

DONATE FOR SMILE

BY

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

Supervised By

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DAFFODIL INTERNATIONAL UNIVERSITY

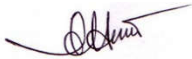
DHAKA, BANGLADESH

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APPROVAL

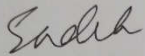
This Project/internship “DONATE FOR SMILE”, submitted by ID: 172- 15-9953, Most. Dilruba Yasmin Dolon, ID: 172-15-9955 to the Department of Computer Science and Engineering, Daffodil International University has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of B.Sc. in Computer Science and Engineering and approved as to its style and contents. The presentation has been held on .

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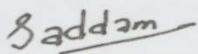
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DECLARATION

We hereby declare that, this project has been done by us under the supervision of **Ms. Afsara Tasneem Misha, Lecturer, Department of CSE** Daffodil International University. We also declare 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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Finally, we must acknowledge with due respect the constant support and patients of our parents.

ABSTRACT

The purpose behind this project is to present an idea of reduce food wastage and help people. Food wastage is a big problem and we need to solve this problem. Every day there are huge amount of food goes to waste. In Bangladesh there are so many poor people suffer from starvation. Every day there are millions of children and adults who do not get food they need to help. We work to get contending food from restaurants, party, manufactures and retailers to people in when they need. At the same time we seek to help the people. This app is for social work. This apps feature is login, registration, donated food receiving. This app is very helpful for poor and helpless people and easy to use. You can donate easily through this app.

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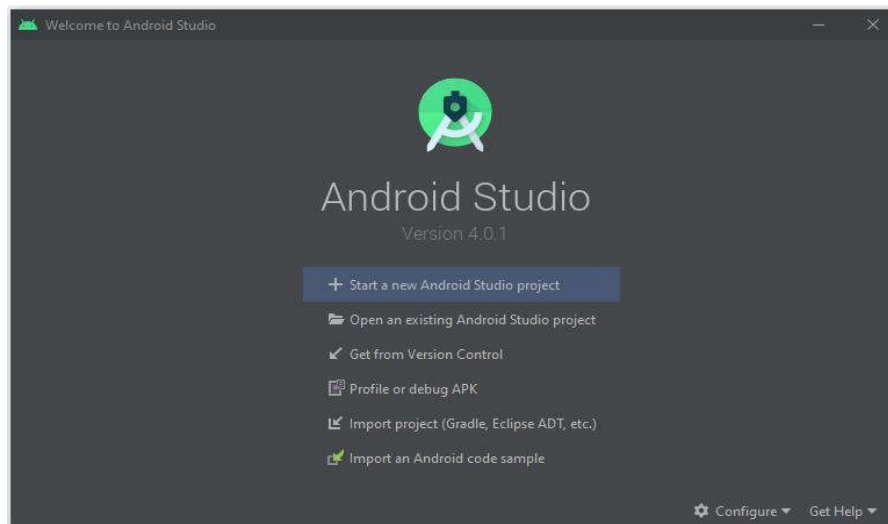
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CHAPTER 1

INTRODUCTION

Introduction

Bangladesh is a small country. There are huge amount of food is thrown away as waste in daily life. The waste of food is approximates 5.5% of the amount of food. Food waste is a big disturbing issue in a poor country like Bangladesh. Canteens, Restaurants, Marriages, Family and social and programs expel out so much food.



Motivation

Now day a huge amount of meals waste in the restaurants, hotels and houses. For all of those problems we make an android app where donor can easily donate foo, money blood and also clothes. And receiver can easily receive the food.

By using this app as a donor the restaurants and programs can be informed as a volunteer can be get information that donor want to donate for helping.

Objectives:

- Easy touse.
- People can easily donate necessary things to helplesspeople.
- Helpless and poor people are getting meals, money clothes and othersthings.
- Easy to supplyfood.
- By using this app we can reduce foodwastage.

ExpectedOutcome

After all hard work we will get the app which is very easy and useful for all kind of people. It will help those who need things most. By this app we can provide help poor women, children and old people and we will reduce wastagefood.

ProjectQuestions

- What kind of data we will be using to complete ourapp?
- How to prepare the applayout?
- Finding out the algorithm behind the analysis of thesystem?

- How to compare the method with other methods in the same fields?
- Who will be the user for the project?
- How can we become Fortunate to use the app?

CHAPTER 2

BACKGROUND

Introduction

Bangladesh is a country that growing as a digital country. Many people are now digital. Our networking system every people use android phone and internet. People want too many things in a short time. They want everything smartly so they use social side. Nowadays every people use smart phone and internet. So this app is helpful for every type of people and they use is easily. This app is easy to use and helps to save your time and food wastage.

Relatedwork

Amp Your Good (United States)

There are many charity android apps but our app is people helping and social working app.

Caritas (Vatican City)

There is lots of donation app in Bangladesh so we are trying our best to reach with people and help them in an easy way. So we can help needy and interested people.

We made this app for all kind of people who really need help. It is a food donation app and also other things donating app. We connect with helpless people through this app. So they can easily eat food. We can reduce number of poor and helpless people. We can make them happy and satisfy by using this androidapp.

Comparatives studies

There are many social working apps we have. Some apps work for donating people or some apps works for helpless people. We use many apps but there are no this kind of apps feature that can help people in a very easy way. So this app is very useful for people who want to donate and also who needs to food and necessary things.

Scope the problem

The concept of the app is very satisfied. We tried to make better concept app. When we make this app we faced lots of problems. The apps gives us many errors. We always try to make this app unique concept and unique feature. First time when we run this app not worked properly. Then it takes much time to fix errors.

Challenges

Challenges that we face

- We faced many problems to complete this project and we try our best to complete this app successfully.
- We learn how to fix errors and complete an app and how to overcome from problems.
- Now two kind of people can use this app. One who wants to donate and another who need food.

CHAPTER 3
REQUIREMENTS SPECIFICATIONS

Introduction

The project contains the model for “DONATE FOR SIMILE” including all the models. This model helps to the viewer to understand the project all the models. This model helps to the viewer to understand the project easily all the models.

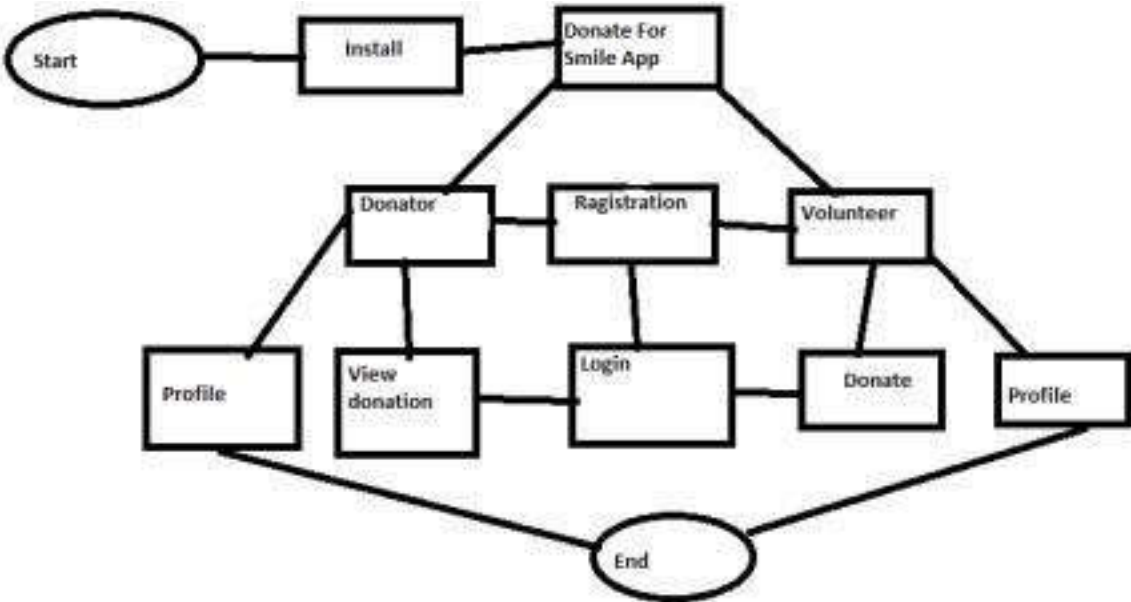


Fig 3.1: Donate For Smile App Model.

This business process model shows apps features like download to install process. It helps to know about the app easily. After seeing tis model we can see how to use this app and how it works.

Requirementcollection

This android studio project has much kind of requirements. This is important to identify project model design and structure so that we can fulfil apps requirements. We worked step by step and make sure there is no problem in the app. We collect lots of information from internet and work our project base of that information. After that we can able to provide a better performance.

Build Settings

After the player Settings, we need to control the settings where we are building this application. This setting is also known as Build Settings.

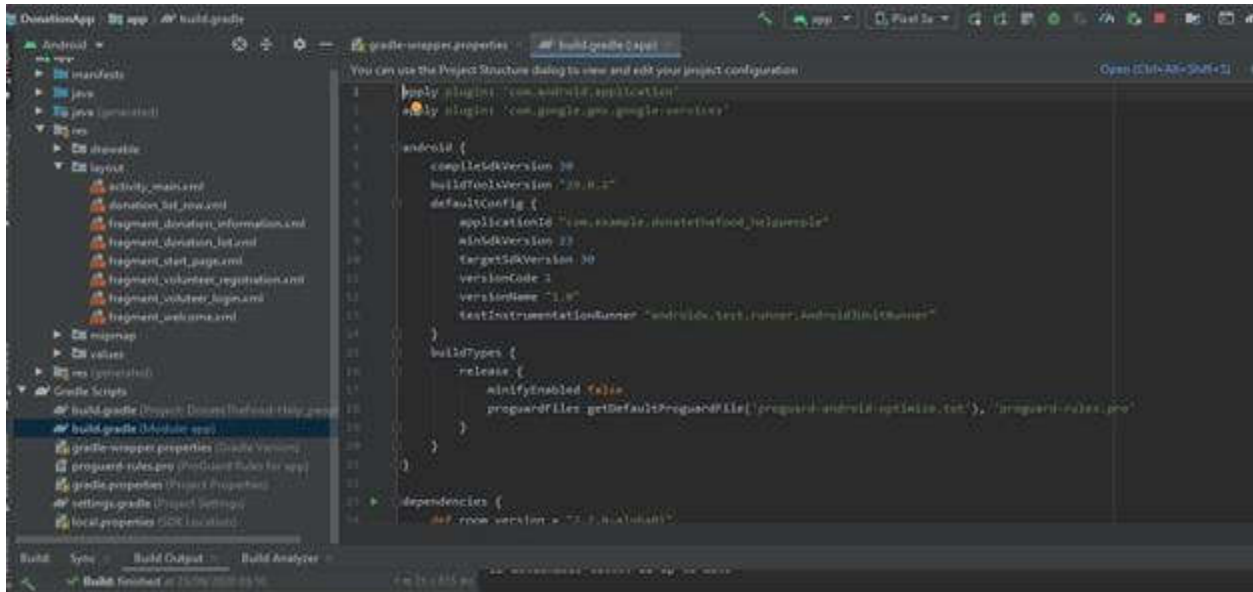


Fig 3.2.1: Build settings of the project.

The following figure represents that we have built the app in Android. As we can see there we use build gradle version 30.

.

Use case modelling

We know that we worked our project step by step. In software engineering all we know to describe a project we use case diagram in our use case diagram we can see the process of our app. First of all donor have to registration for donate then donor can login and post about what he wants to donate. After that he can see what he has donated. Also Volunteer can see what donor has donated and distribute then poor people.

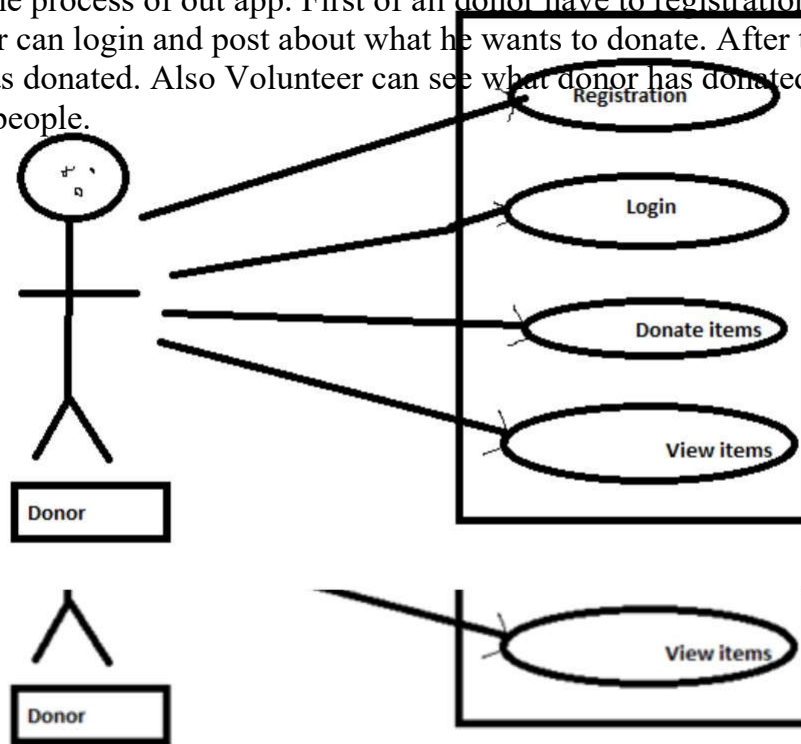


Fig 3.2.2: Use case diagram of donor

Volunteer

In this use case diagram where we use our apps process step by step. firstly volunteer needs to login the app. If volunteer is not complete registration then he/she needs to complete-

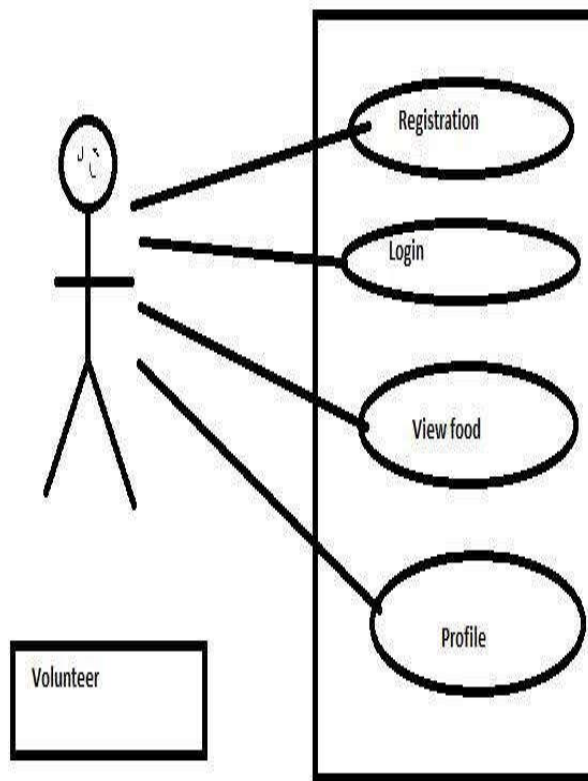


Fig 3.2.3: Use case diagra volunteer

Registration and then he can login thepage.

In this diagram we can see app feature are user friendly. Users all information stored into database. After register into app donors information will store in database also receivers information will store into database. Name, address, phone number, email etc. using this app users information will keep secure and safe.

Design requirement

Donator

Volunteer

Donation posting

View post

View donation

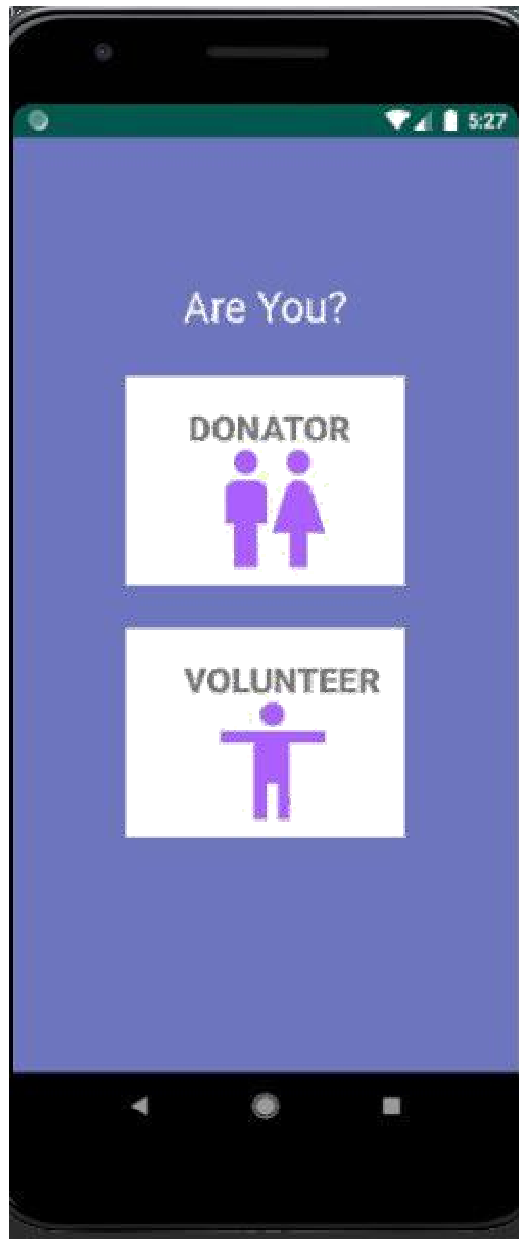


Fig 3.2.3: DonatorVolunteer

Database Implementation

Here we can see our apps database implementation code. The version we used in this app is '1'. We can see donation database extends room database.

```
package com.example.donatethefood_helppeople.donation_database;
import ...
@Database(entities = {InformationModel.class}, version = 1)
public abstract class DonationDatabase extends RoomDatabase {
    private static DonationDatabase db;
    private static final String DB_NAME = "donation.db";
    public abstract IonformationDao getDonationDao();

    public static DonationDatabase getInstance(Context context){
        if (db != null){
            return db;
        }

        db = Room.databaseBuilder(context.getApplicationContext(), DonationDatabase.class, DB_NAME)
            .allowMainThreadQueries()
            .build();
        return db;
    }
}
```

Fig 3.2.4: Codes for database of objects.

Here a function db has been called in the code. With this function users of this app will be able to process the objects.

Database object

As we are working with an object so it is very important that object can fix where we need to store our data and how to secure it.

```
package com.example.donatethefood_helppeople.donation_database;
import ...
@Database(entities = {InformationModel.class}, version = 1)
public abstract class DonationDatabase extends RoomDatabase {
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        if (db != null){
            return db;
        }

        db = Room.databaseBuilder(context.getApplicationContext(), DonationDatabase.class, DB_NAME)
            .allowMainThreadQueries()
            .build();
        return db;
    }
}
```

Fig 3.2.5: Code for Database object.

Database Platform



Firebase

Firestore Database

Firestore platform is developed by Google for helping and creating mobile application.

for config our app we use google-service.json. we use the individual instructions for each module: FirebaseAuth, Firestore, Firestore database, Firestore storage.

Database Interface Information

Here we can see code of database interface information code. Each FirebaseDatabase has a transitive dependency on the appropriate Firebase SDK.

```
@Override
protected SupportSQLiteOpenHelper createOpenHelper(DatabaseConfiguration configuration) {
    final SupportSQLiteOpenHelper.Callback _openCallback = new RoomOpenHelper(configuration, new
    @Override
    public void createAllTables(SupportSQLiteDatabase _db) {
        _db.execSQL("CREATE TABLE IF NOT EXISTS `tbl_Donation` (`DonationId` INTEGER PRIMARY KE
        _db.execSQL("CREATE TABLE IF NOT EXISTS room_master_table (id INTEGER PRIMARY KEY,ident
        _db.execSQL("INSERT OR REPLACE INTO room_master_table (id,identity_hash) VALUES(42, 'b3
    }

    @Override
    public void dropAllTables(SupportSQLiteDatabase _db) {
        _db.execSQL("DROP TABLE IF EXISTS `tbl_Donation`");
    }

    @Override
    protected void onCreate(SupportSQLiteDatabase _db) {
        if (mCallbacks != null) {
            for (int i = 0, _size = mCallbacks.size(); i < _size; i++) {
```

Fig 3.2.6: Database Interface Information code

The code declared db-execSQL. For implementation we use 'com.firebase-ui-database: 6.3.0', firestore : 6.3.0

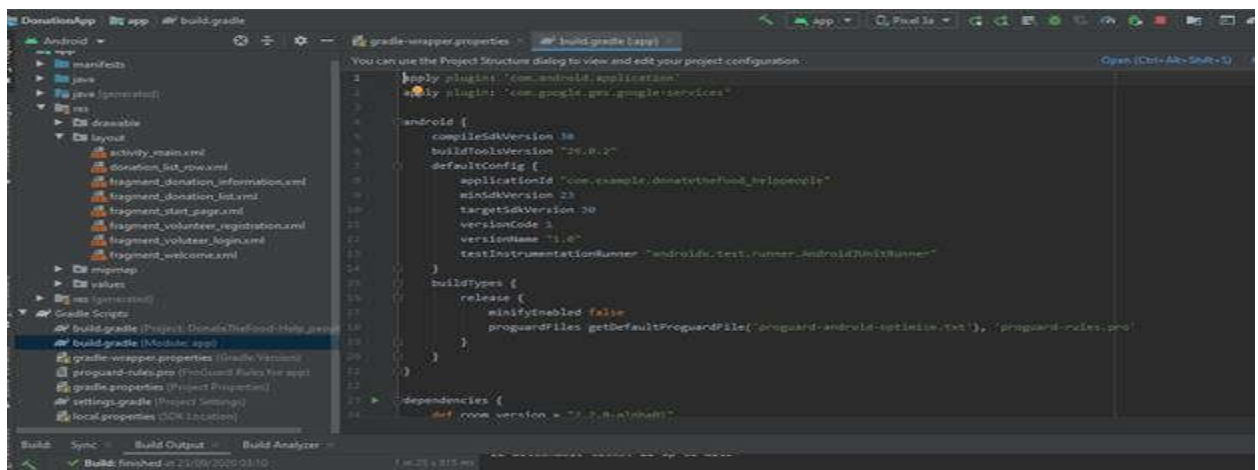


Fig 3.2.7: Implementation of database.

Here is the following figure we Written a code for Implementation of database.

Button Design

Here you can see our apps login registration button design layout. For design we use many activity like activity main, donation list, fragment donation, fragment start page etc.

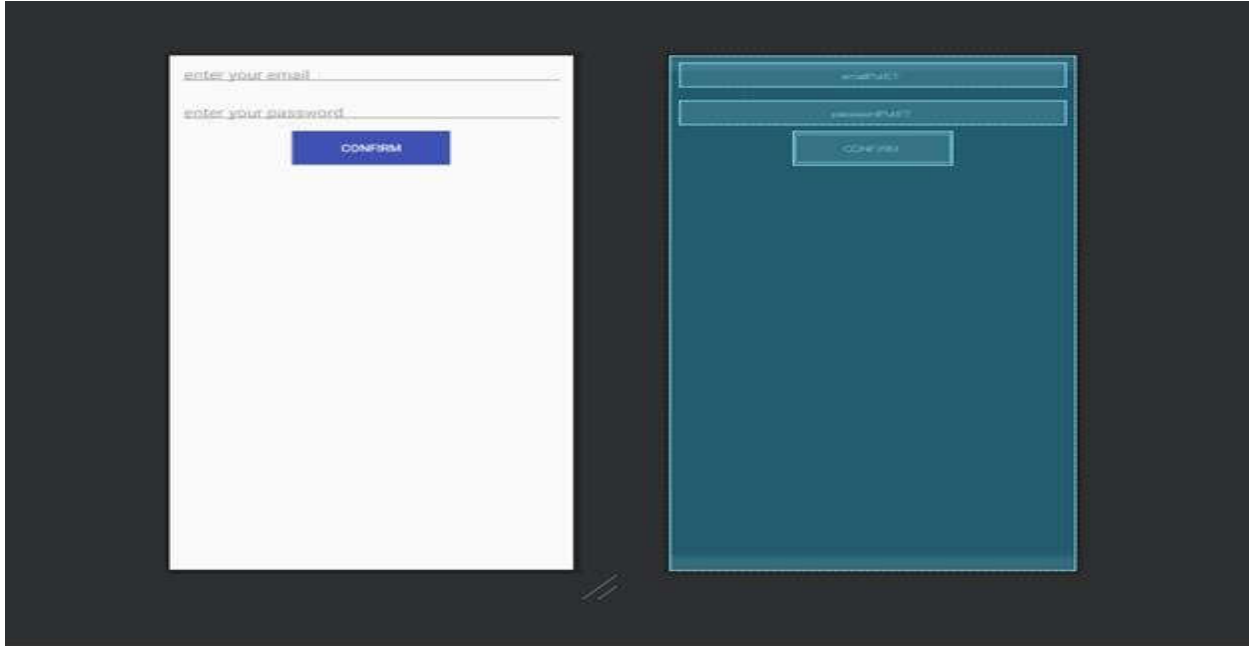


Fig 3.2.8: Button design.

Here is the main page we use for button. We design it very easily that is the advantage.

We have done our design first. Next we see our design code. It shows how to create a design perfectly. Match parent contains the whole design. We use for layout is linear layout, relative layout, image view text view etc.


```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    tools:context=".ui.VolunteerRegistrationFragment">
    <EditText
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_margin="10dp"
        android:padding="5dp"
        android:hint="enter your email"
        android:inputType="textEmailAddress"
        android:id="@+id/emailPutET"/>
    <EditText
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_margin="10dp"
        android:padding="5dp"
        android:hint="enter your password"
        android:inputType="textEmailAddress"
        android:id="@+id/passwordPutET"/>
    <Button
        android:id="@+id/signUpOk"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"

```

Fig 3.2.9: Button code.

We can see in our figure that how we fix our apps width and height by using wrap content. Layout margin fix 10dp.

Fragment donation

We can see fragment donation code xml version is 1.0 and utf is 8. Android id in linear layout is @+id/name and orientation

```
donation_list_row.xml × fragment_donation_information.xml × build.gradle (DonateTheFood-Help pe
1 <?xml version="1.0" encoding="utf-8"?>
2 <RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
3     xmlns:tools="http://schemas.android.com/tools"
4     android:layout_width="match_parent"
5     android:layout_height="match_parent"
6     android:layout_margin="10dp"
7     tools:context=".ui.DonationInformationFragment">
8     <LinearLayout
9         android:id="@+id/name"
10        android:layout_width="match_parent"
11        android:layout_height="wrap_content"
12        android:orientation="vertical">
13        <TextView
14            android:layout_width="wrap_content"
15            android:layout_height="wrap_content"
16            android:layout_marginRight="10dp"
17            android:text="Name"
18            android:textColor="#3F51B5"
19            android:textAllCaps="true"
20            android:textSize="18sp" />
21
22        <com.google.android.material.textfield.TextInputLayout
23            android:layout_width="match_parent"
24            android:layout_height="match_parent">
```

Fig 3.2.110: Code for fragment donation.

Build Gradle Version

There are some common materials are the project for almost every code. our apps build gradle version is 30.

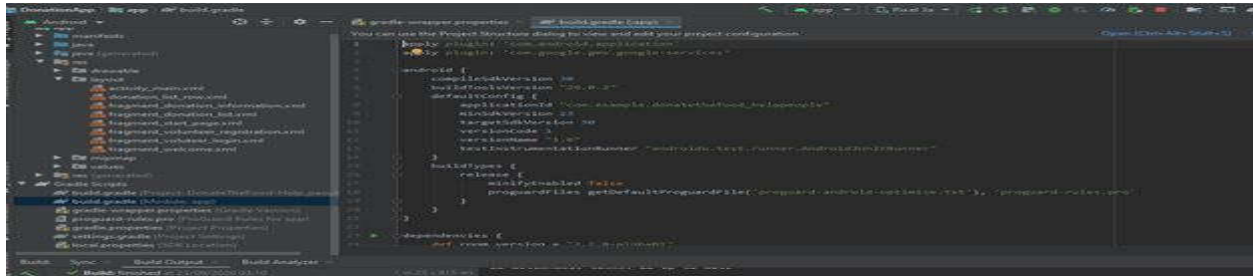


Fig 3.2.11: Build Gradle Version code.

Here the following figure, there we can see app gradle versions. We can control latest version by editing version number. We use 2 dependencies here one is com.android.tools.build:gradle:4.0.1 and another is com.google.gms:google-services:4.3.2

Build Module App

As we can see we fix our module version and that is. Build tool version is 29.0.2, version code is 1 and SDK version is 23.



Fig 3.2.12: Build Module App.

Without version control we cannot build and run project. So it is important to control versions.

Donation List Activity

We design our donation list activity to see what donator is donated. Also we can see the picture of donated food, donated item name, quantity, date and address.

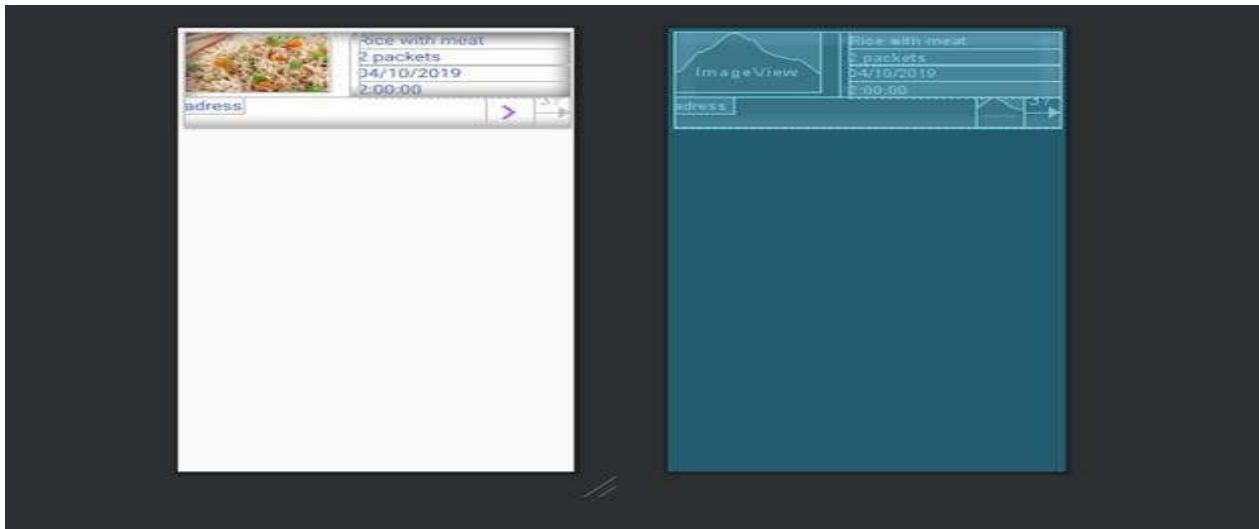


Fig 3.2.13: Donation List Activity Design.

After seeing this volunteer collect that item and distribute into poor and helpless people. We design it for reason of volunteer that he can easily see the list.

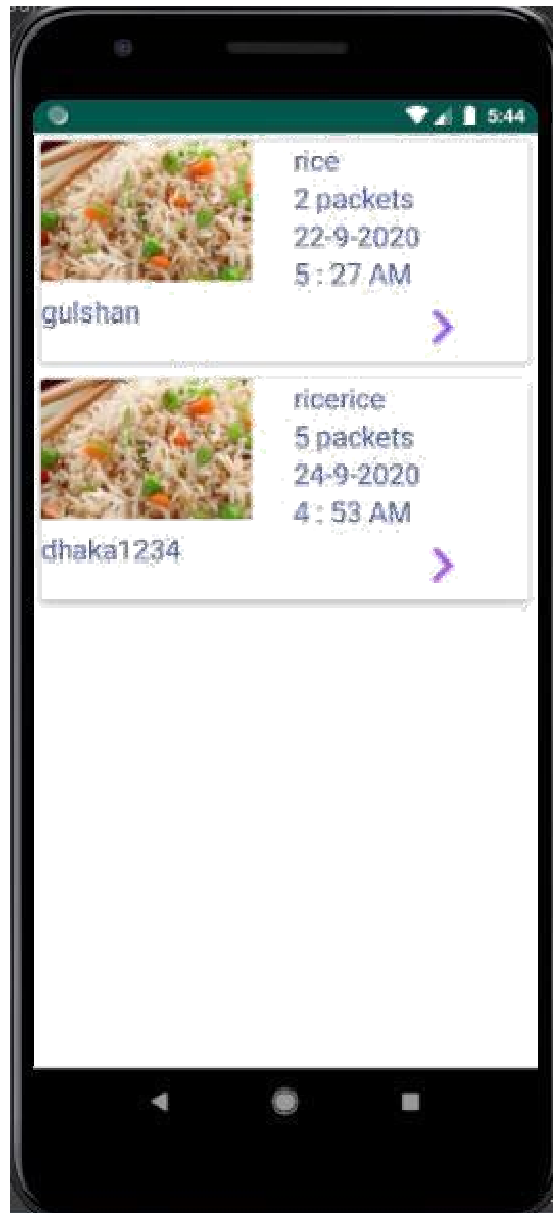


Fig 3.2.14: List of donated food.

Whenever donator donates foods it recorded. After login app volunteer can see the list of donated items and distribute them quickly.

Donation adapter

We use adapter in our code to see donated items. Usually adapter is use for only this reason. Here we can see donation adapter extends recycle view.

```
public DonationAdapter(Context context, List<InformationModel> modellist) {
    this.context = context;
    this.modellist = modellist;
}

@NonNull
@Override
public DonationListViewHolder onCreateViewHolder(@NonNull ViewGroup parent, int viewType) {
    View view = LayoutInflater.from(context).inflate(R.layout.donation_list_row, parent, attachToRoot: false);
    return new DonationListViewHolder(view);
}

@Override
public void onBindViewHolder(@NonNull DonationListViewHolder holder, int position) {
    final InformationModel model = modellist.get(position);
    holder.foodName.setText(modellist.get(position).getFoodName());
    holder.foodQtn.setText(modellist.get(position).getQuantity());
    holder.cDate.setText(modellist.get(position).getDate());
    holder.cTime.setText(modellist.get(position).getTime());
    holder.dAddress.setText(modellist.get(position).getAdress());
}
```

Fig 3.2.15: Donation adapter code.

Here we can see donation list view code where item views are food name, foodqtn, cdate, ctime and address. Donation list holder extends recycleview.

```
@Override
public int getItemCount() { return modellist.size(); }

public class DonationListViewHolder extends RecyclerView.ViewHolder {
    TextView foodName, foodQtn, cDate, cTime, dAddress;

    public DonationListViewHolder(@NonNull View itemView) {
        super(itemView);
        foodName = itemView.findViewById(R.id.foodNameTV);
        foodQtn = itemView.findViewById(R.id.foodQunatityTV);
        cDate = itemView.findViewById(R.id.collectionDateTv);
        cTime = itemView.findViewById(R.id.collectionTimeTv);
        dAddress = itemView.findViewById(R.id.addressTV);
    }
}
```

Fig 3.2.16: Donation List View Holder code.

To see following figure we can understand which reason why we use list view and item view.

```
@Entity(tableName = "tbl_Donation")
public class InformationModel {
    @PrimaryKey(autoGenerate = true)
    private long DonationId;
    private String donatorName;
    private String phone;
    private String address;
    private String foodName;
    private String quantity;
    private String date;
    private String time;

    public InformationModel(String donatorName, String phone, String adress, String foodName, String quantity, String date, String time) {
        this.donatorName = donatorName;
        this.phone = phone;
        this.address = adress;
        this.foodName = foodName;
        this.quantity = quantity;
        this.date = date;
        this.time = time;
    }
}
```

Fig 3.2.17: Information model Code

Challenges

We face huge challenges in this project. We face problem in coding part. We faced a lot of problem like-

- It takes lots of time to find out where is the error.
- As we no android studio gradle version updates very quickly, for gradle version control we couldn't sync our project easily.
- Android studio software takes huge space like RAM. For this reason some time it takes much time to load and build the project.
- It is very hard to find out problem and error and fix it.
- There is huge library in android studio for that reason we face some problem.

CHAPTER 4

DESIGN SPECIFICATIONS

Introduction

In this chapter we will discuss about our design and final outcomes. We can see here our Front end design and Back end design. To create this project we use two languages. One is XML and another is Java. XML is for app designing.

Front-end Design

Here we discuss about Front end design of our app. We can see figure that there are two user options. One is Donator and another is Volunteer. Those who want to donate something will choose donator part and who will distribute the food will choose Volunteer.



Fig 4.2.1: Donator and Volunteer page

NAME
bipasha akter

PHONE
017xxxxxxxx

ADDRESS
29 gulshan.Dhaka-1207

FOOD NAME
Rice

FOOD QUANTITY 1 packet

collection date

collection time

CONFIRM CANCEL

Fig 4.2.2: Donation process.

When user choose donation process he/she will see the page like this and he needs to provide name, address, phone number, food name, quantity, date and time.after that user needs to confirm donation.

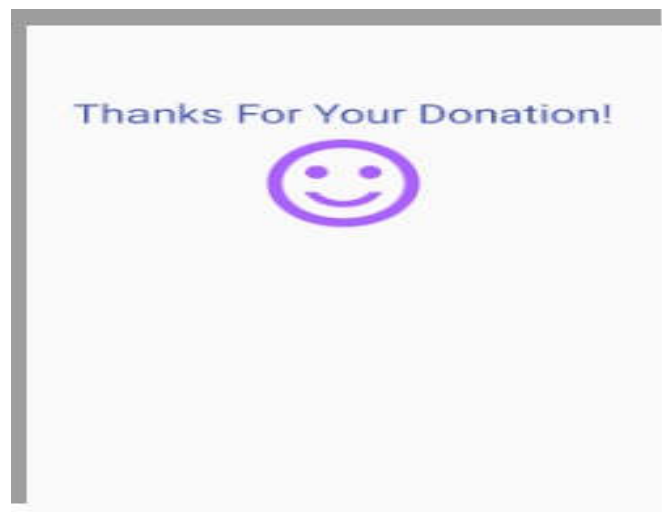


Fig 4.2.3: Notification page.

After donation food user will get a notification. The notification is like ‘Thanks for your donation’

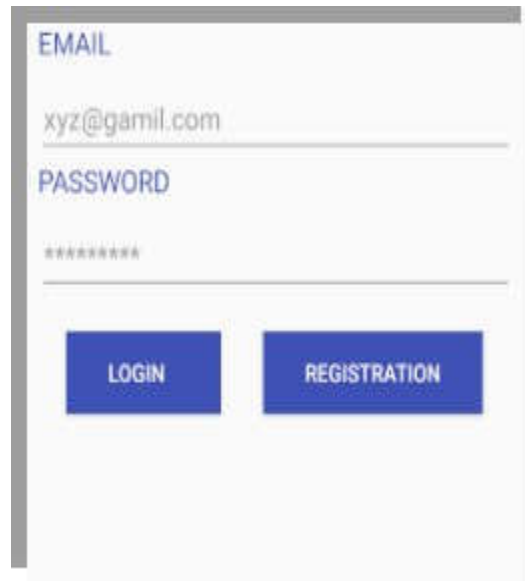
A screenshot of a login page. It features two input fields: one for 'EMAIL' containing 'xyz@gamil.com' and one for 'PASSWORD' containing '*****'. Below the fields are two blue buttons labeled 'LOGIN' and 'REGISTRATION'.

Fig 4.2.3: Login Page.

To see what donator is donated volunteer needs to login first. After login volunteer can see number of donation and list of items.

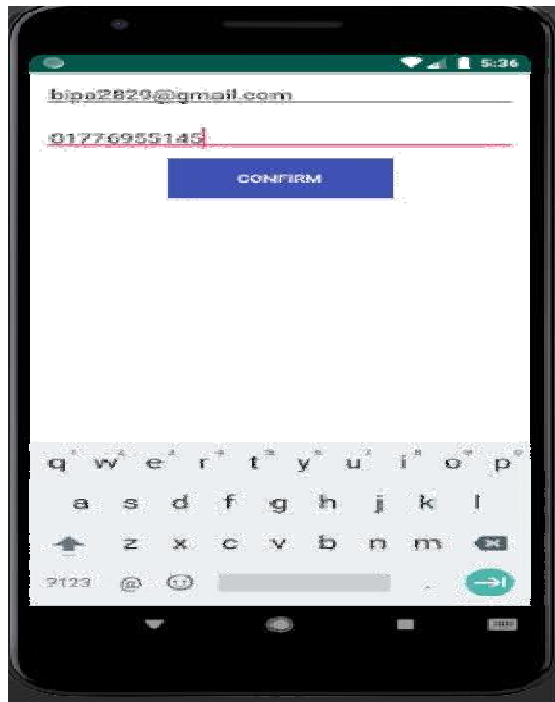


Fig 4.2.4: Registration page

If user cannot go to login then user need to complete registration first after that user can login the page. To registration user need to provide user email and user password.

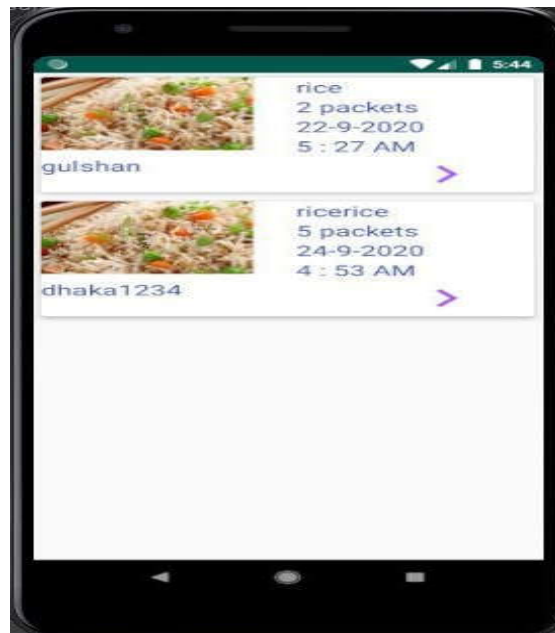


Fig 4.2.5: View Post Page

After login user can see how many people donate food and what the items are. Volunteer will see donation details and pick them and distribute them to needy helpless people.

Back-end Design

Back end is not visible for user. In the app. The back end service for the user. It works in the background of the app. Give service to the user. By using android studio we can build easily back end design.

Discussion

First we need to develop the Front end design for the app. We need some tools like android studio and java development kit, Programming language, Firebase database. In future we add more flexible features for user. We want to add cloth donate option money donate option and much more.

CHAPTER 5

CONCLUSION AND FUTURE APP

CONCLUSION

We tried to our best to finish this app successfully. First we only started it by login page and then we add more features. After that now we can view post, we can login, we can donate. We added flexible feature so that user can use it very easily. This app is very useful now. Now we can donate things easily by using this app.

Future scope

An android app can be developing more and more day by day. So we have no limitation for develop the app. As a developer we will make this app more flexible and user friendly. We will add more features like blood donation, cloth donation, money donation and other things. We shall try to add these features in this app.

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PLAGIARISM REPORT

ORIGINALITY REPORT

11 %	2 %	0 %	10 %
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	Submitted to Daffodil International University Student Paper	9
2	Submitted to University of South Florida Student Paper	1
3	Billy Grados, Hector Bedon. "Chapter 12 Software Components of an IoT Monitoring Platform in Google Cloud Platform: A Descriptive Research and an Architectural Proposal", Springer Science and Business Media LLC, 2020 Publication	<1

