



IMPLEMENTATION OF DIGITAL BAKERY SHOP

Pankaj Vhatkar^a, Umer Mujawar^a, Krishna Rupani^a, Sneha Jagmalani^a, Deepak Dattawadkar^b

^a *Students, Sanjay Ghodawat Polytechnic, Atigre, Kolhapur, Maharashtra, India*

^b *FACULTY, Sanjay Ghodawat Polytechnic, Atigre, Kolhapur, Maharashtra, India*

ABSTRACT

A digital bakery shop that allows consumers to browse and buy a variety of bakery products online. A list of bread things is organised by category in this project. To find what they're looking for, the user can arrange the products into categories. If a customer loves a product, he can add it to his shopping cart. To check out, a user needs first create an account on the website. He can use the same login and password the next time he checks in. He now has the option of paying with a variety of cards, UPI, or cash. After a successful purchase, the user receives a copy of the shopping receipt by email and mobile. Front-end refers to a user-friendly interface.

Keywords: *UPI.*

1. MAIN TEXT

INDIA is one of the world's most important marketing centres. In recent decades, both production and consumption in India have increased substantially, and it is vital that we provide our consumers with the best possible experience. When people go shopping, they find it difficult and exhausting to find what they want. Due to long and crowded billing counters, shopping takes a long time. Thanks to technological improvements, mobile smartphones are no longer just for making calls or sending text messages. They've become our e-commerce site, communication centre, entertainment portal, wallet, and access to real-time information tailored to our needs.

2. LITERATURE REVIEW

Going online is an excellent way of scaling up and spreading the customer base. Statistics show that the number of people buying online is steadily increasing and so is the volume of transactions happening online. Dominos app for example, shows that it is possible to sell products online, which is considered as something that "need to touch, feel and see" before buying. The internet unable to replicate the sensory experience but it brings in lot of other benefits like ease of shopping, more choices, and save the customers time and etc.

Online shopping is becoming trend nowadays. People like online shopping compared to the traditional way to save their cost and time. Cakes By Fara (CBS) is an online bakery ordering system where various types of cakes are the main product to sell online. The paper is aiming to develop a web based online bakery system using Short Message Service (SMS) as well as email notification technology for order confirmation, order status notification and verify of customer's status of registration. There are three main users for the system which are registered customer, non-registered customer and administrator. Registered customers have more privilege in the system compared to non registered customers as they able to purchase the product online and received the notification through email and SMS. Rational Unified Process (RUP) methodology is used to develop the system.

Basically, most of the online sales applications have the similarities to each other but it depends to the developer, what method and tools that they are going to apply and use, and sometimes the system owner point of views were counted in making the decisions. For example the Duke's bakery house, the tools and method that they used are as the following.

Having an online food ordering system for your bakery has its own perks. A major one being, zero commissions to third-party food aggregators. You'll have your bakery's own website and mobile App. This will give you room to showcase your brand better. There will be no restrictions or guidelines that you'll be bound by. You can update and regulate your bakery's menu as and when required with just a few clicks.

3. OBJECTIVE AND SCOPE OF PROJECT

3.1 OBJECTIVE

- To promote the products and easy shopping to save customers time.
- A secure online transaction system that allow customer to purchase products safely using various cards or UPI.
- Database to store all the customers information, products detail price and stocks availability.
- A Simple Graphical User Interface (GUI) will be developed, by which data from the application can be easier and reliable to access by users over an Internet connection.

3.2 SCOPE OF PROJECT

The Digital Bakery shop android application is basically developed to promote online shopping of bakery products and convenience of customers as they can shop from any place. The main purpose of this application is to make transactions faster with accuracy. Hence we can say that, this is a fast and flexible process to shop bakery products through an android application.

4. XML LANGUAGE

XML stands for Extensible Markup Language, which gives us a clue to what it does. A markup language is slightly different from a programming language. Whereas a programming language (C#, C++, Java, Kotlin, Python, BASIC) will allow you to define behaviors, interactions, and conditions; a markup language is used more to describe data, and in this case, layouts. Programming languages create dynamic interactions, whereas markup languages generally handle things like static user interfaces.

When you create a new project in Android Studio, you will be greeted by a hierarchy of different files and folders, which can be a little daunting for complete beginners. It's a rather jarring introduction to XML.

XML describes the views in your activities, and Java tells them how to behave. To make changes to the layout of your app then, you have two main options.

The first is to use the Design view. Open up the activity_main.xml file in Android Studio and get your first introduction to XML. You'll notice there are two tabs at the bottom of that window: Design and Text. The Text view will show you the actual XML code, but the Design view will let you manually edit the layout by dragging and dropping elements into the render of your activity.

XML files can also help store strings. Using the Design view is easier for beginners, though it can lead to complications. For one, you will run into the limitations of XML early on when the designer refuses to let you drop items into specific places. Without the knowledge of why, this can make designing your app an exercise in frustration!

5. DEVELOPMENT

5.1 Java

Android development is a popular buzz in the Java programming world. It's Android, which keeps Java at the forefront of the last couple of years. Now, How important is it to understand or learn Android for Java programmers? Well, it depends on, if you like application development and wants to reach a mass, Android offers that opportunity to you. Millions of Android phones are available and they keep increasing, with pace, much higher than iPhone or iOS. What all this means is, it does make a lot of sense to learn Android programming for Java programmers, and this article is about that, but this is also one of the good reasons to learn Java programming. This tutorial will give you a basic idea of How Android works? not detailed but a good overview.

One distinct advantage Java programmers have over others is that Android API is much like Java API, though Android doesn't support all classes available in J2SE SDK, it supports critical ones. Another advantage is that you can use the same tools as IDE like Eclipse or Android Studio if you are an IntelliJIDEA fan to develop Android applications, Google provides an Eclipse plug-in for Android development.

If you are familiar with Linux and the concept of process, then it's easy to understand how android applications run. By default, Each Android application is assigned a unique user id by the Android operating system. After starting an android application, they run in their own process, inside their own virtual machine. How Android works , app runs on device from Java programmers Android operating system manages the starting and shutting down the application process, whenever required. This means each android application runs in isolation with others, but they can certainly request access to hardware and other system resources. If you are familiar with mobile application development, maybe in J2ME, then you may know about permissions. So when an android application is installed or started, it requests the necessary permission required to connect to the internet, phone book, and other system resources. The user explicitly provides grant these permissions, or it may deny. All these permissions are defined in the manifest file of the Android application. Unlike the Java Manifest file, the Android manifest is an XML file, which lists all the components of apps, and settings for those components. Four major components of Android application development is Activities, Services, Content Providers, and Broadcast Receivers. Activity is most common of them, as it represents a single screen in Android Application. For example, in an Android Game, you can have multiple screens for login, high score, instructions, and game screen. Each of these screens represents different Activities inside your app.

6. UML DIAGRAMS

6.1 Flowchart

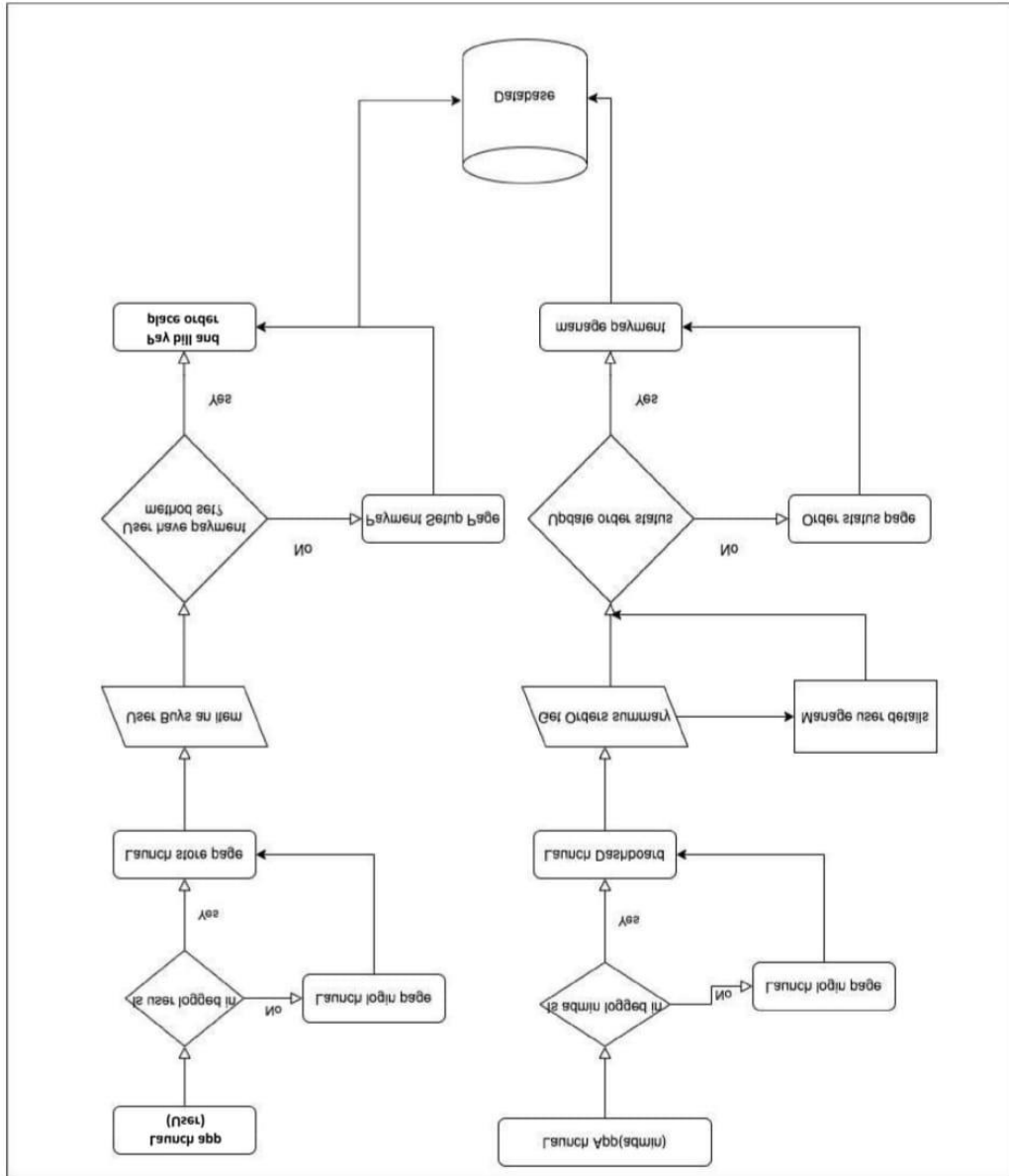


Fig 6.1.1 FLOWCHART

6.2 Use case diagram

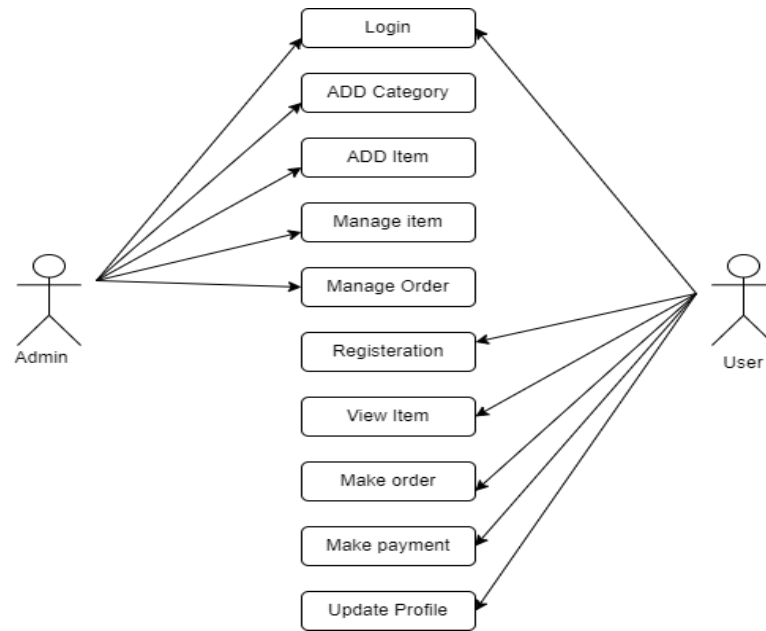


Fig 6.2.1 USECASE DIAGRAM

7. SYSTEM CODING

```
package com.example.digital_docs;

import android.app.AlertDialog;
import android.content.DialogInterface;
import android.content.Intent;
import android.os.Bundle;
import android.view.Menu;
import android.view.MenuItem;
import android.view.View;
import android.widget.Button;
import android.widget.TextView;

import androidx.annotation.NonNull;
import androidx.appcompat.app.AppCompatActivity;
import androidx.appcompat.widget.SearchView;
```

```
import androidx.appcompat.widget.Toolbar;
import androidx.drawerlayout.widget.DrawerLayout;
import androidx.navigation.NavController;
import androidx.navigation.Navigation;
import androidx.navigation.ui.AppBarConfiguration;
import androidx.navigation.ui.NavigationUI;

import com.example.digital_docs.Admin.Admin_Main;
import com.example.digital_docs.domain.orders;
import com.google.android.material.navigation.NavigationView;
import com.google.firebase.auth.FirebaseAuth;
import com.google.firebase.auth.FirebaseUser;
import com.google.firebase.database.DataSnapshot;
import com.google.firebase.database.DatabaseError;
import com.google.firebase.database.DatabaseReference;
import com.google.firebase.database.FirebaseDatabase;
import com.google.firebase.database.ValueEventListener;
import com.google.protobuf.StringValue;

import java.text.SimpleDateFormat;
import java.util.Date;
import java.util.Locale;

public class MainActivity extends AppCompatActivity {

    private AppBarConfiguration mAppBarConfiguration;

    DatabaseReference databaseUsers;

    FirebaseAuth mAuth;

    NavController navController;
```

```
@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
    mAuth = FirebaseAuth.getInstance();
    FirebaseUser user = mAuth.getInstance().getCurrentUser();
    if (user == null) {
        startActivity(new Intent(getApplicationContext(), LoginActivity.class));
    }
    NavigationView navigationView = findViewById(R.id.nav_view);
    View headerView = navigationView.getHeaderView(0);
    TextView name = (TextView) headerView.findViewById(R.id.Name);
    TextView email = (TextView) headerView.findViewById(R.id.Email);
    if (user != null) {
        String emaila = user.getEmail();
        email.setText(emaila);
        FirebaseDatabase database = FirebaseDatabase.getInstance();
        databaseUsers =
database.getReference("user").child(mAuth.getUid()).child("User Details");
        databaseUsers.addValueEventListener(new ValueEventListener() {
            @Override
            public void onDataChange(@NonNull DataSnapshot snapshot) {
                for(DataSnapshot ds: snapshot.getChildren()){
                    String username = ""+ds.child("fname").getValue();
                    name.setText(username);
                }
            }
        })
    }
    @Override
```

```
        public void onCancelled(@NonNull DatabaseError databaseError) {
            }
        });
    }

    Toolbar toolbar = findViewById(R.id.toolbar);
    setSupportActionBar(toolbar);

    DrawerLayout drawer = findViewById(R.id.drawer_layout);
    mAppBarConfiguration = new AppBarConfiguration.Builder(
        R.id.nav_home,R.id.nav_orders, R.id.nav_gallery, R.id.nav_slideshow,
R.id.logout)
        .setDrawerLayout(drawer)
        .build();

    navController = Navigation.findNavController(this, R.id.nav_host_fragment);
    Bundle extras=getIntent().getExtras();
    if(extras != null) {
        String s = getIntent().getStringExtra("order_details");
        if (s.equals("nav_orders")) {
            navController.navigate(R.id.nav_orders);
        }
    }

    NavigationUI.setupActionBarWithNavController(this, navController,
mAppBarConfiguration);

    NavigationUI.setupWithNavController(navigationView, navController);
}

@Override
public boolean onCreateOptionsMenu(Menu menu) {
    getMenuInflater().inflate(R.menu.main, menu);
    getMenuInflater().inflate(R.menu.admin_panel, menu);
}
```

```
        if (
mAuth.getInstance().getCurrentUser().getUid().equals("5GAn7SGoewaMov85oxw3QW1sJrQ2")
) {

            MenuItem admin_panel = menu.findItem(R.id.admin_panel);

            admin_panel.setVisible(true);

            admin_panel.setOnMenuItemClickListener(new
MenuItem.OnMenuItemClickListener() {

                @Override

                public boolean onOptionsItemSelected(MenuItem menuItem) {

                    startActivity(new Intent(getApplicationContext(),
Admin_Main.class));

                    return false;

                }

            });

        }

        return true;

    }

    @Override

    public boolean onSupportNavigateUp() {

        NavController navController = Navigation.findNavController(this,
R.id.nav_host_fragment);

        return NavigationUI.navigateUp(navController, mAppBarConfiguration)
            || super.onSupportNavigateUp();

    }

    public void profile(MenuItem item) {

        startActivity(new Intent(getApplicationContext(), UpdateProfile.class));

    }

    public void cart(MenuItem item) {
```



```
startActivity(new Intent(getApplicationContext(), CartActivity.class));
}
@Override
public void onBackPressed() {
    String s= String.valueOf(navController.getCurrentDestination().getLabel());
    System.out.println(s);
    if (s.equals("Home")) {
        new AlertDialog.Builder(this)
            .setTitle("Really Exit?")
            .setMessage("Are you sure you want to exit?")
            .setNegativeButton("No", null)
            .setPositiveButton("Yes", new DialogInterface.OnClickListener() {
                public void onClick(DialogInterface arg0, int arg1) {
                    MainActivity.super.onBackPressed();
                    moveTaskToBack(true);
                }
            }).create().show();
    } else {
        navController.navigate(R.id.nav_home);
    }
}
}
```

8. SCREENSHOTS



Fig 8.1 Splash Screen

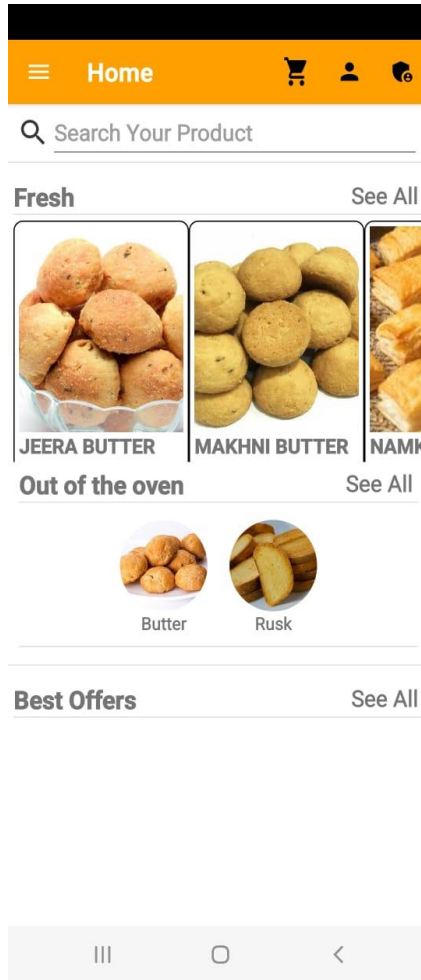


Fig 8.2 Home Page



Fig 8.3 Admin Panel



Fig 8.4 Add Product Page

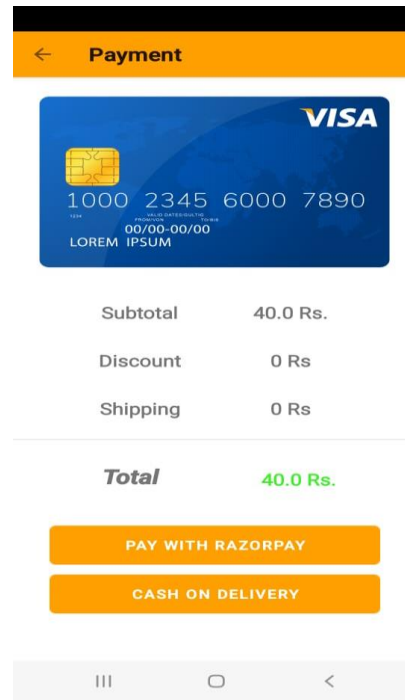


Fig 8.5 Payment Page

8. CONCLUSION

The project aims to introduce android augmented reality technology into the bakery retailing business and investigate its benefits on consumer behaviour, which should help bakers improve their marketing and sales tactics. After testing the mobile augmented reality application on a variety of consumers, the goal was achieved since the app's user interface is acceptable and user pleasant. To create this application, we used a variety of Java ideas. This makes programmes more dependable, quick, and user-friendly. Any bakery item can be purchased from any location. Admins, on the other hand, may control the business from anywhere. Admin will find it easier to store bakery goods and bills using a firebase database. This software will be able to handle the full bakery operation.

REFERENCES

- [1] "Recommending Products to Customers Using Opinion Mining of Online Product Reviews and Features," International Conference on Circuit, Power, and Computing Technologies, Venkata Rajeev P, Smrithi Rekha V.
- [2] "Performance study of classification algorithms for consumer online shopping attributes and behaviour using data mining," Fifth International Conference on Communication Systems and Network Technologies, Rana Alaa El-DeenAhmeda, M.Elemam.Shehaba, ShereenMorsya, NermeenMekawiea Arab academy for science and technology (AASTMT).
- [3] "Online meal ordering system with brief message notification," International Journal of Emerging Research in Management and Technology, Noorfa H. Mustaffa*, NurFarahin A. Razak, Nor Haizan M. Radzi, RoselinaSallehhuiddin, Erne N. Bazin.
- [4] Department of Information Management, Chung Hua University, Hsinchu, Taiwan. Ming-Hsiung Ying*, Yeh-Yen Hsu "commodity search engine for online shopping based on ontology and web mining."