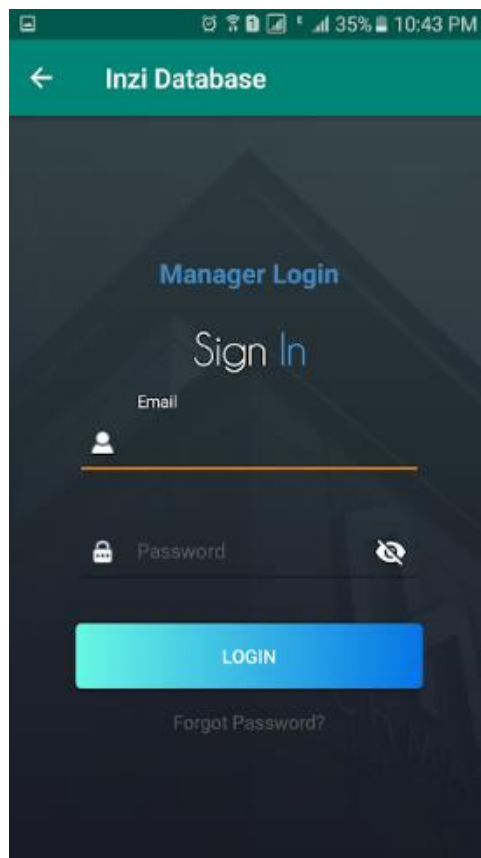
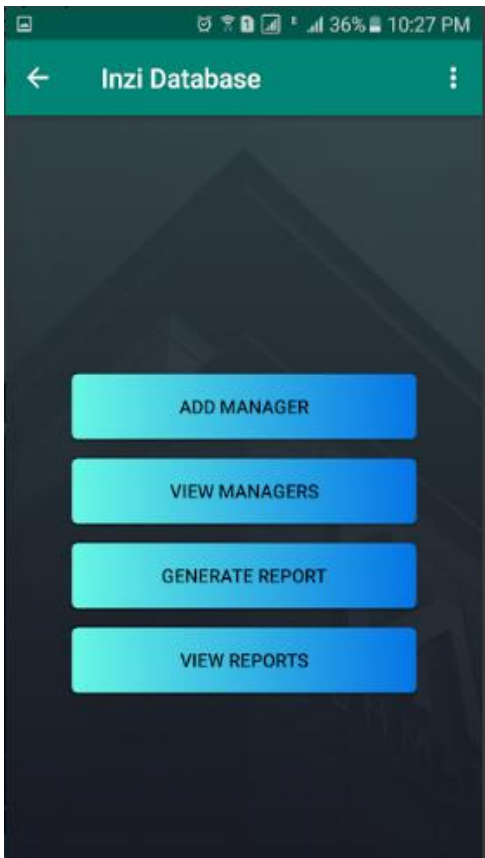
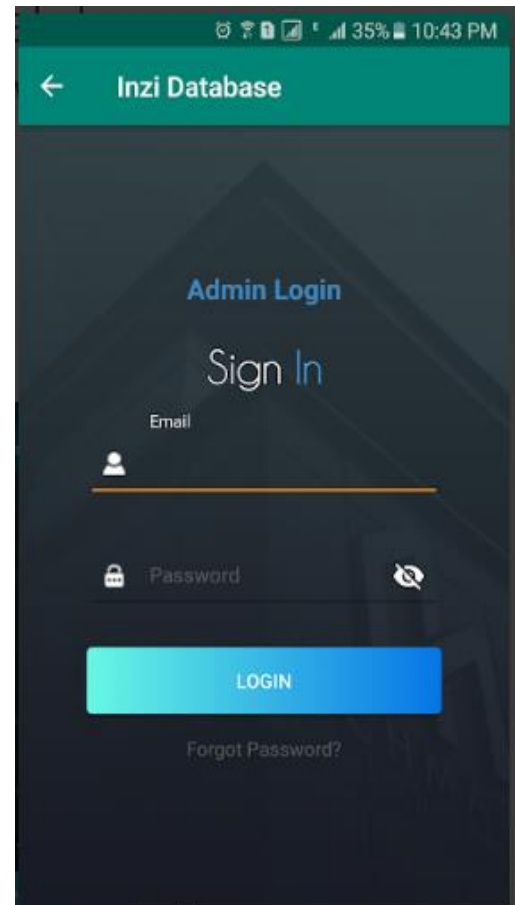
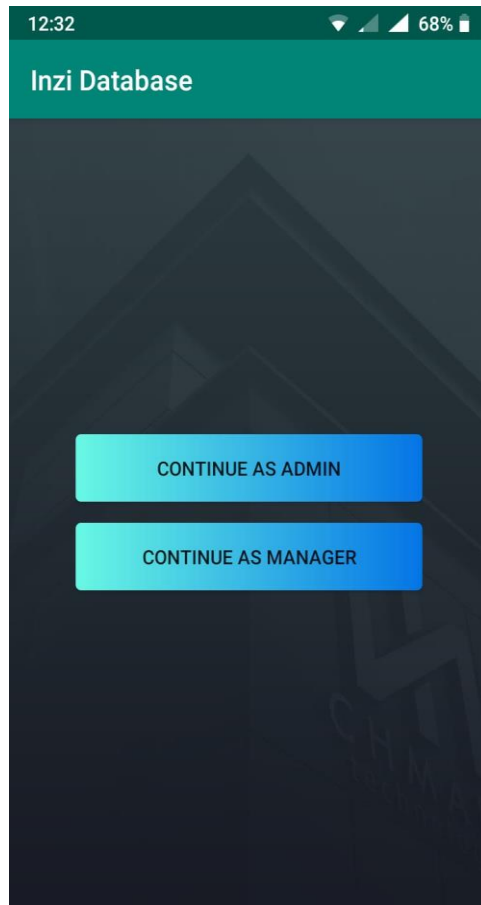
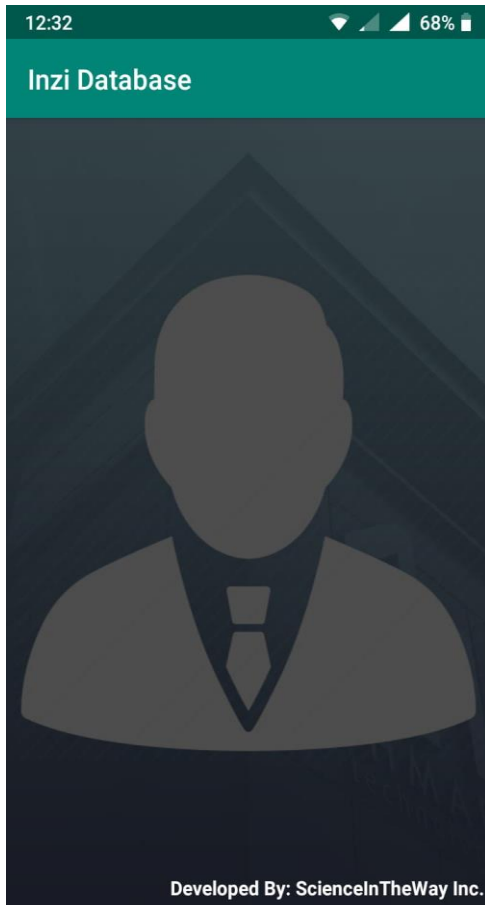
*There no such documentation or help for user understanding as the application is Custom Application.*

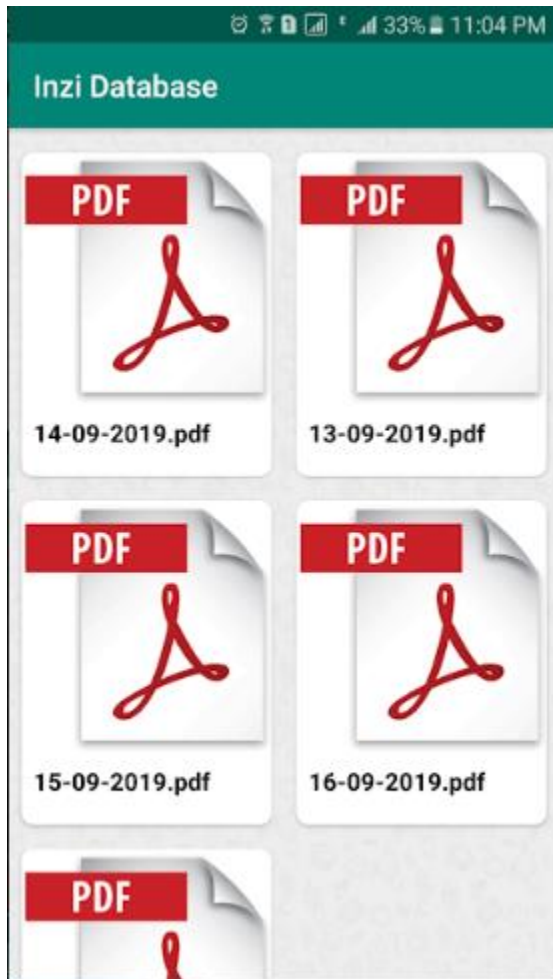
### 2.7 Assumptions and Dependencies

*The report of all branches will be generated assuming that the all branch managers uploaded the record of their respective branch.*

### 3. External Interface Requirements

#### 3.1 User Interfaces





 A screenshot of a mobile application titled "United Bank Limited.". Below the title is a table with the date "Date: 14-09-2019". The table has 9 columns: #, Branch, Opt. Limit, Hand, ATM, NTB, BMV, Opened Acc, and Discrepant Acc. The data rows are as follows:
 

#	Branch	Opt. Limit	Hand	ATM	NTB	BMV	Opened Acc	Discrepant Acc
1	1001	1000	2000	3000	4000	5000	6000	7000
2	1002	8764	78494	78764	87948	7845	784	844
Total	-	9764	80494	81764	91948	12845	6784	7844

 The status bar at the top shows the time as 5:13 and battery level at 10%.

### 3.2 Hardware Interfaces

*No as such hardware interfaces for this application.*

### 3.3 Software Interfaces

*To store the record of all branches we are required to have distributed database and for this purpose Firebase Real time database will be used for this project as it is real time database which has very less response time.*

### 3.4 Communications Interfaces

*This project includes the communication interface to communicate with Gmail to verify the mails for registering Branch Managers.*

## 4. System Features

System features for this applications are in functional hierarchy as the no. of user classes are only two.

*Functional Hierarchy:*

- i) Area Manager must login before use any functionality.
- ii) Area Manager, create the accounts for all the branch managers.
- iii) Branch Managers will enter their credentials and application will authenticate them.
- iv) Branch Managers will upload the details of their respective branches.
- v) Area Manager can view the records.
- vi) Area managers can generate the report of all the branches.

### 4.1 Area Manager Login

#### 4.1.1 Description and Priority

*Area Managers should login before performing any functionality.*

#### 4.1.2 Stimulus/Response Sequences

*Application will check the credentials of Area Manager to authenticate him.*

#### 4.1.3 Functional Requirements

REQ-1: Area Manager must have interface to Login.

REQ-2: Application must authenticate Area Manager's credentials from the database and respond his with result message.

### 4.2 Create Accounts for Branch Managers

#### 4.2.1 Description and Priority

*Area Managers will create accounts for login of all the Branch Managers including adding their complete details.*

#### 4.2.2 Stimulus/Response Sequences

*Application in response will save the details of the Branch Managers in the Database.*

#### 4.2.3 Functional Requirements

REQ-1: AM (Area Manager) must have interface to enter the record of Branch Managers.

REQ-2: Interface must be linked with the database and save the record on clicking the submission button.



### 4.3 Branch Manager Login

#### 4.3.1 Description and Priority

*Branch Managers should login before performing any functionality.*

#### 4.3.2 Stimulus/Response Sequences

*Application will check the credentials of Branch Manager to authenticate him.*

#### 4.3.3 Functional Requirements

REQ-1: BM (Branch Managers) must have interface to Login.

REQ-2: Application must authenticate Branch Manager's credentials from the database and respond his with result message.

### 4.4 Uploading Details of Branch

#### 4.4.1 Description and Priority

*Branch Managers will upload the details of their respective branch daily. The priority is High for this feature as it is the core feature of this application.*

#### 4.4.2 Stimulus/Response Sequences

*In response, the application will store the record in database.*

#### 4.4.3 Functional Requirements

REQ-1: Branch Managers must have interface to enter the details of their respective branch.

REQ-2: Application must upload the details of the branch in the database.

### 4.5 Generate Report

#### 4.5.1 Description and Priority

*Area Manager can view the daily record of all branches and can generate report.*

#### 4.5.2 Stimulus/Response Sequences

*The application will get the details from the database, then generate the report and save the file in Area Manager's smartphone.*

#### 4.5.3 Functional Requirements

REQ-1: Area Manager should be provided with the interface to generate the report.

REQ-2: Application should create the report of daily record of all branches.

REQ-3: Application should save the generated file in Smartphone.

## 5. Other Nonfunctional Requirements

### 5.1 Performance Requirements

*The response time of the software is dependent on the speed of internet as this application is database dependent and all the requirements use database which require internet.*

### 5.2 Safety Requirements

*This application doesn't contain any requirement that can lead to any loss or damage. But in case of Hacking of any Manager's account, Managers can recover their account through email or by contacting Area Manager.*

### 5.3 Security Requirements

*The login credentials are important for this project which must be secured as all the functionalities can only be used after authentication of user.*

### 5.4 Software Quality Attributes

*This application must have some of the quality attributes which are:*

- i) Reliability
- ii) Availability (24/7)
- iii) Usability
- iv) Robustness

### 5.5 Business Rules

*The application must understand the user classes and allow each user to access his own functionalities. The application must entertain only authentic users to ensure the security of data being shared between Manager and Area Manager.*

## 6. Other Requirements

*No as such other requirements which are not mentioned in this SRS.*

## Appendix A: Glossary

BM: Branch Managers

AM: Area Manager

Credentials: User's login details.

SRS: Software Requirement Specification

## Appendix B: To Be Determined List

*All the requirements are decided so there's no such requirement which is "To Be Determine".*