

Print-It, A Resource Sharing App

BY

**Mostofa Sorowar
ID: 161-15-6852**

**Fahmida Noor Dipti
ID: 161-15-6859
AND**

**Rafid Ahmed Abdullah
ID: 161-15-7054**

This Report Presented in Partial Fulfillment of the Requirements for the
Degree of Bachelor of Science in Computer Science and Engineering

Supervised By

Seikh Rasheed Haider Noori, PhD
Associate Head
Department of CSE
Daffodil International University

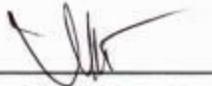


**DAFFODIL INTERNATIONAL UNIVERSITY
DHAKA, BANGLADESH
DECEMBER, 2019**

APPROVAL

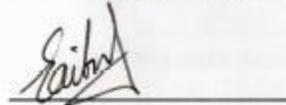
This Project titled “Print-It, A Resource Sharing App”, submitted by Mostofa Sorowar ID no. 161-15-6852 and Fahmida Noor Dipti ID no. 161-15-6859 and Rafid Ahmed Abdullah ID no. 161-15-7054 to the Department of Computer Science and Engineering, Daffodil International University, has been accepted as 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 5th December, 2019.

BOARD OF EXAMINERS



Dr. Syed Akhter Hossain
Professor and Head
Department of Computer Science & Engineering
Faculty of Science & Information Technology
Daffodil International University

Chairman



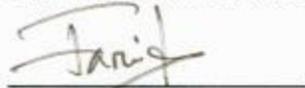
Saiful Islam
Senior Lecturer
Department of Computer Science & Engineering
Faculty of Science & Information Technology
Daffodil International University

Internal Examiner



Shaon Bhatta Shuvo
Senior Lecturer
Department of Computer Science & Engineering
Faculty of Science & Information Technology
Daffodil International University

Internal Examiner



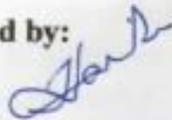
Dr. Dewan Md. Farid
Associate Professor
Department of Computer Science & Engineering
United International University

External Examiner

DECLARATION

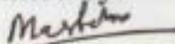
We hereby declare that, this project work titled "Print-It, A Resource Sharing App" has been done by us under the supervision of **Sheak Rashed Haider Noori, Associate Head, Department of Computer Science & Engineering, Daffodil International University**. We also declare that it has not formed the basis for the award of any Degree/Diploma/Associate ship/ Fellowship or other similar title to any candidate of any University.

Supervised by:

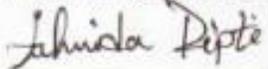


Sheak Rashed Haider Noori
Associate Head
Department of CSE
Daffodil International University

Submitted by:



Mostofa Sorowar
ID:161-15-6852
Department of CSE
Daffodil International University



Fahmida Noor Dipti
ID: 161-15-6859
Department of CSE
Daffodil International University



Rafid Ahmed Abdullah
ID: 161-15-7054
Department of CSE

ACKNOWLEDGEMENT

In the accomplishment of the project successfully, many people have best owned upon us their blessing and the heart pledged support. This time I am utilizing to thanks all the people who have been concern about our android based project.

It was always a pleasure to remind the fine people in the Daffodil International University for their Sincere Guidance to complete our project & develop our coding skill in Android application.

Primarily we are grateful to the god for our good health and well being that was necessary to complete our project. We would thank god for being able to make our project successful

We would like to express our gratitude to our supervisor **Sheak Rashed Haider Noori, Associate Head**, Department of CSE, Daffodil International University, and Dhaka. His countless endurance, scholarly advice, regular support, continual and also dynamic direction, useful complaint, beneficial assistance and correcting them at all stage have made it possible to complete this project.

We wish expressing the heartiest appreciation to Head, Department of CSE, for his kind help to finish our project and also to other faculty member of CSE department of Daffodil International University.

I also acknowledge with great sense of revenue, our gratitude to our parents and member of our family, who has always supported us morally as well as economically

At last but not the least, all classmate of us and employee of Daffodil International University who has help out us to complete the project by discussing about the problem we faced while completing the project. Our friends helped us to find the error, bugs.

Any absence in this acknowledgement does not mean any lack of gratitude.

Abstract

This particular task entitled “Print-It, The Resource Shearing Application, that is a good google android dependent task created within espresso with regard to google android. This is an online reservation system which helps the customer to book others printer rather than using traditional way to go in the printing shop, standing on the queue. This app will help the people who haven’t any shop but have a printer machine in their home; they can make profit easily by using the printing machine of them. There are some related works that looks alike our works, but in some point we have differences with them. In this report we have discussed about the differences briefly. We also showed the front end design, back end design, database, and database implementation. This report shows the future plan and how we can make profit with it.

TABLE OF CONTENTS

CONTENTS	Page
Board of examiners	i
Declaration	ii
Acknowledgements	iii
Abstract	iv
CHAPTER	
Chapter 1: Introduction	1-2
1.1 Introduction	2
1.2 Motivation	2
1.3 Objectives	1-2
1.4 Expected Outcome	2
1.5 Report Layout	2
Chapter 2: Background	3-7
2.1 Introduction	3
2.2 Related Works	3-4
2.3 Comparative Studies	5
2.4 Scope of the Problem	5-6
2.5 Challenges	6-7
Chapter 3: Requirement Specification	8-11
3.1 Business Process Modeling	8
3.2 Requirement Collection and Analysis	9
3.3 Use Case Modeling and Description	9-10
3.4 Logical Data Model	10-11
3.5 Design Requirements	11
Chapter 4: Design Specification	12-17
4.1 Front-end Design	12-16
4.2 Back-end Design	17
4.3 Interaction Design and UX	17
4.4 Implementation Requirements	17
Chapter 5: Implementation and Testing	18-20
5.1 Implementation of Database	18-19
5.2 Implementation of Front-end Design	19
5.3 Implementation of Interactions	19
5.4 Testing Implementation	20
5.5 Test Results and Reports	20
Chapter 6: Conclusion and Future Scope	21
6.1 Discussion and Conclusion	21
6.2 Scope for Further Developments	21
REFERENCES	22

LIST OF FIGURES

FIGURES	PAGE
Figure 2.2.1: uber ride share	3
Figure 2.2.2: pathao bike ride share	4
Figure 2.2.3: fiverr logo and concept	4
Figure 2.4: Basic mapping display	6
Figure3.1: statistics of money spend by the user in In-app purchase	8 9
Figure 3.2: Brainstorming of three people	
Figure 3.3: Use Case mode diagram	10
Figure 3.4: Logical data model	11
Figure 4.1.1: application login process	12
Figure 4.1.2: application OTP authentication process	12
Figure 4.1.3: application welcome layout	13
Figure 4.1.4: application profile making process	13
Figure 4.1.5: send request process of the user	14
Figure 4.1.6: pending request process of Print man	14
Figure 4.1.7: receive request process of Print man	14
Figure 4.1.8: notification layout of the user	15
Figure 4.1.9: Auto application layout	15
Figure 4.1.10: notepad layout	16
Figure 4.1.11: Sign out layout	16
Figure5.1.1: database of user information	18
Figure5.1.2: database of order and request information	18

CHAPTER 1

Introduction

1.1. Introduction

This is the world of modern era, every field is getting updated day by day, in the past decades we had to use pen, ink to write letter and a lots of time to send the letter but these days are passed away, now we use email, This took a revolution. Every year many apps are developing to make our life easier. “Print-It, The Resource Shearing App’ is actually one of these. That request will assist available you to help print out docs, there is absolutely no needed to self applied provide This will help the user to save time. On the other hand the user who has a printer in their house they can make profit easily by using their machine by staying at home. This will also help us to save time by malign auto application. We need to submit the subject only of the application.

1.2Motivation

This App is actually developed for the people who want to save time & do not want to waste time by giving a serial in queue outside of the printing shop. This is a time saver app. This app will help to reduce unemployment. By having a printing machine any one can make money. This will help to improve economical condition of our country.

For disable people this app will help like a pro. Because by this app they can get easily their printed documents and for the older citizen whom cannot go anywhere without the help of another person, they can use it to get the documents at their home.

Printing anything from anywhere is no longer fantasy. In fact, it is some time necessity if using a Smartphone, tablet or laptop plays a vital role of our daily life. In some cases: you receive a huge number of spreadsheet document on your Smartphone and need a way to view the document without squinting, so you must print the documents but it’s raining outside, so what will you do? This app will help you at this moment

1.3 OBJECTIVES

Example of project objectives:

- To verify the user by sending a goggle opt authentication to the mobile number that is provided by the user while login to the app
- storing user information in the database
- storing the documents that is pending in the database
- Storing the list of the work that is already done.
- auto application/ latter making process

Example of system objectives:

- to develop a simple and intuitive UI
- to enable users to either enter the required parameters manually or get the system to generate them automatically

1.4. Expected Outcome

The final results include the alterations as well as benefits that this corporation wants to get reached following profitable end in the undertaking. The outcome might be quantitative or even qualitative or even each. Our expected outcomes from this project are:

- responding to a new trend with our app
- a user friendly app
- the actual task may place an understanding bottom with regard to the use of particular techniques.
- make a great communication among the people through this app
- save time 2X than old trend of printing method
- will fill a gap of knowledge by auto application method

1.5. Report Layout

This report is written in a chapter format. The objects or topics we have discussed in this report are:

Chapter 1: Introduction, Motivation, Objectives, Expected Outcome, Report Layout

Chapter 2: Introduction about the background of the project, Some related Works, Comparative Studies, Scope of the Problem, Challenges

Chapter 3: Business Process Modeling, Requirement Collection and Analysis, Use Case Modeling and Description, Logical Data Model, Design Requirements

Chapter 4: Front-end Design, Back-end Design, Interaction Design and UX, Implementation Requirements

Chapter 5: Implementation of Database, Implementation of Front-end Design, Implementation of Interactions, Testing Implementation, Test Results and Reports

Chapter 6: Discussion and conclusion , Scope for Further Development

CHAPTER 2

Background

2.1 Introduction

Every once in a while, we all are faced with dreadful times, where we need to quickly make printed copy of our document, presentation, an application form but are at a loss of printing shop or the shop has a long queue. A very common problem faced by more than half of the students- you, me and every mate of ours. Though now a days we submit the softcopy online of our all report & work documents but at some point we moat need to print the documents. Having a printer is luxurious and unnecessary tools, where we can print our documents via online. In a recent research shows that between 40 to 60 percent of all IT calls are related to print environments. This means that in-house IT-staffers are in need of through printing requirements. In that case they need not to by the printer, they can use others printer by staying at home. Most of the students need to print their course outline, lecture sheet, presentation, and lab report. But if the printing shop near them is off or booked then what should he do! At that time they can be benefited by the app.

2.2 Related Works

We have made a resource sharing app while making this app, it seems like there are some related works with ours. These are:

Uber: is definitely a United states international ridesharing organization providing providers including peer-to-peer ridesharing, trip support hailing, meals shipping, along with a bicycle-sharing program. The organization relies within Bay area and it has procedures within more than 785 urban centers globally.

[1]

The following figure shows the basic process of uber:



Figure 2.2.1: uber ride share

Pathao: is actually a Bangladeshi moving multi-level enterprise based around Dhaka, Bangladesh. As of October 2019, it operates services in three cities of Bangladesh: Dhaka, Chittagong, and Sylhet along with several suburbs of Dhaka and Chittagong. Besides ride-sharing services, it has ventures in E-commerce, merchant, courier and Apart from ride-sharing providers, its endeavors within E-commerce, vendor, courier as well as food delivery providers. Pathao is a Bengali word meaning send it. [2] The following figures show the basic process of pathao & fiverr:

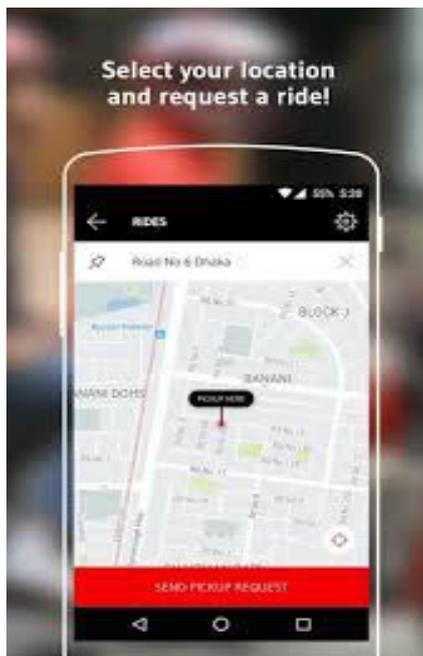


Figure 2.2.2: pathao bike ride share

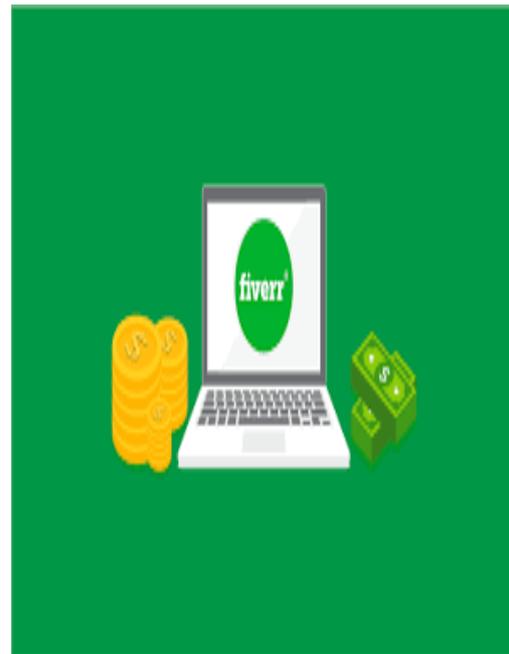


Figure 2.2.3: fiverr logo and concept

Fiverr: definitely an Israeli on the internet industry with regard to freelance providers.. Founded in 2010, the company is based in Tel Aviv, Israel, and provides a platform for freelancers to offer services to customers worldwide [3] here people help each other and earn revenue and our concept is inspired by them. Figure 2.2.3 shows the basic process of fiverr.

So many shearing app we can compare with our project app, but one point that makes our project unique than others is we will make able to share one's printer machine to another with a profit.

2.3 Comparative Studies

In this chapter we have discussed about the differences between our 'Print-it' and some works that are related to our works:

Connection: we need not to connect any printer we just connect two people by their interest who in need of printer and who wants to print documents in their printer while Shared Printer is maintained by PrinterShare client running on desktop computer connected to the Real Printer. . In the event that PrinterShare customer isn't operating,, In the event that PrinterShare customer isn't operating. This is a complex process.

Shared printers: Shared Printer is maintained by PrinterShare client running on desktop computer connected to the Real Printer. In the event that PrinterShare customer isn't operating,, In the event that PrinterShare customer isn't operating, In Print-It client share only documents that to be print and service provider will receive the work

Conversation: If shared printer is offline, user can't print on it the document will be temporarily stored on PrinterShare print server, and downloaded by receiving client as soon as it will be ready. That means printer should always be online. On the other side Print-it has no need to connect the printer online it's just a matter of the owner.

Availability: In PrinterShare only the client can choose the machine but if the shared m printer is not available then user have to wait for his turn where else in Print-It, service receiver only have to upload the document then interested Service provider will accept the request

Shared printers and client's request should be connected in one local area network where Print-it needs not this kind of connection

Moreover printerShare is a complicated process users are always willing to use a user-friendly process where print-it is a user friendly application And Print-it have some extra feature that is it can make auto application, user just have to submit the subject of the application.

2.4 Scope of the Problem

New software and technology from Printer Anywhere, enables any user with an Internet connection to connect to any printer worldwide. Users are able to use their printer to make money, without standard networking equipment, by downloading and installing the free software. As we declared that our app is user friendly and easy to access but some at some point it has some limitations and may face some problem:

Mapping: Maps is a Web-based service that provides detailed information about geographical regions and sites around the world. In addition to conventional road maps, Maps offers aerial and satellite views of many places. In other app like uber

pathao, user can see where their shared ride is, they can keep an eye on their cab or bike how much time it will take to arrive, but our user doesn't have this facility

This following figure shows the basic display of mapping used in uber:

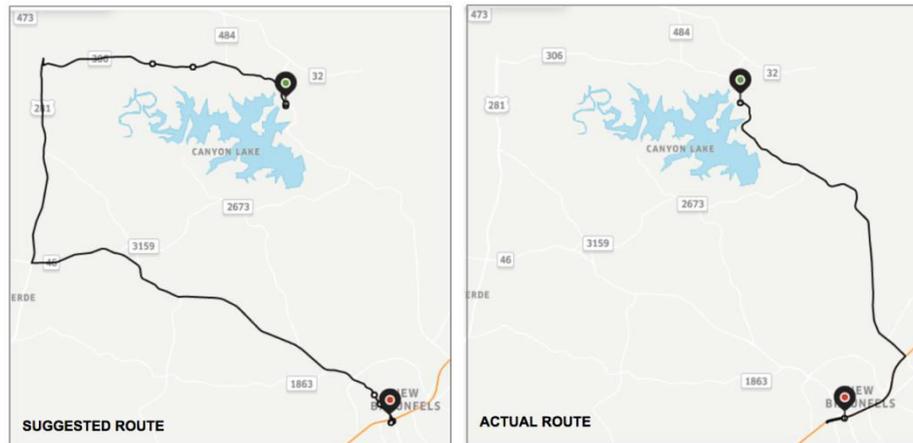


Figure 2.4: Basic mapping display

File Sharing: main part of our project is to print the client's document but there is no option to share file or submit the file to printer owner, here clients need to upload the in goggle drive and share the link of goggle drive . Interested service provider has to access the goggle drive link and download the file.

Delivery: After all work it's time to deliver the printed documents. At that point it can't be done by the app. Client and service provider has to communicate over phone where they both can meet up to receive and deliver the printed documents.

Payment Method: in that app there is no option to get paid online, users have to transact in the delivery spot, and it seems risky sometime.

2.5 Challenges

Despite the benefits of our Android app and the opportunities it provides, there are still several challenges:

Security: Software and hardware fragmentation cause more security problems. There are several security flaws such as mobile number stealing, documents stealing, Android Installer hijacking, and Android FakeID flaw.

Promotion and Market Research Cost: The cost of market research is one of the biggest challenges for our Android app one major factor required for our Android app development is to understand the end user, but this needs loads of research and is very expensive. For us it is very difficult to get our app visible among this huge population

in Goggle play store we have to do a lot of promotion. Developing an excellent app is not enough. And significant promotion requires a lot of money.

Search Engine Visibility: Google Play Store contains a higher number of mobile apps. Additionally, a large number of Android users prefer free apps than paid apps which is why we need to promote our mobile applications to increase our download numbers and employ application monetization options

Chapter 3

Requirement Specification

3.1 Business Process Modeling

Once the app development process is completed, we have got to make a crucial decision before you make it available on the Google Play Store. We are not going to charge users to download it we will make it free for the user. One of the reasons of so many people decide to charge for downloads is because they don't know any other way to generate money for the app. Mobile users are not used to paying for their app.'s it's unlikely we'll make an exception of ours.

There's always something similar that's available on the market, so they could just get it for free somewhere else. So our best choice is to offer it without charging anything. Then try to get as many downloads as possible and look to other options for revenue streams. Like

In-app purchases: This following figure shows in app purchase statistics:

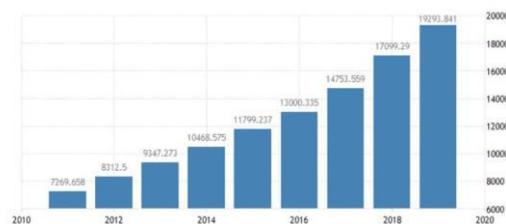


figure3.1: statistics of money spend by the user in In-app purchase

In a research it has been showed that people are spending a lot of money to add extra feature and to use the app without any interaction. The amount of the money is being increasing day by day.

So, we will offer our users extra features and additional options. These upgrades will help increase their engagement and improve the user experience.

Advertisements: Advertisements are pretty self explanatory. The type of ads offered on our platform will affect the pay rate as well. While these can make us money, sometimes they can be intrusive to the user experience. So we don't want to go overboard with ads. With that said, we can combine your advertising strategy with your in-app purchases business model as well.

3.2 Requirement Collection and Analysis

To complete a project main part is to collect the requirement first. We can't start a project without the list of requirement. To collect requirement first process that we chose is

Brainstorming: It is the process of group thinking. As we three people working in this project first e decide to have a meeting, so that we can share out different thinking and creative ideas about this project. This technique works very usefully for our project as we didn't have any preset need. We tried to pursue requirements for our project.

The following figure 3.2 shows the brain storming process of three people:



Figure 3.2: Brainstorming of three people

Observation: Most of the student need printed documents or file, so we have taken a look that what they need in a printed app. We have explored that they will be benefited if there is an auto application maker and note pad. And it's difficult to find out a printing shop at the end time, so we have made our app online responsive.

3.3 Use Case Modeling and Description

Our use case model reflect the whole process how a user get interaction with our application. The actor have to login first with a mobile number that is verified by the Google authentication (OTP). Then s/he can create and update profile, send request to have the print.

User can see the list of the order that to be printed and also can visit the previous list that is already done. They can use auto application process that is included save file. After saving, the file will be stored at the device the user also have the facilities to use notepad

The following figure shows the use case model of our app:

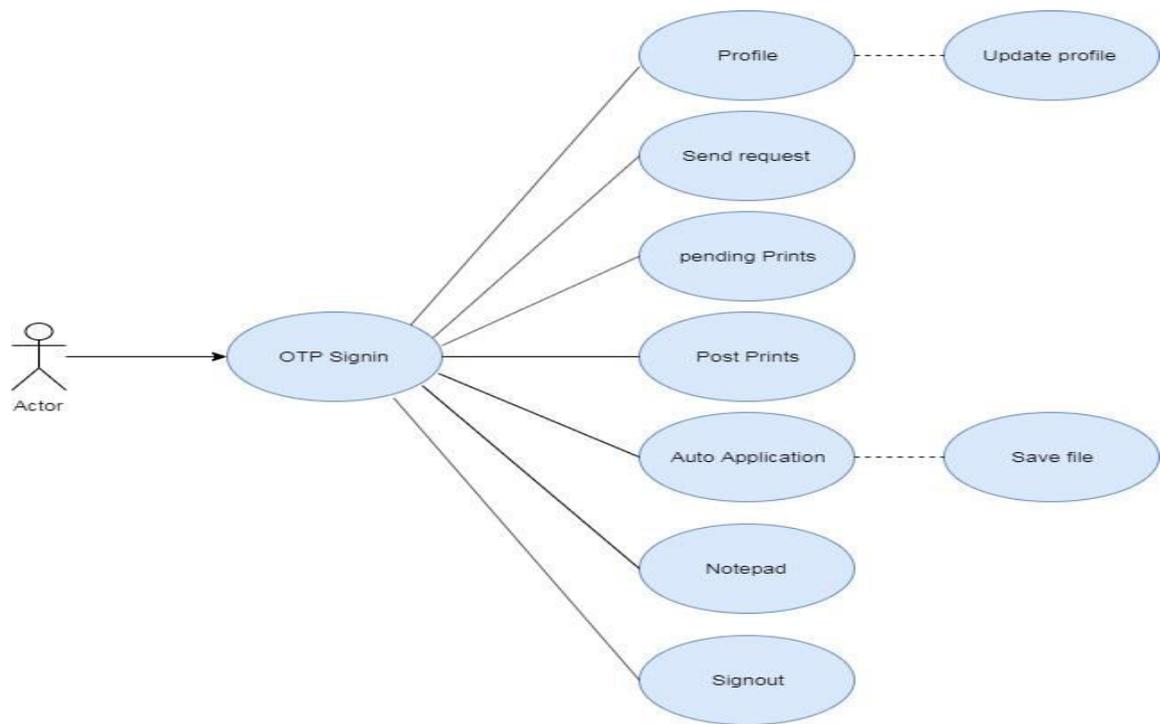


Figure 3.3: Use Case mode diagram

3.4 Logical Data Model

Logical data model will describe our data in a detailed form. Here we describe our entity class and the relation between them. It will represent our database as well as user activity. Classes that we have in our application are User, Login, Update, Auto application, Notepad, Request, Pending prints, past prints.

‘OTP’ method is used to verify the mobile number that is provided by the user. ‘Send request’ method will help the user to reach their file to the printer holder. ‘Save file’ method will help the use to save the file after making an auto application.

The following figure represents the logical data model of our application:

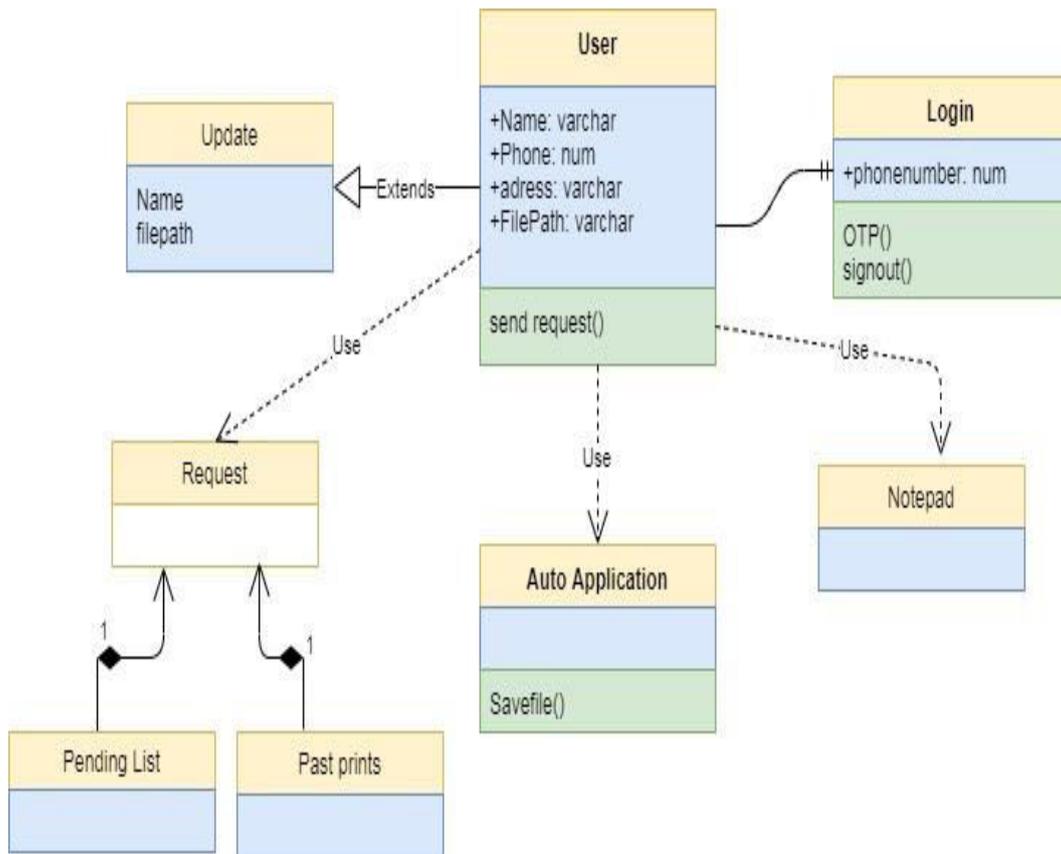


Figure 3.4: Logical data model

3.5 Design Requirements

To design the front end and back end we need to have knowledge about design concept. We had to design a model for the user where the user can create their profile or login with Goggle authentication method. We have used Image view to design the layout, Text view to show data, used Button to submit the procedure, List view is used to view the real time database in listed form, Edit text for user input. We had to design a firebase real time database, to store the information of user. We have used draw.io website for making our UML diagram, flowchart, ER diagram, logical data model.[4]

Chapter 4

Design Specification

4.1 Front-end Design

We make our application layout user friendly and efficient. User can get knowledge about our application at a very first look. Here is the user interface layout picture of our application. User has to login first to use our application as a user or print man.

The following figure shows the login process of our application :

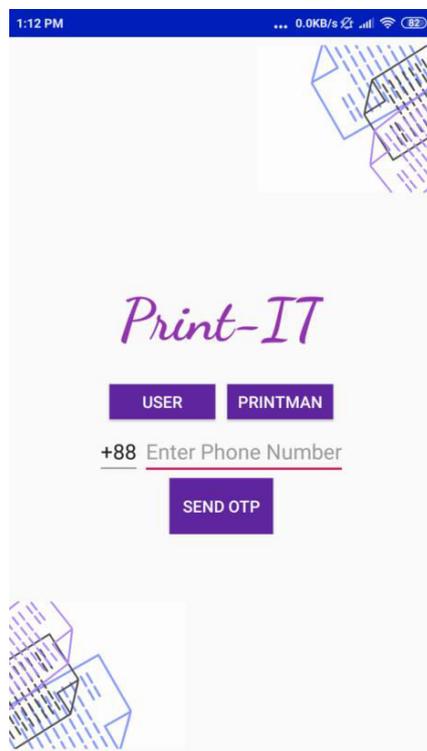


Figure 4.1.1: application login process

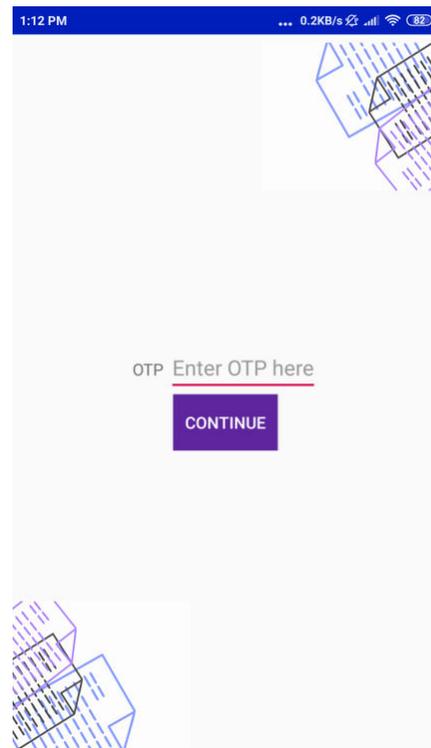


Figure 4.1.2: application OTP authentication process

After submitting the mobile number user will be sent an OTP code to authenticate the number validation. The following figure shows the OTP submitting process of our application. Figure 4.1.2 shows application OTP authentication process of our application. After submitting OTP user have to create their profile with their user name and address. The following figures show the welcome layout and profile making process of our application:



Figure 4.1.3: application welcome layout

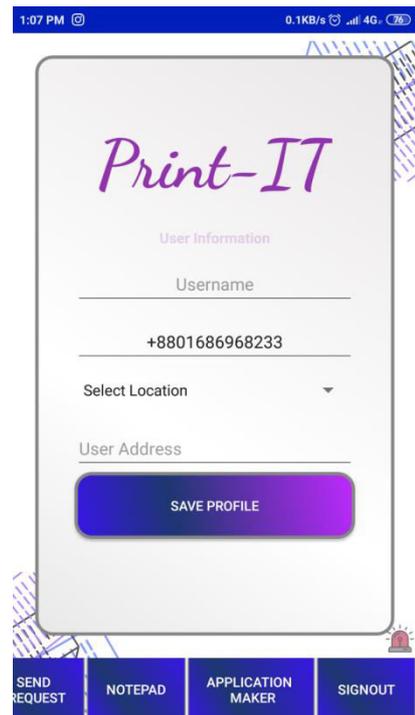


Figure 4.1.4: profile making process

To have the service user has to send request to the print man with filling up the following information. When a request is placed is will be shown at pending prints, user and print man both can see the list. The following figure shows the ‘pending request’ layout and ‘send request’ process of our application:

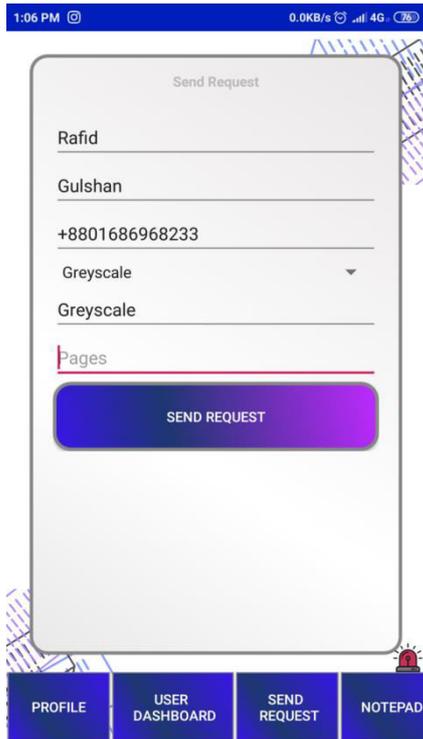


Figure 4.1.5: send request process of the user



Figure 4.1.6: pending request process of Print man

when print man receives and complete his job user will be shown the price and notification. The following figure shows the request receiving and notification process of the user:



Figure 4.1.7: receive request process of Print man

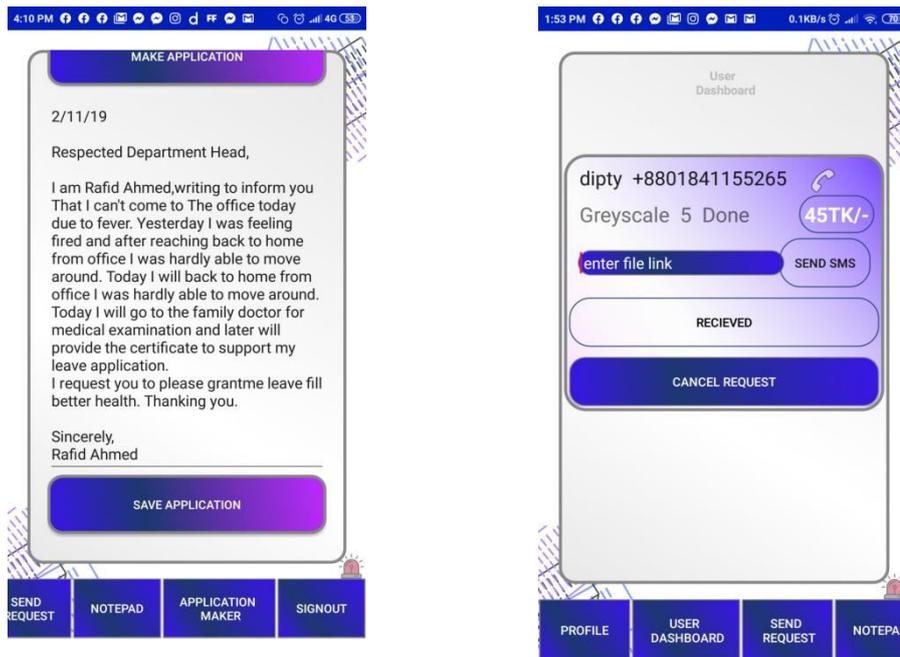


Figure 4.1.8: notification layout of the user

Our users will be benefitted with some extra features which are auto application maker, where users have to submit the reason of the application and have to save file. They also can use notepad as an extra feature. The following figure shows the extra features that are provided by our apps:

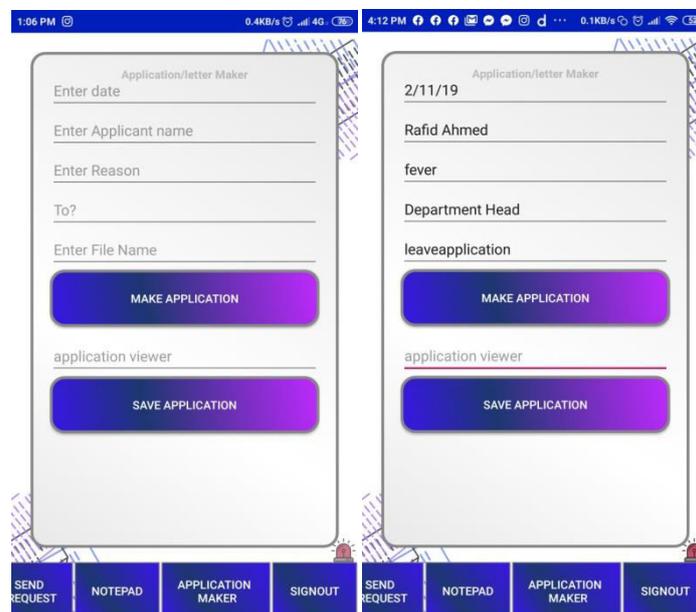


Figure 4.1.9: Auto application layout

In figure 4.1.9 we have submitted the topic of the auto application process, and in 4.1.10 auto application is generated, and figure 4.1.11 shows the notepad layout:

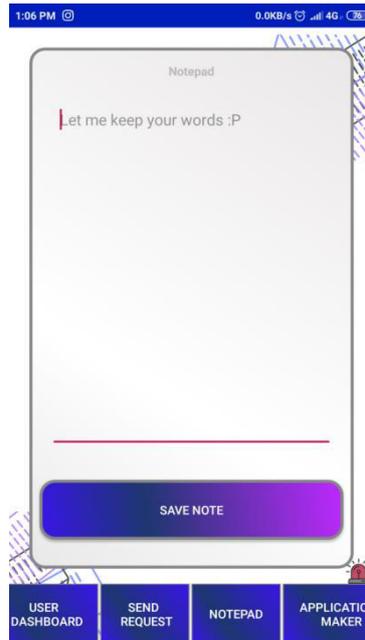


Figure 4.1.11: notepad layout

When all process is done user can sign out for their security purpose which is shown in the following figure:



Figure 4.1.12: Sign out layout

4.2 Backend design

For back-end design we have used java for android. We have used real time firebase database for storing the data of the user Whenever you construct cross-platform applications with this iOS, Google android, as well as JavaScript SDKs, all your customers reveal 1 Real-time Data source example as well as instantly obtain improvements using the most recent information.5]we used android studio to compile our program. We used firebase phone authentication to verify the user.

4.3 Interaction Design & UX

Interaction design reflect the process that how the application and the user interact with each other. Mechanism of interaction design shows the user's problem with the system. We have kept our user interface as simple as possible. We have used authentication process with mobile number instead of email address, because it is hassle free and time saving. It doesn't need internet access, so it is a user friendly process. Interactions are user friendly and simple for the user because user's satisfaction is the main priority of our project.

4.4 Implementation Requirements

For making that application we have used a lot of attributes, and various types of components. These tools made our app accessible and easier to use. We have faced a lot of problem while making this application. To solve these problems we have learnt a lot of thing. We have invested a lot of energy and time in this project. We have made our project enjoyable.

Chapter 5

Implementation and Testing

5.1 Implementation of Database

To create our database we have used real-time firebase database because all of your clients share one Real-time Database instance and automatically receive updates with the newest data. That will store the information which is provided by the user as it has a strict database security rule, data is safe in it. Real-time database is easy to access and User have to submit his phone number which is the primary key, then their name address, & file path. All these data will be saved in the firebase database

The following pictures show the front end design of our database:



Figure5.1.1: database of user information

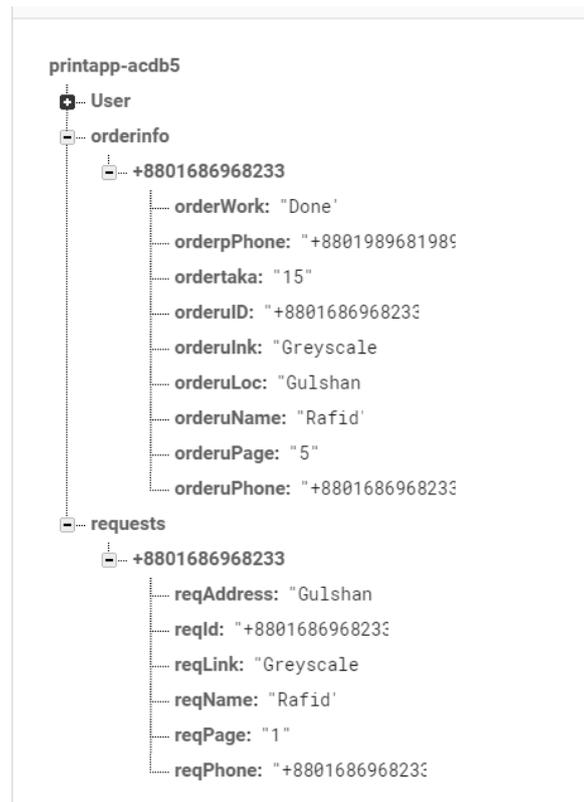


Figure5.1.2: database of order and request information

5.2 Implementation of Front-end Design

We design our application user interface with XML. We make our application layout user friendly and efficient. User can get knowledge about our application at a very first look. We have used Edit text, List box, Text view, Button from android studio default resource file to make our application efficient. We have also used some picture from some websites in our application to look more attractive. Mixing after all these elements we have made a beautiful android application.

5.3 Implementation of Interactions

When a user starts to use our application, it starts interacting with firebase database. We use firebase database for storing user's information like phone number, name, address, file path for submitting these information when they hit the send request button all these information goes to database. If any user needs to change their file path or something else then they can update their profile, update profile is also interacting with database and it updates the existing profile. In 'past prints' and 'request list' user can monitor which files are exist in the database.

5.4 Testing Implementation

While making this application we have faced a lot of bugs and overcome all these bugs by updating our project code. After completing our application we have tested it and find out the outcome as we expected. Our application can connect with database and retrieve the data from database to application. Our application also can update an entity in database.

5.5 Test Results and Reports

Some of our mate helps us in testing our application, fortunately they have found our application interesting. They appreciate our features and also liked our user interface. While testing our application we had a question-answer session about our application.

Chapter 6

Conclusion and Future Scope

6.1 Discussion and Conclusion

We developed our project to help the people who are in need to get a printing shop. Our app will provide them an opportunity to get profit by using their printer without having a stall. Our app will allow them to earn just by sitting at home. Our users will get printing in cheaper price and quicker without hassle. User will send request via our app and the print man will use his app to accept the request via our app. The user will send the file link via SMS and deal about the print. We have given the freedom to user and print man to bargain about the price but we will set a minimum price so that no one can ask for unnecessary price or favor. Our app has extra features as a helping hand of both the users of the app. One feature is Notepad, which will store any information if the user wants to remember if needed. Another feature is Application Maker which will help user to make official applications automatically .this way user can easily make Letter/Application easily and send to anyone to print.

6.2 Scope for Further Developments

We have so many features in our application, but also we have some lacking in it. We would like to develop these features in future:

Mapping: now our user have to done his job with only database but with this features our users can see Where an printer is to be shared then they can send request to the nearest person directly. After adding these features our application will be one step ahead than now

Payment method: right now we don't have any online payment method in our application, user need to transact money in hand to hand process, but we are thinking to develop this feature by which it will be more secured and no one will face any fraud user

File sharing: we don't have any storing process in our application, so that we have to share the link of the document, in future we will definitely try to have a storing process in our application.

References

- [1] Uber: available at <<<https://en.wikipedia.org/wiki/Uber>>> last accessed: 31 October 2019
- [2] Pathao: available at<<<https://en.wikipedia.org/wiki/Pathao>>> last accessed: 31 October 2019
- [3] Fiverr: available at<<<https://en.wikipedia.org/wiki/Fiverr>>>last accessed: 31 October 2019
- [4] Draw io, available at<<<https://www.draw.io/>>>last accessed: 31 October 2019
- [5] Firebase database, available at<<<https://firebase.google.com/docs/database/>>>last accessed: 31 October 2019

Print-It,_A_Resource_Sharing_App

ORIGINALITY REPORT

23%	20%	1%	17%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	Submitted to Daffodil International University Student Paper	10%
2	buildfire.com Internet Source	4%
3	dspace.library.daffodilvarsity.edu.bd:8080 Internet Source	2%
4	en.wikipedia.org Internet Source	1%
5	www.printershare.com Internet Source	1%
6	hub.packtpub.com Internet Source	1%
7	www.printeranywhere.com Internet Source	1%
8	whatis.techtarget.com Internet Source	1%
9	Submitted to Texas A & M University, Kingville Student Paper	1%

10	Submitted to GLA University Student Paper	<1%
11	www.documentsystems.com Internet Source	<1%
12	Submitted to University of Bahrain Student Paper	<1%
13	Submitted to Career Education Corporation Online Student Paper	<1%
14	dspace.daffodilvarsity.edu.bd:8080 Internet Source	<1%
15	Submitted to University of Stellenbosch, South Africa Student Paper	<1%
16	Submitted to Gujarat Technological University Student Paper	<1%

Exclude quotes On
Exclude bibliography On

Exclude matches < 10 words