

UPAZILA SERVICE CENTER

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This Report is submitted in Some Achievement of the Necessity for the Degree of Bachelor of Science in Computer Science and Engineering

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APPROVAL

This Project/internship titled “Upazila Service Center”, submitted by **Md. Azizul Islam Rajib ID No: 162-15-7979**, **Md. Shariful Islam ID No: 162-15-7968** and **Sazzad Hossain, ID No: 162-15-7952**, to the Department of Computer Science and Engineering, Daffodil International University has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of B.Sc. in Computer Science and Engineering and approved as to its style and contents. The presentation has been held on 08.07.2020.

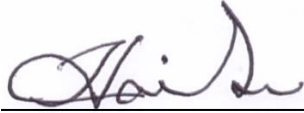
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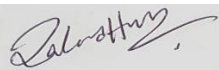
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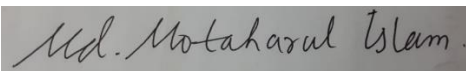
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DECLARATION

We hereby declared that, this project has been done by us under the supervision by of **Mr. Raja Tariqul Hasan Tusher, Senior Lecturer, Department of CSE** Daffodil International University. We also declared that neither this project nor any part of this project has been submitted elsewhere for award of any degree or diploma.

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ABSTRACT

This application is “**ANDROID APPLICATION ON UPAZILA SERVICE CENTER**”. This is the one kind of software, which provides different kinds of Upazila services. The aim of the application is online based communication system between users virtually. In this application user can see the service list and they can receive their services through our Upazila service center application. There will be many services such as agricultural services, health care, youth training center services, emergency call services etc. Also the government help in the Upazila will actually know about it through our apps. They will find out more about community clinic and also will know government district hospital. We may not know what diseases a doctor sits on some days, but with these apps we can easily find out. The government is modernizing the upazilas, sending various help to the poor people but many people do not know about these government help and services. Our aim is that to provide these help and services to them through apps so that they can find out about these assets very easily.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

Our project is based on online Android Application for upazila services .Service center provide different types of services for the people who can take those services. They provide many services such as education, health, agriculture, fire services, subsidy and training for youths.

Upazila Service Center will be a great virtual platform for the upazila center and poor people. Service provider of the upazila can easily announcement about services. They can update their services.

For the people Upazila Service Center will be a useful platform to know service information. Every man can easily create and delete account or skip this .They can see easily about their services.

1.2 Motivation

Many people in the village are now deprived of many services in the upazila. They do not know what services are provided in the upazila. For example, agricultural services, medical services provide subsidy and training for youths from the upazilas but due to lack of proper information they are deprived of these. To get this project done so that they can get these information properly and get themselves started by taking all the services.

1.3 Aims and Objectives

Upazila Service center is a servicing platform created in the virtual space. The objectives of an upazila service center are to modernize the upazila so that the common people are connected with the upazila service center because our government of Bangladesh has undertaken a project to switch Bangladesh into a Digital Bangladesh. For this reason, 4501 information and service centers are established at union parishad which works for connected citizens at the grass root level. So our aim is that, we want to connect people in a modern way as if they get each and every information through our application easily.

1.3.1 Aims of the Project

- Online information platform
- Make easy to use information technology
- Spread information with everyone through this application
- Try to do something new with technology
- Try to engaged rural people in the modern era

1.3.2 Objective of the Project

I want to modernize the upazila. So that they can deliver their services to people easily and smartly, the general public may be aware of these services. That's why I want to bring them closer through an Android Apps.

Specific option for the service provider and poor people:

Service provider:-

- Create their service easily
- File attachment
- Update service information

Poor people:-

- Can create, update account
- Can easily access without creating account
- Can view service center location
- Can view service center information
- Can share with others
- About service information
- Write their comments
- Can give feedback

1.4 Feasibility Study

Feasibility is the experiment to the process. Feasibility assistance to decide how much it's visible going via to the project . It exercise exercises to the process and telling how much to amplify the system or not.

Feasibility has four solid dimensions:

- Technology
- Finance
- Time and
- Resource

The Feasibility of the system “Upazila Service Center” is prospected with the aid to that four dimensions.

Technology: The application development of Upazila service center is purposed with simplest and simple obtainable technology. This application is basis on android just like mobile interface, That is very simple to usages. This system developed by Programming language Java, MySQL for Database and XML for design.

Finance: This dimension measurement the application in honor to finance otherwise we say capital this. This dimension cheque in case it's durable to expend the necessary quantity on the process or it will be a misuse. There is no difficulty of fund in this program because it conduct straight technology, which is very simple to setup. This process is been exhibited for a standalone computer so, for this system hardware necessity is very low. For this system we necessity to be exhibited and install We demand very simple obtainable technologies and very elementary hardware and all these necessity doesn't charge lot.

Time: This exceptional dimension measures the systems value with dignity to the period , which is one of the most significant cause to be considered. In this project time factor is very significant this system is predetermined to be installed in just time. This system is not very large and therefore can be completed within the time period it clam

approx. Period is a ultimate measure to be argued so we can speak that this application can be manifested within the necessary period.

Resources: This dimension receive into calculation the resources necessary to manifested the application. For this exceptional application the resources necessary are fully professed which can be completed, the fund necessary for this application are basis hardware, an operation system which is consistent. With the aid of this entire dimension we can calculate the feasibility of the application and can determined whether to go forward with the project or not. By take in calculation the dimension and their preface in this particular system we can say that this system is feasible from all these dimension viewpoint and it is durable to go by the project.

1.5 Expected Outcomes

This project will be able to provide

- People can contact the upazila through this app
- People will be able to know about subsidy and apply for it
- Service information about upazila
- Message and notification system
- People can take their services very easily if they use this app
- Accessible in rural area

1.6 Project Layout

Report layout describes a sort brief of all the section. A sort brief of all chapters is given down:

- **Chapter 1:** Describes an instruction of the upazila service center, Motivation, Aims and Objectives, Feasibility study, Awaited result and the Report arrangement.
- **Chapter 2:** Described the background, the related works, Comparatives Studies and Challenges of the upazila service center.
- **Chapter 3:** Describes the Android Studio, System requirements, XAMPP, Subline Text.

- **Chapter 4:** Describe the block diagram, Description of application, Use case modeling and statement.
- **Chapter 5:** Detail the Implementation of Front-end design, Back-end design, Data table name, Data type architecture, MySQL database table structure, testing methodology, Functional testing, Unit test, Compatibility test and result.
- **Chapter 6:** Described the conclusion where the goal, limitation and future scope have been described.

CHAPTER 2

BACKGROUND

2.1 Introduction

There are many government website within Bangladesh which is approved by the government of Bangladesh. There is a website allotted for each upazila and every union council. So that the public can access the services through these website online. There are different association also which are tempting to experiment and manifest the upazila related android apps in Bangladesh, but these apps are not perfect, such as – BD 64 District Information, Galachipa upazila etc. But sadly, most websites today are left blank for maintenance. These are not updated regularly. So the general public is not getting the online based service properly.

So our job is to turn the upazila into a modern upazila. So that the people of that upazila can get different information through our apps. However, some query have been raised for this project-

- How to look for the idea of upazila service center?
- How to make it too much efficient mostly in the behalf of Bangladesh?
- How to make it effectively running in the low bandwidth?
- How can the distance people be profit using this upazila service center?

In this case an comprehensive project has been done in the area of upazila to contribute in the behalf of Bangladesh.

2.2 Related Works

In this part we uttered the current project and connected job evaluation this field.

Govt. website: Govt. web service is a free web service developed by a2i, bcc, doict, and basis for peoples that aim was reached the information and services to the people in this easiest way. There is a government website for each upazila. From is website peoples are known about that upazila such as upazila chairmen information, upazila hospital and clinic etc. The primary purpose of this website was sharing information about each upazila into the people.

64 district information: It is also an informatics application where you will get important information about all district. All the information of Bangladesh District like history, famous place, traveling places, famous person, and administration can be found in this application. This application released on Sep 16, 2016.

Bangladesh in pocket: All the information in a pocket, at a glance you know every place information. Every Bangladeshi knows Bangladesh has 64 districts and 8 division.64 districts have a hug history of Bangladesh. This application has to discuss about 64 districts and 8 divisions. This application is helpful of college or university and also geographic student because this application contain a total history of Bangladesh and geographic map. It does also help any kind of competitive exam as like BCS, job, and admission exam. This application contains 64 district map location and information. This application provides lots of information about traveling in beautiful Bangladesh. This application released on May 25, 2019.

2.3 Comparative studies

Upazila service center is corresponding with others websites and android applications. Our application is similar with log in and log off, sign in and sign off, showing services, updating notice. Upazila service center has some unique features like noticeboard, news portal, and emergency call service, details about upazila, information about govt. office,

Fire service information, and hospital and clinic information. We believe that our system will be helpful for rural people and also help the people how stay outside of his/her upazila in this modern era. It can be very helpful to our country for communicating with people in a modern ways.

2.4 Scope of the problem

As we consider that upazila service center will be fastest and easiest android base mobile application for people but possibility of the problem for peoples who use iOS and Microsoft operated mobile phones. So they will not be able to use this application. For being internet based application a class of peoples is also not be able to use this application. User must need internet connection to use this application. Responses to user's oversight and unwanted condition have been attention care of to confirm that the system handles except stopping. Accurate oversight stirring codes are casting with the codes.

2.5 Challenge

With fresh stage, variation introduction and amplifying user's want, observing an efficient communal learning to medium the internet is not simple.

2.6 What we thinking

The first challenge was faced after submitting the first documentation of this project with our ideas about how we want to create an upazila service center. The most critical part of this system was the collecting information that we will use for our system. One important think was our application will be android base and actually developed for rural people and how live outside of his/her upazila but maximum rural people not use android phone though they use android phone but not understand internet but we need internet to run our application. It was most thinking issue but with the advancement of technology in Bangladesh, smartphone and internet have reached the hands of many people today. So with all the information and research our group members start working which result in the creation of this application.

2.7 Summary

In this chapter various connected works of upazila service center have been portrayed. Also described many challenges and feature about our application. From the above content it is clear that many organization and Bangladesh government are trying to develop upazila related website and application to reach their services and information to the people. Though people get their service easiest way without going to the upazila.

CHAPTER 3

REQUIRMENT SPECIFICATION

3.1 Android Studio

The official integrated development environment (IDE) for android working framework is the android studio, built on Jet Brains IntelliJ IDEA software and designed specifically for android development. It is accessible for download on macOS, Linux, windows based working frameworks. Substitution of the local android application advancement is the Eclipse Android Development tools (ADT) as essential IDE.

At the Google I/O conference Android Studio was published on May 16, 2013. It was in initial entrance see establish opening from variant 0.1 in May 2013,at that point entered beta stage starting from adjustment 0.8 which was released in June 2014.In December 2014,the main static form was released, beginning from rendition 1.0. The present stable rendition is 3.0 discharged in October 2017.

ADT (Android Development Tools) is the product used to create android applications. It fundamentally encases Eclipse IDE, which is a multi-dialect integrated advancement condition (IDE) containing a basis workspace and an expansible module framework for tweaking the planet. The most recent rendition accompanies ADT module preinstalled and packaged to the IDE. This is the manner by which the IDE looks like with the essential components checked.

Application programming interface (API) determines how some product segments ought to communicate with each other. In most of the cases an API is a library that as a rule incorporates particular for schedules, information structures, question classes, and factors.

Google APIs can be downloaded from Google Code, Google's website for engineer instruments, APIs and specialized assets. The Google Data API enables software engineers to make applications that read and compose information from Google administrations. Right now, these incorporate Search google Earth, google Calender, Picasa Web Albums, Google Spreadsheets, Google Analytics, and Blogger.

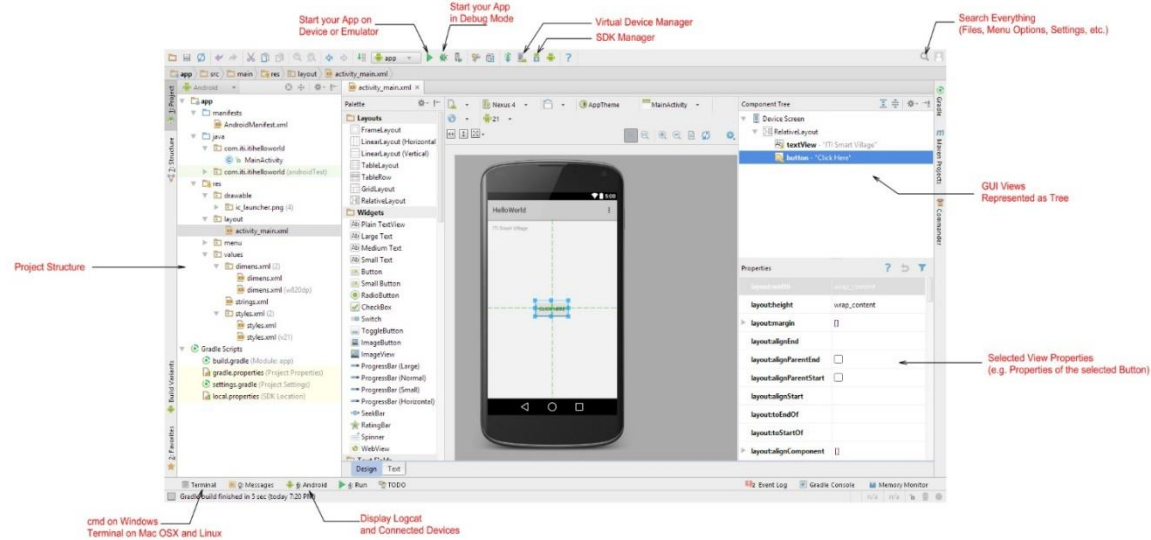


Figure 3.1: Interface of Android Studio.

SDK (Software Development Kit or "Devkit") is normally an arrangement of programming improvement apparatuses that takes into account the production of uses for a specific programming bundle, programming structure, equipment stage, PC framework, computer game comfort, working framework, or comparable advancement stage.

It might be something as straight forward as an application programming interface (API) as a few records to interface to a specific programming dialect or incorporate modern equipment to speak with a specific inserted framework. Basic instruments incorporate investigating helps and different utilities frequently displayed in a coordinated advancement condition (IDE).

In the most recent variant of ADT, the android SDK includes to the IDE consequently when you unfasten and stack the IDE.

SDK Manager empowers us to download Google APIs and utilize them in our code.

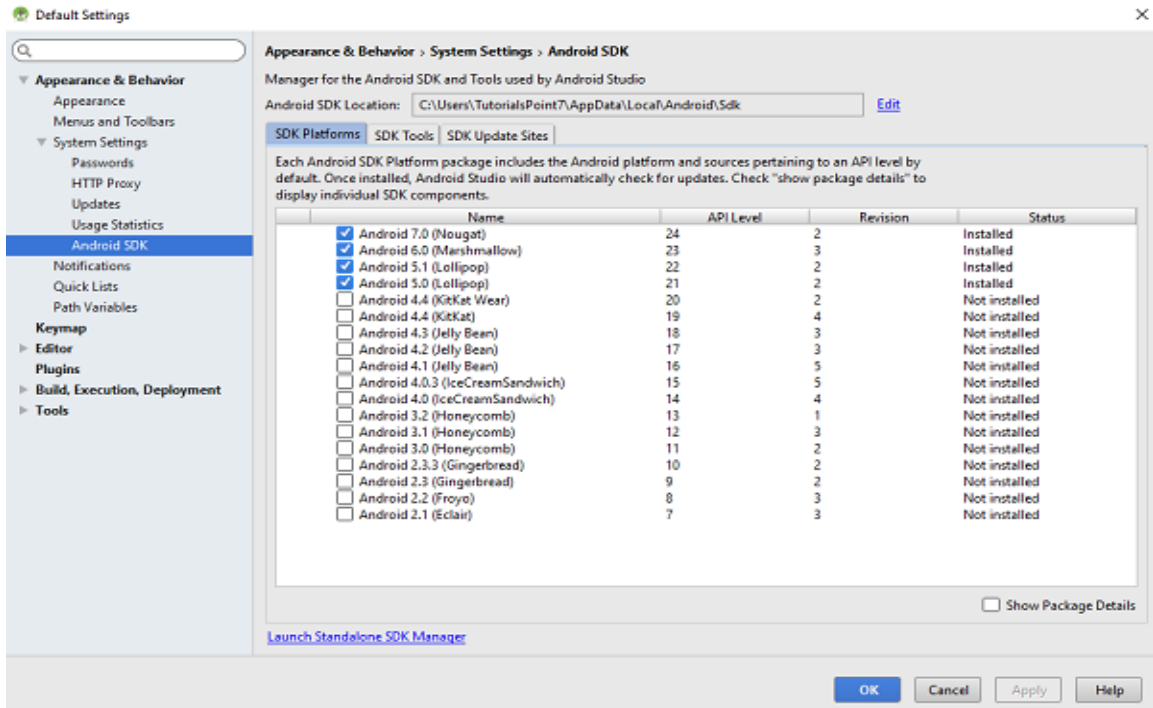


Figure 3.2: Android Studio SDK Manager

3.2 System Requirements

Table 3.1: Version 3.x

Criterion	Description
OS version	Microsoft® Windows® 7/8/10 (32-bit or 64-bit) Mac® OS X® 10.10 (Yosemite) or higher, up to 10.13 (macOS) High Sierra GNOME or KDE desktop Linux (64 bit capable of running 32-bit application)(GNU C Library (glibc) 2.19+)
RAM	3 GB RAM minimum, 8 GB RAM recommended; plus 1 GB for the Android Emulator
Disk space	2 GB of available disk space minimum, 4 GB recommended (500 MB for IDLE + 1.5 GB for Android SDK and emulator system image)
Java version	Java development Kit (JDK) 8
Screen resolution	1280*800 minimum screen resolution

Table 3.2: Version 2.x

Criterion	Description
OS version	Windows 7 or later Mac OS X 10.9.5 or later GNOME or KDE desktop Linux
RAM	8 GB RAM recommended; plus 1 GB for the Android Emulator
Disk space	500 MB disk space for Android Studio, at least 1.5 GB for Android SDK, emulator system image, and caches
Java version	Java Development Kit (JDK) 8
Screen resolution	1280*800 minimum screen resolutions.

Table 3.3: Version 1.x

Criterion	Description
OS version	Mac OS X 10.8.5 or later GNOME, KDE or Unity desktop on Ubuntu or Fedora or GNU/Linux debian
RAM	3 GB RAM minimum, 4 GB RAM recommended

Disk space	500 MB disk space
-------------------	-------------------

Space for Android SDK	At least 1 GB for Android SDK, emulator system images and caches
JDK version	Java Development Kit (JDK) 7 or higher
Screen resolution	1280*800 minimum screen resolution

3.3 XAMPP

XAMPP is an open-source web server bundle that deals with different stages. It is really an acronym with X signifying "cross" stage, A for Apache HTTP server, M for MySQL, P for PHP, and P for Perl. XAMPP was intended to help webpage developers, programmers, software engineers, and planners check and audit their work utilizing their PCs even without association with the web. What's more, since XAMPP is planned as a cross-stage server bundle, it is accessible for an assortment of working frameworks and stages like Microsoft Windows, Mac OS X, Linux, and Solaris.

3.4 Usage

WAMP webserver stack can be deployed as a result of the use of the XAMPP. Then some general bundled applications that can be easily installed were provided by Bitnajim.

Officially, XAMPP's designers intended it for use only as a development tool, to allow website designers and programmers to test their work on their own computers without any access to the Internet. A particular tools are provided to protect password, that is the important part of the package. XAMPP also provides support for building and manipulating database in Maria DB and SQLite.

3.5 Sublime Text

Sublime Text is an monopolistic cross-stage production code editor with a Python application programming interface (API). It natively underpins numerous programming idioms and increment idioms, and capacity can be accessory by clients with modules, ordinarily community combined and guarded up beneath free-programming licenses.

3.6 Features

The following is a list of feature of Sublime Text:

- “Goto Anything” speed route to records, symbols, or lines.
- “Command palette” utilizes multipurpose coordinating for rapid comfort summon of self-assertive change.
- Simultaneous defecting: at the same time roll out the same intuitive benefits to much choose territories.
- Project-particular inclinations.
- Extensive adaptability by means of JSON setting documents, including venture particular and stage particular settings.
- Cross-stage (Windows, macOS, and Linux) and Supportive Plugins for cross stage.
- Compatible with numerous idiom sentence formation from TextMate.
- Auto save, macros and repeat the last action.

CHAPTER 4

PROPOSED MODEL AND DESIGN

4.1 Block Diagram

The block diagram provides a top level listing of and basic interaction of applications. Here is the block diagram. The figure is given bellow:

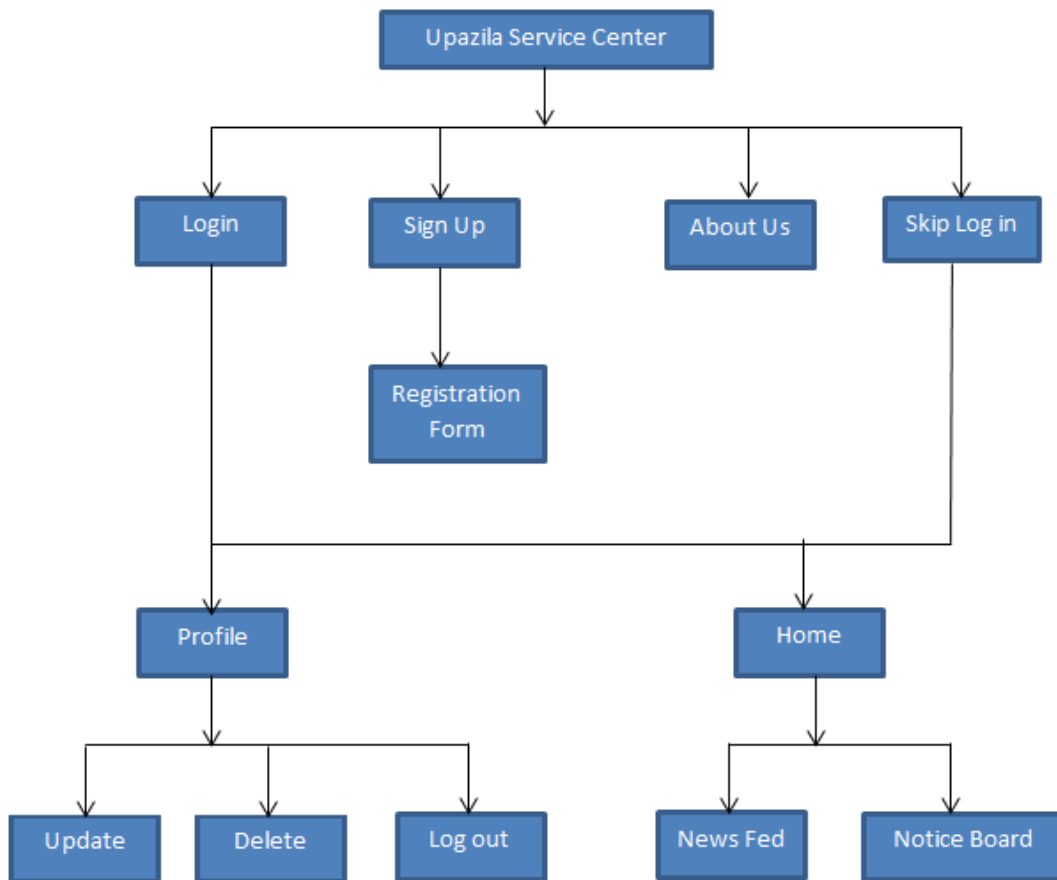


Figure 4.1: Block diagram

4.2 Description of Application

Log In: Logging in is the process by which an individual user access to our application by identifying and authenticating them.

Skip Log In: It's an open source platform. If anyone want inter the application without login we will give them access for it. Because it's a non-profitable informational application.

Sign Up: Sign up for an account and give some information about user. This will be stored in database.

Profile: A short description of user's. They can update and delete their profile.

Upazila Service Center: Upazila Service Center will be a great virtual platform for the upazila center and people. Service provider of the upazila can easily announcement about services. They can update their services.

Notice Board: Peoples can get any update or notice about their upazila.

Home page: There will be various information about upazila services and it is the main page for our application.

News feed: various services which will be in home page.

4.3 Use Case Modeling and Description

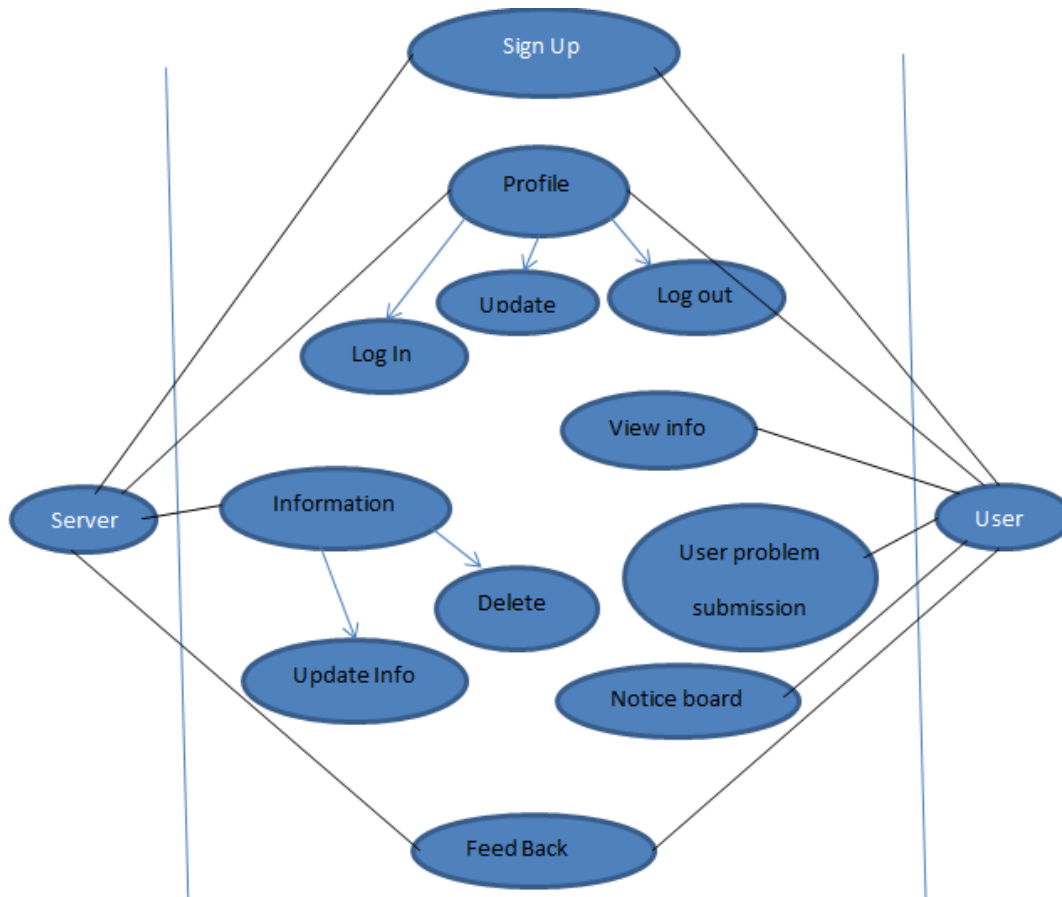


Figure 4.2: Use Case Diagram

Table 4.1 Use Case Analysis

<p>Use Case: Sign Up</p> <p>Actors: User</p> <p>Type: Primary</p> <p>Description: If user wants to access this application, they must provide information to sign up</p> <p>Uses: Log in</p> <p>Extended By: None</p> <p>Extends: None</p>
<p>Use Case: Log In</p> <p>Actors: User</p> <p>Type: Primary</p> <p>Description: If user wants to log in this application they must inter valid information to log in.</p> <p>Uses: Profile</p> <p>Extended By: None</p> <p>Extends: None</p>
<p>Use Case: Noticeboard</p> <p>Actors: User</p>

<p>Type: Primary</p> <p>Description: Easiest way to find out any information notice</p> <p>Uses: User</p> <p>Extended By: None</p> <p>Extends: None</p>
<p>Use Case: Information</p> <p>Actors: Authority can publish information</p> <p>Type: Primary</p> <p>Description: Authority update information everyday</p> <p>Uses: User gets information</p> <p>Extended By: None</p> <p>Extends: Update Information</p>

4.4 Interaction Design and UX

An interaction design is a way that discuss between system and user. To understand the user problem or for knowing user requirement we use interaction design. Not only finding problem but also I find this problem solution. It also focuses that user experience to use this application. In our application admin can add notice. User can see all notice. All the home contents are user friendly.

For UX we have tested it by twelve peoples. In those people ten are said that this application is very helpful and user friendly.

So we can say that this application is user friendly.

4.5 Implementation Requirements

It's an android base project. For building this application we needed a –

- Firstly I need a well-managed computer
- Android Studio where I write code in java
- For store data I used firebase database

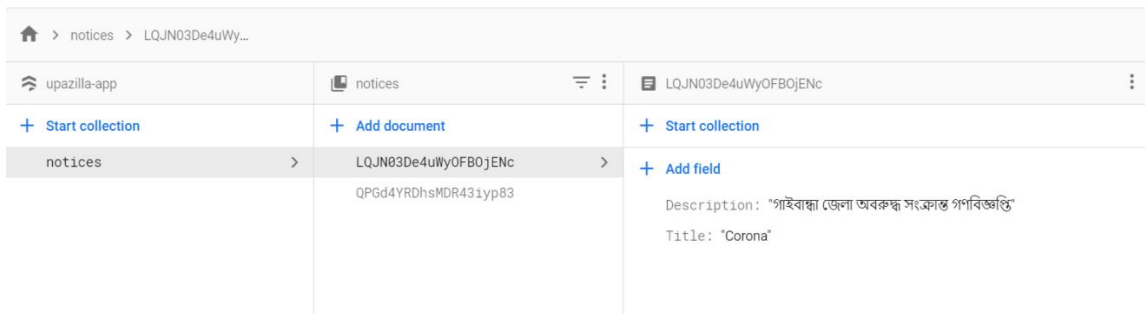
Before run the project I need to compile the project and then run my application for excess everywhere.

CHAPTER 5

IMPLEMENTATION AND TESTING

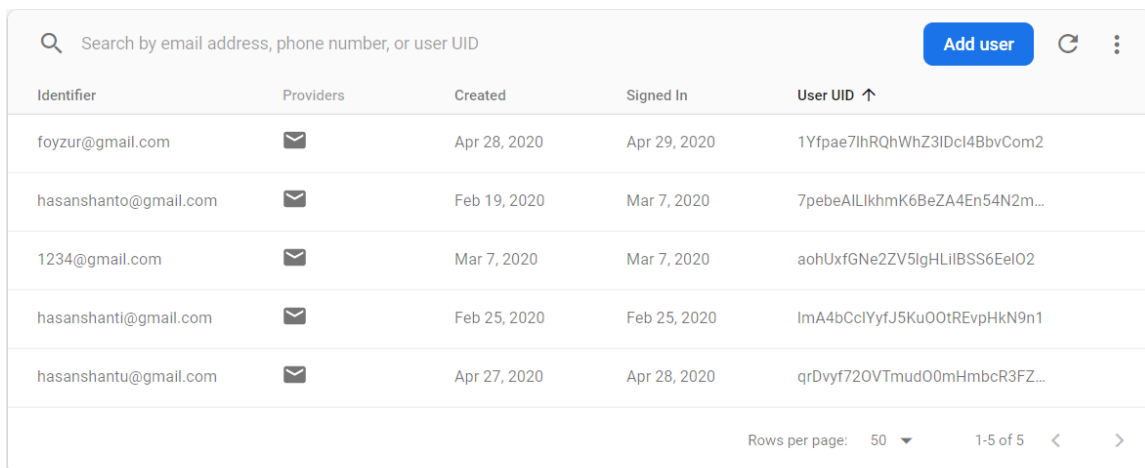
5.1 Implementation of Database

Firstly we want to say that our application upazila service center is an informational base application system. There is a few works within database. We used firebase database for our application. Firebase provides a real-time database and back-end as a serving.. We can edit, delete and insert data in our database.



Collection	Document ID	Content
notices	LQJN03De4uWy0FB0jENc	Description: "গাইবান্ধা জেলা অবরুদ্ধ সংস্কৃত গণবিজ্ঞপ্তি" Title: "Corona"

Figure 5.1: Notices database table



Identifier	Providers	Created	Signed In	User UID ↑
foyzur@gmail.com	✉	Apr 28, 2020	Apr 29, 2020	1Yfpae7lhrQhWhZ3IDcl4BbvCom2
hasanshanto@gmail.com	✉	Feb 19, 2020	Mar 7, 2020	7pebeAILIkhmK6BeZA4En54N2m...
1234@gmail.com	✉	Mar 7, 2020	Mar 7, 2020	aohUxfGNe2ZV5IgHLiIBSS6EelO2
hasanshanti@gmail.com	✉	Feb 25, 2020	Feb 25, 2020	lmA4bCcIYyfJ5Ku00tREvpHkN9n1
hasanshantu@gmail.com	✉	Apr 27, 2020	Apr 28, 2020	qrDvyf720VTmud00mHmbcR3FZ...

Figure 5.2: Login database table

5.2 Implementation of Front-end Design

Front-end design means which design that we can see with our eyes. The screenshots below show the main project view.

User Registration

User Name :

Password :

Email :

Phone Number :

Figure 5.3: User Registration form

This is user registration form for upazila service center. If anyone has no account or wants to create account, he or she needs to fill up this registration form. Here email option is optional. If anyone has email then he or she can fill up email option. Otherwise it will be blank and then enter submit button.

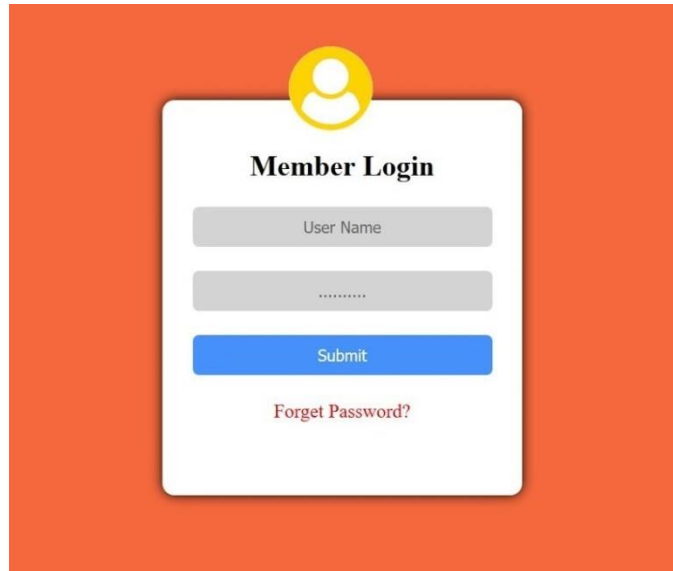


Figure 5.4: User login page

This is login page in upazila service center. Firstly everyone has to login first then they entered in the main dashboard. This system will be controlled by admin. Here also given an option of forget password. If anyone forgets their password then they can use forget password option and by using this they can reset their password.

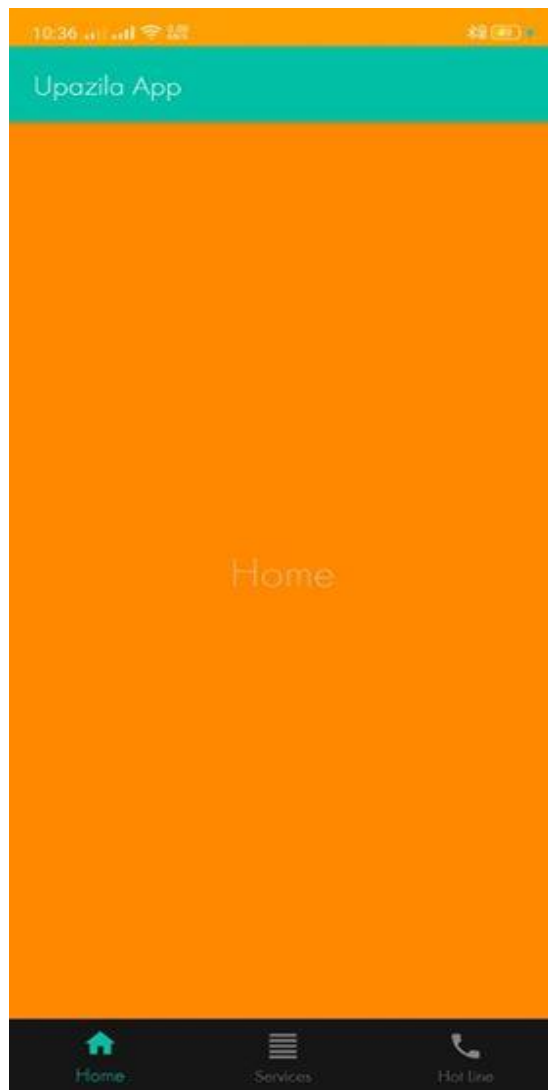


Figure 5.5: Home page

This is main home page for my apps. Here will be a notice board for user. Every information/notice of upazila will be updated every day into the notice board. User can see it easily.



Figure 5.6: Services

There are eight types of services which you can see. If you click any one of them you can see detail about those services. In future we will add other services. We get these information's from upazila office and try to our best for develop a standard application. This through people can get their essential information easily.



Figure 5.7: Hot line services

There is a hot line services also. We will add here more hot line number in future. People can also benefit from there. This feature directly connected with cellphone.

5.3 Testing Implementation

Table 5.1: Testing

Test case	Test input	Expected outcome	Obtained outcome	Pass / Fail	Tested date
1. Login	Various browser use for login	Login successfully	Successful login	Pass	01-5-20
2. Registration	Fill up registration form	Fill up successfully	Successfully Registration	Pass	01-5-20
3. Add notice	Description	added successfully	Successfully added notice	Pass	02-5-20
4. Update user information	User information	User information updated successfully	Successfully updated user information	Pass	02-5-20
5. Update Information	Input information	information save successfully	Successfully add information	Pass	07-5-
6. Internet connection	Connect through internet	Connect internet properly	Successfully connected	Pass	07-5-20

5.3.1 Testing Methodology

In general, software testing is used to find out system errors. A software test can be finding out codes, design and execution errors of the whole system. Testing is essential to improve the quality of the system.

5.3.2 Functional Testing

In functional testing tester has to validate the application to see that all specified requirements of the user's whatever we have said in supplemental restraint system have been incorporated or not.

There are two categories of functional testing:

- Positive functional testing: testing the systems's operations with potent input and also confirming that the outputs are accurate.
- Negative functional testing: IT environ behavior system functionality using a abbreviation of void inputs several casual operating conditions and by some other "out-of-bounds" continuity.

5.3.3 Unit Test

Unit testing is used for detailed design and implementation of a project .Unit testing is used to detect project errors.

5.3.4 Compatibility Test

Compatibility Testing, portion of software non-functional experiment, is experiment directed on the application to measure the application's with the calculating circumstance. Software balance testing can be much appropriately mentioned to as user perception environment. This project is tested on different types of android mobile to ensure the following-

Table 5.2: Compatibility Test Result

Android Device Name	Screen size	Test	Result
Redmi prime 5A	5.5 inch	Yes	Okay
Realme A2 Lite	5.84 inch	Yes	Okay
Xiaomi Redmi Note 7	6.3 inch	Yes	Okay
Samsung s8	5.8 inch	Yes	Okay

Huawei Nova 3i	6.2 inch	Yes	Okay
Huawei P9 Lite	5.2 inch	Yes	Okay

CHAPTER 6

CONCLUSION AND FUTURE SCOPE

6.1 Conclusion

“Upazila Service Center” is a user friendly app for the user/peoples. User can know various kinds of upazila services they can be benefited take those services. In case of emergency user can contact the hotline to get better information. This platform will be better to get medical, agriculture, informational, tourism and land services.

6.2 Goal

The main goal is to create an android application where we can reach them all kind of information and services about Upazila. To build a good community and good relationship between upazila and peoples , that is the most important goal of this project.

6.3 Limitaion

- Users can not use this application in offline.
- Users can not comment in this application.
- Users will not be able to share files

6.4 Scope for future development

- Work for gorgeous user interface
- Develop apps security
- More function will be added
- User comment and rating section will be added
- We will add feedback system

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<p>CHAPTER 1 INTRODUCTION 1.1 Introduction Our project is based on online Android Application for upazila services .Service center provide different types of services for the people who can take those services. They provide many services such as education, health, agriculture, fire services, subsidy and training for youths, Upazila Service Center will be a great virtual platform for the upazila center and poor people. Service provider of the upazila can easily announcement about services, They can update their services, For the people Upazila Service Center will be a useful platform to know service information, Every man can easily create and delete account or skip this .They can see easily about their services, 1.2 Motivation Many people in the village are now deprived of many services in the upazila, They do not know what services are provided in the upazila, For example, agricultural services, medical services provide subsidy and training for youths from the upazilas but due to lack of proper information they are deprived of these, To get this project done so that they can get these information properly and get themselves started by taking all the services, 1.3 Aims and Objectives Upazila Service center is a servicing platform created in the virtual space, The objectives of an upazila service center are to modernize the upazila so that the common people are connected with the upazila service center because our government of Bangladesh has undertaken a project to switch Bangladesh into a Digital Bangladesh, For this reason, 4501 information and service centers are established at union parishad which works for connected citizens at the grass root level. So our aim is that, we want to connect people in a modern way as if they get each and every information through our application easily. 1.3.1 Aims of the Project ? Online information platform ? Make easy to use information technology ? Spread information with everyone through this application ? Try to do something new with technology ? Try to engaged rural</p>	

people in the modern era 1.3.2 Objective of the Project I want to modernize the upazila. So that they can deliver their services to people easily and smartly, the general public may be aware of these services. That's why I want to bring them closer through an Android Apps. Specific option for the service provider and poor people: Service provider:- ? Create their service easily ? File attachment ? Update service information Poor people:- ? Can create, update account ? Can easily access without creating account ? Can view service center location ? Can view service center information ? Can share with others ? About service information ? Write their comments ? Can give feedback 1.4 Feasibility Study Feasibility is the experiment to the process, Feasibility assistance to decide how much it's visible going via to the project . It exercise exercises to the process and telling how much to amplify the system or not, Feasibility has four solid dimensions: ? Technology ? Finance ? Time and ? Resource The Feasibility of the system "Upazila Service Center" is prospected with the aid to that four dimensions. Technology: The application development of Upazila service center is purposed with simplest and simple obtainable technology. This application is basis on android just like mobile interface, That is very simple to usages, This system developed by Programming language Java, MySQL for Database and XML for design, Finance: This dimension measurement the application in honor to finance otherwise we say capital this. This dimension cheque in case it's durable to expend the necessary quantity on the process or it will be a misuse. There is no difficulty of fund in this program because it conduct straight technology, which is very simple to setup. This process is been exhibited for a standalone computer so, for this system hardware necessity is very low. For this system we necessity to be exhibited and install We demand very simple obtainable technologies and very elementary hardware and all these necessity doesn't charge lot. Time: This exceptional dimension measures the systems value with dignity to the period , which is one of the most significant cause to be considered. In this project time factor is very significant this system is predetermined to be installed in just time. This system is not very large and therefore can be completed within the time period it dam approx. Period is a ultimate measure to be argued so we can speak that this application can be manifested within the necessary period, Resources: This dimension receive into calculation the resources necessary to manifested the application. For this exceptional application the resources necessary are fully professed which can be completed, the fund necessary for this application are basis hardware, an operation system which is consistent. With the aid of this entire dimension we can calculate the feasibility of the application and can determined whether to go forward with the project or not, By take in calculation the dimension and their preface in this particular system we can say that this system is feasible from all these dimension viewpoint and it is durable to go by the project. 1.5 Expected Outcomes This project will be able to provide ? People can contact the upazila through this app ? People will be able to know about subsidy and apply for it ? Service information about upazila ? Message and notification system ? People can take their services very easily if they use this app ? Accessible in rural area 1.6 Project Layout Report layout describes a sort brief of all the section. A sort brief of all chapters is given down: ? Chapter 1: Describes an instruction of the upazila service center, Motivation, Aims and Objectives, Feasibility study, Awaited result and the Report arrangement. ? Chapter 2: Described the background, the related works, Comparatives Studies and Challenges of the upazila service center. ? Chapter 3: Describes the Android Studio, System requirements, XAMPP, Subline Text, ? Chapter 4: Describe the block diagram, Description of application, Use case modeling and statement. ? Chapter 5: Detail the Implementation of Front-end design, Back end design, Data table name, Data type architecture, MySQL database table structure, testing methodology, Functional testing, Unit

test, Compatibility test and result. ? Chapter 6: Described the conclusion where the goal, limitation and future scope have been described. [CHAPTER 2 BACKGROUND 2.1 Introduction](#) There are many government website within Bangladesh which is approved by the government of Bangladesh. There is a website allotted for each upazila and every union council. So that the public can access the services through these website online. There are different association also which are tempting to experiment and manifest the upazila related android apps in Bangladesh, but these apps are not perfect, such as BD 64 District Information, Galachipa upazila etc. But sadly, most websites today are left blank for maintenance. These are not updated regularly. So the general public is not getting the online based service properly. So our job is to turn the upazila into a modern upazila. So that the people of that upazila can get different information through our apps. However, some query have been raised for this project- of upazila service center? it too much efficient mostly in the behalf of Bangladesh? effectively running in the low bandwidth? the distance people be profit using this upazila service center? [In this case an comprehensive project has been done in the area of upazila to contribute in the behalf of Bangladesh.](#) 2.2 Related Works In this part we uttered the current project and connected job evaluation this field. Govt, website: Govt, web service is a free web service developed by a2i, bcc, doict, and basis for peoples that aim was reached the information and services to the people in this easiest way. There is a government website for each upazila. From its website peoples are known about that upazila such as upazila chairmen information, upazila hospital and clinic etc. The primary purpose of this website was sharing information about each upazila into the people. 64 district information: It is also an informatics application where you will get important information about all district. All the information of Bangladesh District like history, famous place, traveling places, famous person, and administration can be found in this application. This application released on Sep 16, 2016, Bangladesh in pocket: All the information in a pocket, at a glance you know every place information. Every Bangladeshi knows Bangladesh has 64 districts and 8 division, 64 districts have a hug history of Bangladesh. This application has to discuss about 64 districts and 8 divisions. This application is helpful of college or university and also geographic student because this application contain a total history of Bangladesh and geographic map. It does also help any kind of competitive exam as like BCS, job, and admission exam. This application contains 64 district map location and information. This application provides lots of information about traveling in beautiful Bangladesh. This application released on May 25, 2019. 2.3 Comparative studies Upazila service center is corresponding with others websites and android applications. Our application is similar with log in and log off, sign in and sign off, showing services, updating notice. Upazila service center has some unique features like noticeboard, news portal, and emergency call service, details about upazila, information about govt. office, Fire service information, and hospital and clinic information. We believe that our system will be helpful for rural people and also help the people how stay outside of his/her upazila in this modern era. It can be very helpful to our country for communicating with people in a modern ways. 2.4 Scope of the problem As we consider that upazila service center will be fastest and easiest android base mobile application for people but possibility of the problem for peoples who use IOS and Microsoft operated mobile phones. So they will not be able to use this application. For being internet based application a class of peoples is also not be able to use this application. User must need internet connection to use this application. Responses to user's oversight and unwanted condition have been attention care of to confirm that the system handles except stopping. Accurate oversight stirring codes are casting with the codes. 2.5 Challenge With fresh stage, variation introduction and

amplifying user's want, observing an efficient communal learning to medium the internet is not simple. 2.6 What we thinking The first challenge was faced after submitting the first documentation of this project with our ideas about how we want to create an upazila service center. The most critical part of this system was the collecting information that we will use for our system. One important think was our application will be android base and actually developed for rural people and how live outside of his/her upazila but maximum rural people not use android phone though they use android phone but not understand internet but we need internet to run our application. It was most thinking issue but with the advancement of technology in Bangladesh, smartphone and internet have reached the hands of many people today. So with all the information and research our group members start working which result in the creation of this application. 2.7 Summary In this chapter various connected works of upazila service center have been portrayed. Also described many challenges and feature about our application. From the above content it is clear that many organization and Bangladesh government are trying to develop upazila related website and application to reach their services and information to the people. Though people get their service easiest way without going to the upazila, CHAPTER 3 REQUIREMENT SPECIFICATION 3.1 Android Studio The official integrated development environment (IDE) for android working framework is the android studio, built on JetBrains IntelliJ IDEA software and designed specifically for android development. It is accessible for download on macOS, Linux, windows based working frameworks. Substitution of the local android application advancement is the Eclipse Android Development tools (ADT) as essential IDE. At the Google I/O conference Android Studio was published on May 16, 2013. It was in initial entrance see establish opening from variant 0.1 in May 2013, at that point entered beta stage starting from adjustment 0.8 which was released in June 2014. In December 2014 the main static form was released, beginning from rendition 1.0. The present stable rendition is 3.0 discharged in October 2017. ADT (Android Development Tools) is the product used to create android applications, it fundamentally encases Eclipse IDE, which is a multi-dialect integrated advancement condition (IDE) containing a basis workspace and an expansible module framework for tweaking the planet. The most recent rendition accompanies ADT module preinstalled and packaged to the IDE. This is the manner by which the IDE looks like with the essential components checked. Application programming interface (API) determines how some product segments ought to communicate with each other. In most of the cases an API is a library that as a rule incorporates particular for schedules, information structures, question classes, and factors. Google APIs can be downloaded from Google Code, Google's website for engineer instruments, APIs and specialized assets. The Google Data API enables software engineers to make applications that read and compose information from Google administrations. Right now, these incorporate Search google Earth, google Calender, Picasa Web Albums, Google Spreadsheets, Google Analytics, and Blogger. Figure 3.1: Interface of Android Studio, SDK (Software Development Kit or "Devkit") is normally an arrangement of programming improvement apparatuses that takes into account the production of uses for a specific programming bundle. programming structure, equipment stage, PC framework, computer game comfort, working framework or comparable advancement stage. It might be something as straight forward as an application programming interface (API) as a few records to interface to a specific programming dialect or incorporate modern equipment to work with a specific inserted framework. Basic instruments incorporate investigating helps and different utilities frequently displayed in a coordinated advancement condition (IDE). In the most recent variant of ADT, the android SDK includes to the IDE consequently when you unfasten and

stack the IDE. SDK Manager empowers us to download Google APIs and utilize them in our code. [Figure 3.2: Android Studio SDK Manager](#) 3.2 System Requirements Table 3.1: [Version 3.x Criterion Description OS version Microsoft® Windows® 7/8/10 \(32-bit or 64-bit\) Mac® OS X® 10.10 \(Yosemite\) or higher up to 10.13 \(macOS High Sierra\) GNOME or KDE desktop Linux \(64 bit capable of running 32-bit application \)/GNULC Library \(elibr\) 2.19+1 RAM 3 GB RAM minimum 8 GB RAM recommended; plus 1 GB for the Android Emulator Disk space 2 GB of available disk space minimum 4 GB recommended \(500 MB for IDE + 1.5 GB for Android SDK and emulator system image\) Java version Java development Kit \(JDK\) 8 Screen resolution 1280*800 minimum screen resolution Table 3.2: \[Version 2.x Criterion Description OS version Windows 7 or later Mac OS X 10.9.5 or later GNOME or KDE desktop Linux RAM 8 GB RAM recommended; plus 1 GB for the Android Emulator Disk space 500 MB disk space for Android Studio, at least 1.5 GB for Android SDK emulator system image, and caches Java version Java Development Kit \\(JDK\\) 8 Screen resolution 1280*800 minimum screen resolutions Table 3.3: \\[Version 1.x Criterion Description OS version Mac OS X 10.8.5 or later GNOME KDE or Unity desktop on Ubuntu or Fedora or GNU/Linux debian RAM 3 GB RAM minimum 4 GB RAM recommended Disk space 500 MB disk space Space for Android SDK At least 1 GB for Android SDK emulator system images and caches JDK version Java Development Kit \\\(JDK\\\) 7 or higher Screen resolution 1280*800 minimum screen resolution 3.3 XAMPP XAMPP is an open-source web server bundle that deals with different stages. It is really an acronym with X signifying "cross" stage, A for Apache HTTP server, M for MySQL, P for PHP, and P for Perl. XAMPP was intended to help webpage developers, programmers, software engineers, and planners check and audit their work utilizing their PCs even without association with the web. What's more, since XAMPP is planned as a cross-stage server bundle, it is accessible for an assortment of working frameworks and stages like Microsoft Windows, Mac OS X, Linux, and Solaris. 3.4 Usage WAMP webserver stack can be deployed as a result of the use of the XAMPP. Then some general bundled applications that can be easily installed were provided by Bitnajim. Officially, XAMPP's designers intended it for use only as a development tool, to allow website designers and programmers to test their work on their own computers without any access to the Internet. A particular tools are provided to protect password, that is the important part of the package. XAMPP also provides support for building and manipulating database in Maria DB and SQLite. 3.5 Sublime Text Sublime Text is an monopolistic cross-stage production code editor with a Python application programming interface \\\(API\\\). It natively underpins numerous programming idioms and increment idioms, and capacity can be accessory by clients with modules, ordinarily community combined and guarded up beneath free-programming licenses. 3.6 Features The following is a list of feature of Sublime Text: ? "Goto Anything" speed route to records, symbols, or lines, ? "Command palette" utilizes multipurpose coordinating for rapid comfort summon of self-assertive change, ? Simultaneous defecting: at the same time roll out the same intuitive benefits to much choose territories, ? Project-particular inclinations, ? Extensive adaptability by means of JSON setting documents, including venture particular and stage particular settings, ? Cross-stage \\\(Windows, macOS, and Linux\\\) and Supportive Plugins for cross stage, ? Compatible with numerous idiom sentence formation from TextMate, ? Auto save, macros and repeat the last action, CHAPTER 4 PROPOSED MODEL AND DESIGN 4.1 Block Diagram The block diagram provides a top level listing of and basic interaction of applications, Here is the block diagram, The figure is given below: Figure 4.1: Block diagram 4.2 Description of Application Log In: Logging in is the process by which an individual user access to our application by identifying and authenticating them. Skip Log In:\\]\\(#\\)\]\(#\)](#)

It's an open source platform. If anyone want inter the application without login we will give them access for it. Because it's a non-profitable informational application. Sign Up: Sign up for an account and give some information about user. This will be stored in database. Profile: A short description of user's. They can update and delete their profile. Upazila Service Center: Upazila Service Center will be a great virtual platform for the upazila center and people. Service provider of the upazila can easily announcement about services. They can update their services. Notice Board: Peoples can get any update or notice about their upazila. Home page: There will be various information about upazila services and it is the main page for our application. News feed: various services which will be in home page. 4.3 Use Case Modeling and Description Figure 4.2: Use Case Diagram Table 4.1 Use Case Analysis Use Case: Sign Up Actors: User Type: Primary Description: If user wants to access this application, they must provide information to sign up Uses: Log in Extended By: None Extends: None Use Case: Log In Actors: User Type: Primary Description: If user wants to log in this application they must inter valid information to log in. Uses: Profile Extended By: None Extends: None Use Case: Noticeboard Actors: User Type: Primary Description: Easiest way to find out any information notice Uses: User Extended By: None Extends: None Use Case: Information Actors: Authority can publish information Type: Primary Description: Authority update information everyday Uses: User gets information Extended By: None Extends: Update Information 5.4 Interaction Design and UX An interaction design is a way that discuss between system and user. To understand the user problem or for knowing user requirement we use interaction design. Not only finding problem but also I find this problem solution. It also focuses that user experience to use this application. In our application admin can add notice. User can see all notice. All the home contents are user friendly. For UX we have tested it by twelve peoples. In those people ten are said that this application is very helpful and user friendly. 4.5 Implementation Requirements It's an android base project. For building this application we needed a – ? Firstly I need a well-managed computer ? Android Studio where I write code in java ? For store data I used firebase database Before run the project I need to compile the project and then run my application for excess everywhere. CHAPTER 5 IMPLEMENTATION AND TESTING 5.1 Implementation of Database Firstly we want to say that our application upazila service center is an informational base application system. There is a few works within database. We used firebase database for our application. Firebase provides a real-time database and back-end as a serving.. We can edit, delete and insert data in our database. Figure 5.3: Notices database table Figure 5.2: Login database Table 5.2 Implementation of Frontend Design Frontend design means which design that we can see with our eyes. The screenshots below show the main project view. Figure 5.3: User Registration form This is user registration form for upazila service center. If anyone has no account or wants to create account, he or she needs to fill up this registration form. Here email option is optional. If anyone has email then he or she can fill up email option. Otherwise it will be blank and then enter submit button. Figure 5.4: User login page This is login page in upazila service center. Firstly everyone has to login first then they entered in the main dashboard. This system will be controlled by admin. Here also given an option of forget password. If anyone forgets their password then they can use forget password option and by using this they can reset their password. Figure 5.5: Home page This is main home page for my apps. Here will be a notice board for user. Every information/notice of upazila will be updated every day into the notice board. User can see it easily. Figure 5.6: Services There are eight types of services which you can see. If you click any one of them you can see detail about

those services. In future we will add other services. We get these information's from upazila office and try to our best for develop a standard application. This through people can get their essential information easily. Figure 5.7: Hot line services There is a hot line services also. We will add here more hot line number in future. People can also benefit from there. This feature directly connected with cellphone. 5.3 Testing Implementation [Table 5. 1: Testing Test case Test input Expected outcome Obtained outcome](#) Pass / Fail Tested date 1. Login Various browser use for login Login successfully Successful login Pass 01-5- 20 2. Registration Fill up registration form Fill up successfully Successfully Registration Pass 01-5- 20 3. Add notice Description added successfully Successfully added notice Pass 02-5- 20 4. Update user information User information User information updated successfully Successfully updated user information Pass 02-5- 20 5. Update Information Input information information save successfully Successfully add information Pass 07-5- 6. Internet connection Connect through internet Connect internet properly Successfully connected Pass 07-5- 20 5.3.1 [Testing Methodology In general, software testing is used to find out system errors. A software test can be finding out codes, design and executing errors of the whole system. Testing is essential to improve the quality of the system.](#) 5.3 .2 [Functional Testing](#) In [functional testing](#) tester has to validate the application to see that all specified requirements of the user's whatever we have said in supplemental restraint system have been incorporated or not. There are two categories of functional testing: ? Positive functional testing: testing the systems's operations with potent input and also confirming that the outputs are accurate, ? Negative functional testing: IT environ behavior system functionality using a abbreviation of void inputs several casual operating conditions and by some other "out-of-bounds" continuity, 5.3.3 Unit Test Unit testing is used for detailed design and implementation of a project .Unit testing is used to detect project errors. 5.3.4 Compatibility Test Compatibility Testing, portion of software non-functional experiment, is experiment directed on the application to measure the application's with the calculating circumstance, Software balance testing can be much appropriately mentioned to as user perception environment, This project is tested an different types of android mobile to ensure the following- [Table 5,2: Compatibility Test Result](#) Android Device Name Screen size Test Result Redmi prime 5A 5,5 inch Yes Okay Realme A2 Lite 5,84 inch Yes Okay Xiaomi Redmi Note 7 6,3 inch Yes Okay Sarnsung s8 5,8 inch Yes Okay Huawei Nova 3i 6,2 Inch Yes Okay Huawei P9 Lite 5,2 inch Yes Okay [CHAPTER 6 CONCLUSION AND FUTURE SCOPE](#) 6.1 [Conclusion](#) "Upazila Service Center" is a [user friendly](#) app for the [user](#)/ peoples, [User can](#) know various kinds of upazila services they can be benefited take those services. In case of emergency user can contact the hotline to get better information. This platform will be better to get medical, agriculture, informational, tourism and land services. 6.2 [Goal](#) The main goal is to create an android application where we can reach them all kind of information and services about Upazila, To build a good community and good relationship between upazila and peoples , that is the most important goal of this project, 6.3 [Limitaion](#) ? Users can not use this application in offline, ? Users can not comment in this application. ? Users will not be able to share files 6.4 [Scope for future development](#) ? Work for gorgeous user interface ? Develop apps security ? More function will be added ? User comment and rating section will be added ? We will add feedback system [REFERENCE](#) [1]. [K. H. Bae, "A Study on Development and Application of Cooperative Learning Model for Interdisciplinary Approach in Curriculum Development", The Journal of Korean society for educational technology, vol. 28, no. 4, 2012, pp. 907-924, \[2\]. K. Inae, B. B. Lim and J. Y. Park, "Exploring the theoretical framework and teaching & learning strategies of Smart Learning: Using cases of university classrooms", The Journal of Korean Association for Educational](#)