CALL EXPRESS

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ABSTRACT

THIS PROJECT AIMS TO DEVELOP A MOBILE APPLICATION THAT CAN DO AN APPOINTMENT TO SEND A PARCEL BY EACH OF PARCEL DELIVERY COMPANY WILL RECEIVE CUSTOMER'S PARCEL AT THEIR LOCATION BECAUSE SOMETIME CUSTOMER DON'T HAVE TIME TO SEND AT POST OFFICE OR THEY CANNOT GO OUTSIDE TO SEND IT. THEREFORE OUR PROJECT WILL SOLVE THIS PROBLEM BY PROVIDE MANY PARCEL DELIVERY COMPANY FOR CUSTOMER TO CHOOSE ANY COMPANY THEY NEED THAT WOULD BE REDUCE THE TIME AND CONVENIENT TO USE FOR THEM.

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CHAPTER 1
INTRODUCTION

This project is a Call Express Application. For those who want to use this service, they can book the date and time that they want to use by themselves within our application.

1.1 Motivation

Nowadays, most people do their activities online and what stands out the most is selling on online platforms. When a seller receives an order from a customer, it must pack it and take it out to the **post office** for delivery to the customer. So, we want to do an application that calls for a car from the post office to pick up the parcel at the seller's house for delivery to the post office. The seller will use this service through the application and do not have to go out to deliver the parcel themselves.

1.2 Problem Statement

- The seller has a problem with shipping because some people have a lot of products that need to be sent by yourself which will be inconvenient.
- The post office that you want to use may be far from your home, so it's not easy to go.
- During Covid-19 situation, people don't want to send a parcel to meet many people outside their home.

1.3 Objectives of the Project

Our objective of this project is to have a convenience service for customers who want to send the parcel at their location.

- Convenience service (application)
  - We will provide all of the parcel delivery companies.
  - Customers can choose any parcel delivery company that they need to send their parcel.
- Customers can make an appointment anywhere and anytime.

1.4 Scope of the Project

In the past covid situation, there are more sellers or those who want to send parcels, so there are many problems in sending parcels, whether it's self-delivery that is far from home or with a lot of parcels causing inconvenience. Therefore, we want to have an application for calling the parcel delivery service to pick up parcels from the seller to the home to reduce the travel time and convenience of using the service.

- Application
    - Do an appointment
    - Pay shipping

1.5 Expected Benefits

- Convenient for those who want to go out to send parcels.
- Reduce leaving home or crowded people in the situation of covid.
- Reduce transportation costs

1.6 Organization of the Document

This document consists of 6 chapters including:

1. Introduction – We need to make an application about calling a car to pick up parcels to take to the post office center in order to facilitate the user to deliver parcels.
2. Background – Our application is about making an appointment with a parcel delivery company to receive the parcel at home/ work address.

CHAPTER 2
BACKGROUND

This chapter illustarates the review of the application that will be used to implement Call express application

2.1 Literature Review

We are studying about Flutter in our studies. We will use Android Studio to write code and run programming in accordance with our project. So, we can optimize the system for our application.

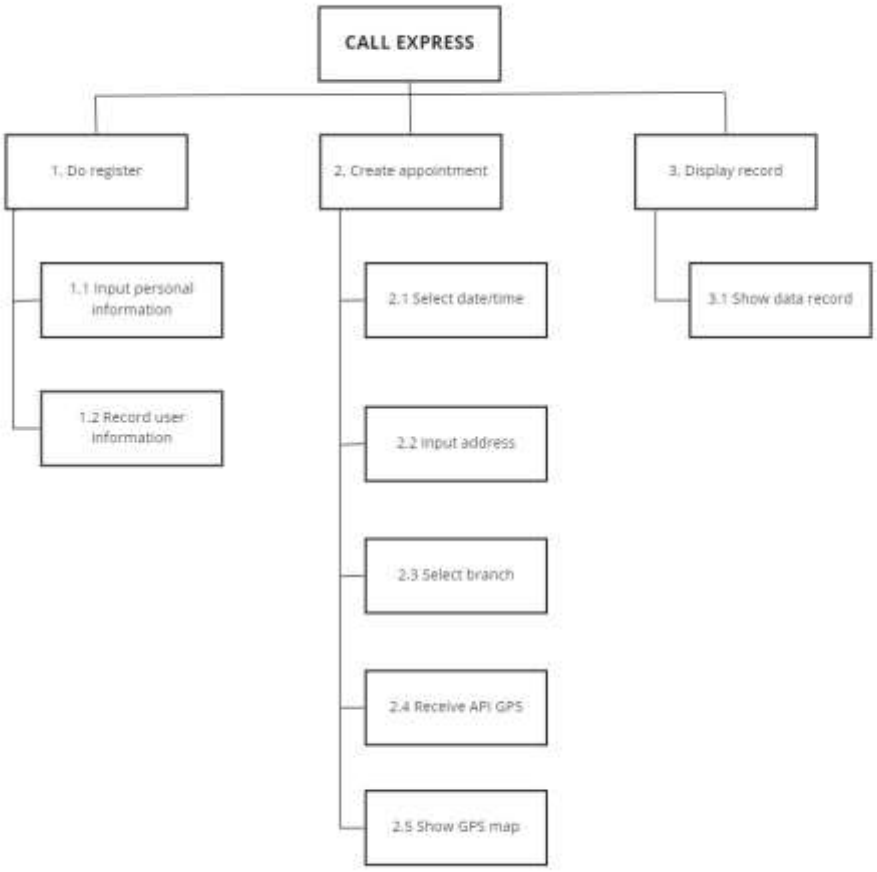
CHAPTER 3
ANALYSIS AND DESIGN

This chapter will analysis and show the design of the Call express application.

3.1 System Architecture Overview

This document presents the architecture a Call Express application between client and system during they use an application.

3.2 System Structure Chart



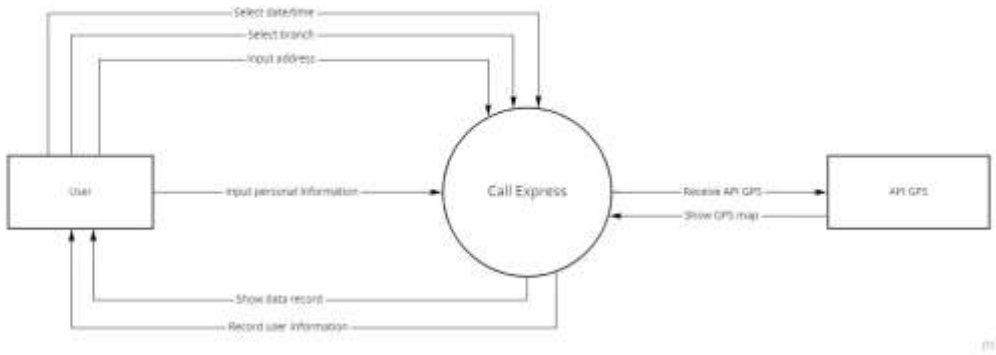
The detailed description of each subsystem is shown below:

1. Do a register – User must do a register before using the application.
    1.1. Input personal information – Input the information require.
    1.2. Recond the user information – The system will record user information.
2. Create appointment – The user will do an appointment when they want to send a parcel.
    2.1. Select date/time – User must select date and time that they want to have an applointment.
    2.2. Input address – User must input their location where they want delivery man to receive a parcel.
    2.3. Select branch – User must select the branch that nearby.
    2.4. Receive API GPS – User must pin to the location.
    2.5. Show the GPS map – The system will show the location that user pin.
3. Display record – The system will show the list of appointment information.
    3.1. Show data record – List all the appointment record that is complete such as date/time, address, and branch.

3.3 **Process Analysis and Design**

3.3.1 **Data Flow Diagram**

DFD lv.0



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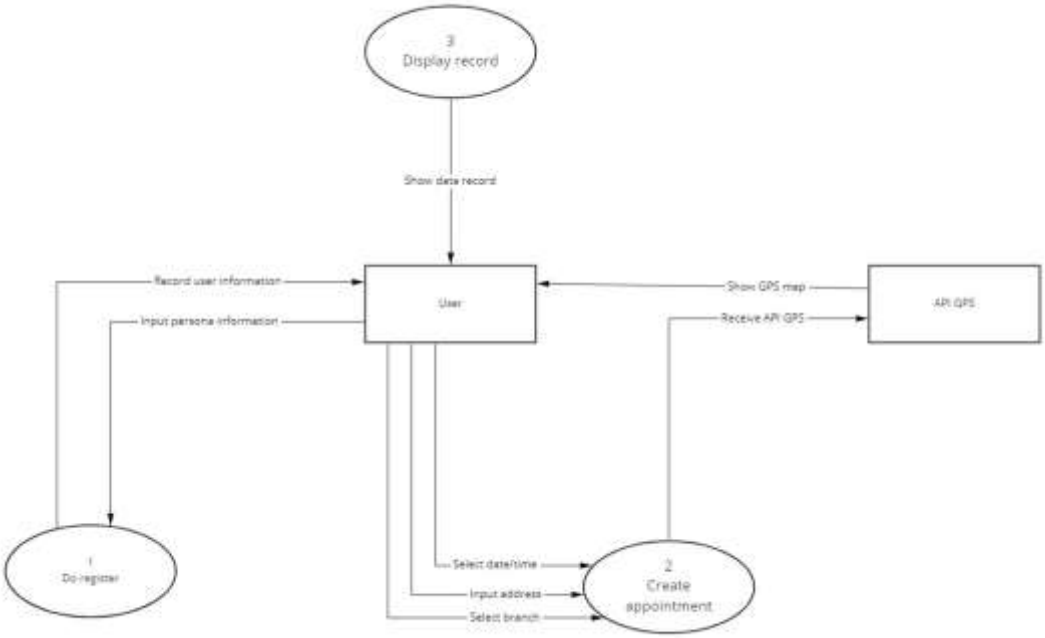


3.3.2 **Data Dictionary**

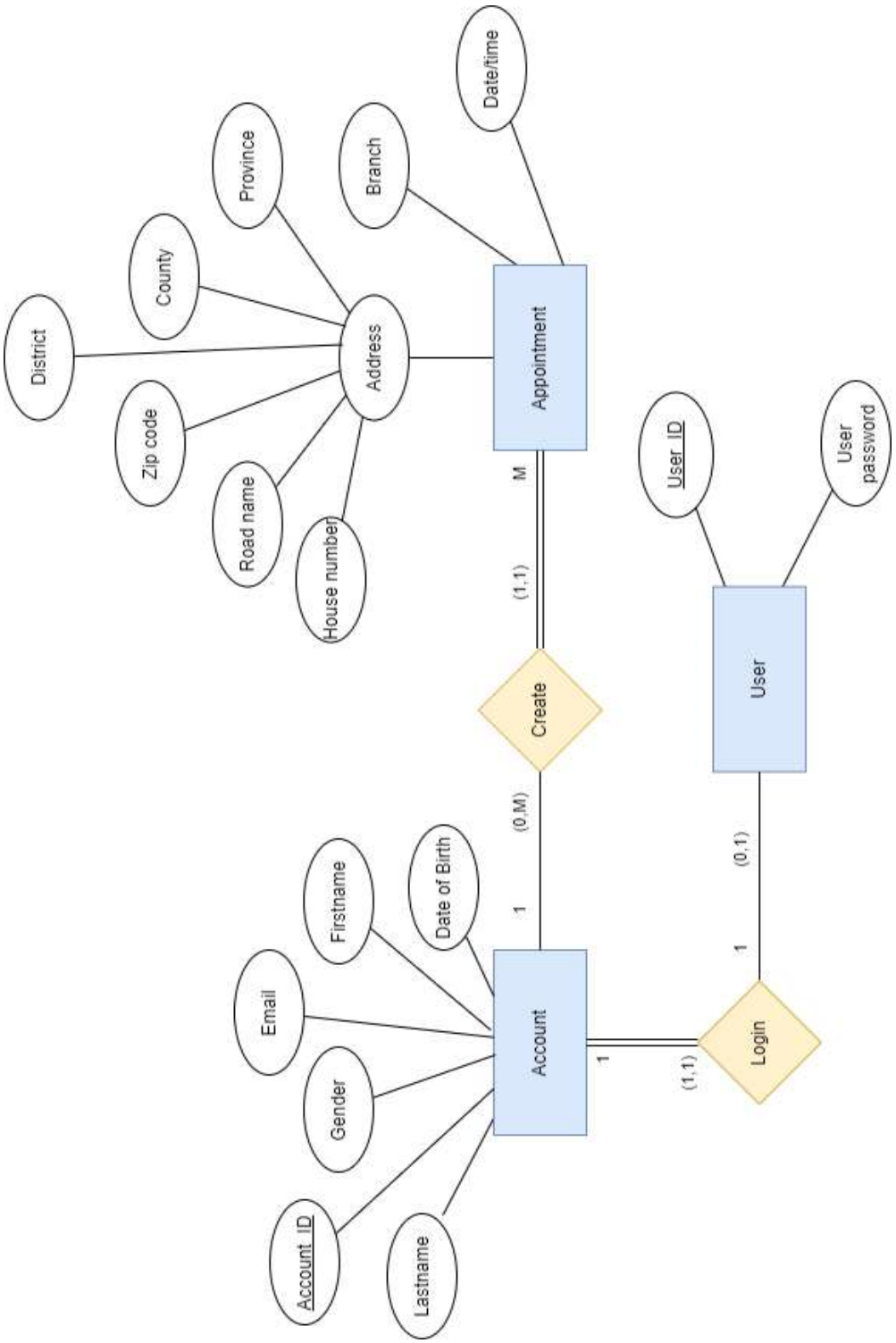
A data dictionary is a way to document and describe Processes, Data Stores, and Data Elements (Data Flow) that occur in a Data Flow Diagram (DFD). It is composed of 3 parts as shown below.

Table Name	Attribute Name	Contents	Type	Format	Nullable	Range	Key	FK Reference Table
Account	acc_id	Account's id	char(8)	xxxxxxxx			PK	
	fname	Account's firstname	varchar(20)	Xxxxxx				
	lname	Account's lastname	varchar(20)	Xxxxxx				
	gender	Account's gender	char(1)	X		M,F		
	dob	Account's birthday	date	yyyy-mm-dd	Y			
	email	Account's email	varchar(50)	Xxxxxx				
	user_id	User's id	varchar(20)	xxxxxx			FK	user_id [User]
Appointment	app_time	datetime	yyyy-mm-dd hh:mm:ss					
	app_branch	Appointment's branch	varchar(20)	Xxxxxx				
	house_num	Appointment's house number	varchar(20)	xxxxx				
	roadname	Appointment's road name	varchar(50)	Xxxxxx				
	subdistrict	Appointment's subdistrict	varchar(20)	Xxxxxx				
	district	Appointment's district	varchar(20)	Xxxxxx				
	province	Appointment's province	varchar(20)	Xxxxxx				
	zipcode	Appointment's zipcode	char(5)	xxxxx				
	acc_id	Appointment's id	char(8)	xxxxxxxx			FK	acc_id[Account]
User	user_id	User's id	varchar(20)	Xxxxxx			PK	
	user_password	User's password	varchar(20)	Xxxxxx				

3.4 **Database Analysis and Design**

This section will show the database analysis and design of the Call Express application.

3.4.1 R-Diagram



3.4.2 **Relational Schema**

This section describes the attributes of the tables in the database. The attribute notation is shown below.

- **Attributes** – which are bold and underlined are the Primary Keys
- *Attributes* – which are Italic are the Foreign Keys
- ***Attributes*** – which are bold, italic and underlined are both Primary Keys and Foreign Keys

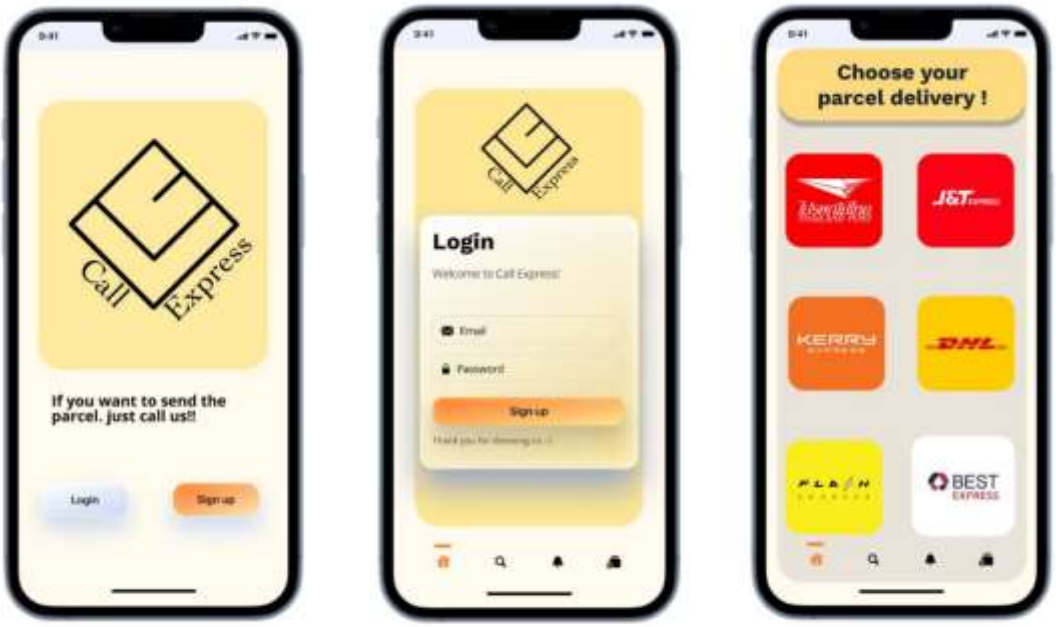
Tables in this system can be divided into 3 groups as follows:

- Master File Table
- Base File Table
- Transaction File Table

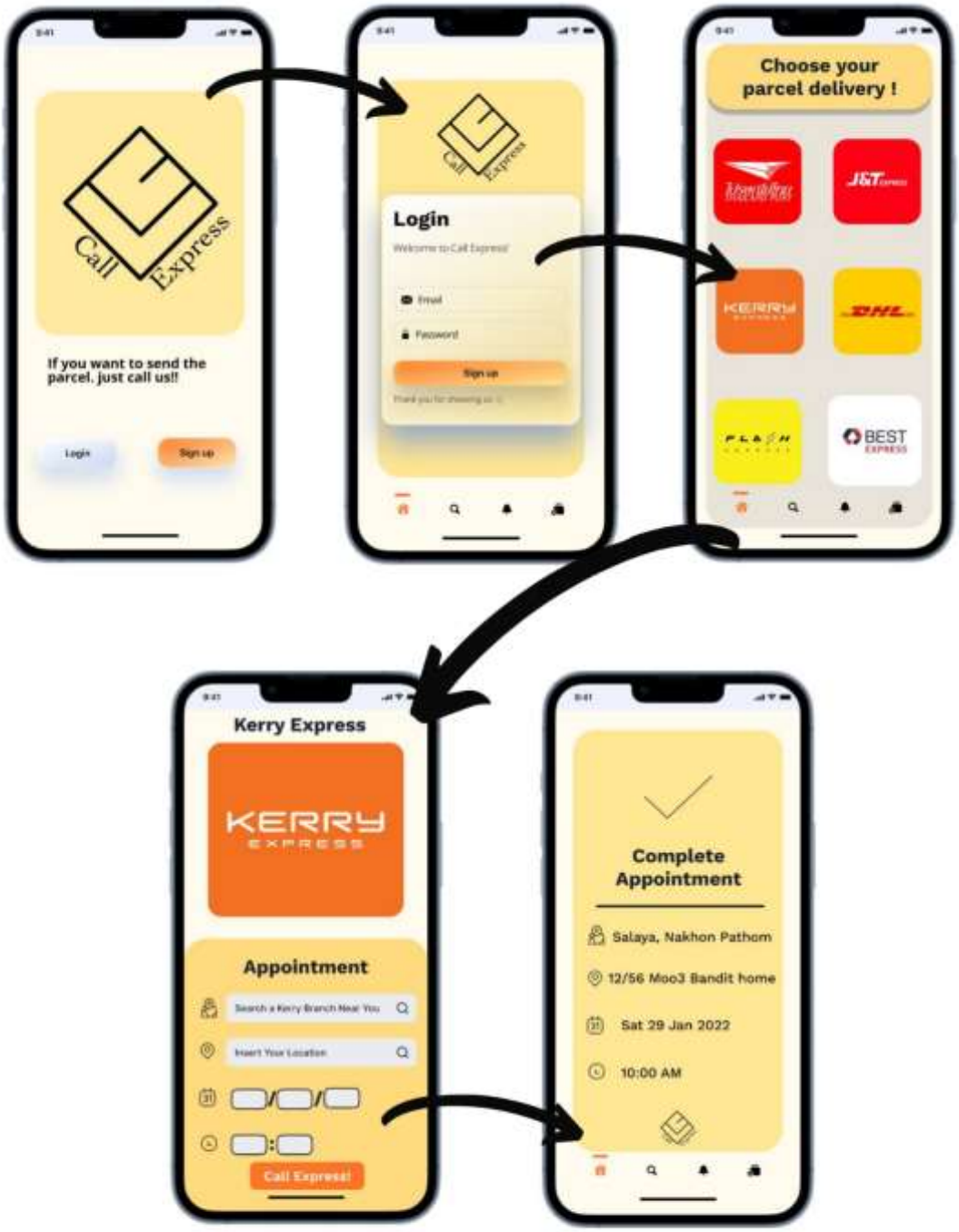
3.5 I/O Design

This section explains the design of the Input and Output User Interface. The section consists of two parts, the interface design and the transition diagram showing transition through the system.

3.5.1 Interface Design



3.5.2 **Transition Diagram**



CHAPTER 4
IMPLEMENTATION

This section will show about the implement of Call Express Application with the interface and function.

4.1 Hardware and System Environment

- Operating System and Utilities Applications
    - We used window to run on our website.
- Editor
    - Visual studio code: The program used to create, test and modify application.
- Components
    - Flutter: We use the only language to implement our project.

4.2 Implementation Guide and Techniques

4.2.1 Route from login to homepage

```
import 'package:flutter/material.dart';
import 'package:flutter_auth/Screens/Login/components/background.dart';
import 'package:flutter_auth/Screens/Signup/signup_screen.dart';
import 'package:flutter_auth/Screens/category/category.dart';
import
'package:flutter_auth/components/already_have_an_account_acheck.dart';
import 'package:flutter_auth/components/rounded_button.dart';
import 'package:flutter_auth/components/rounded_input_field.dart';
import 'package:flutter_auth/components/rounded_password_field.dart';

class Body extends StatelessWidget {
  const Body({
    Key key,
  }) : super(key: key);

  @override
  Widget build(BuildContext context) {
    Size size = MediaQuery.of(context).size;
    return Background(
      child: SingleChildScrollView(
        child: Column(
          mainAxisAlignment: MainAxisAlignment.center,
          children: <Widget>[
            Text(
              "LOGIN",
              style: TextStyle(fontWeight: FontWeight.bold, color:
Colors.blue[900], fontSize: 20),
            ),
            SizedBox(height: size.height * 0.03),
            Container(
                child: Image.asset(
                  'assets/images/Logo.png',
                  height: 250,
                  width: 250,
                )),
            SizedBox(height: size.height * 0.03),
            RoundedInputField(
              hintText: "E-mail",
              onChanged: (value) {},
            ),
            RoundedPasswordField(
```

```
            onChanged: (value) {},
          ),
          RoundedButton(
            text: "LOGIN",
            press: () {
              Navigator.push(
                context,
                MaterialPageRoute(
                  builder: (context) {
                    return Category();
                  },
                ),
              );
            },
          ),
          SizedBox(height: size.height * 0.03),
          AlreadyHaveAnAccountCheck(
            press: () {
              Navigator.push(
                context,
                MaterialPageRoute(
                  builder: (context) {
                    return SignUpScreen();
                  },
                ),
              );
            },
          ),
        ],
      ),
    ),
  );
 }
}
```

CHAPTER 5
TESTING AND EVALUATION

5.1 Unit Tests

For the unit tests, we selected some important and critical processes for formal unit testing. The selected processes include:

- Process number 1: Authentication user
- Process number 2: Search express

5.1.1 Test Performed on Process number 1 : Authentication user

Table 5.1: **Authentication user**

Operation Performed	Condition Tested	Actual Result
Login to system	Email, Password	PASS

5.1.2 Test Performed on Process number 2: Search express

Table 5.2: Search express

Operation Performed	Condition Tested	Actual Result
Find the desired express	Kerry, Flash, …	PASS

5.2 System Integration Test

This activity is performed after the system is completely integrated. The purpose of this testing is to check whether the system can operate correctly according to the required functions or not.

CHAPTER 6
CONCLUSIONS

6.1 Benefits

Our application will be an application that facilitates users of various express services to deliver goods to express cars to deliver to their homes.

6.1.1 Benefits to Project Developers

- Understanding the flutter code and firebase structure
- Understanding about firebase authentication

6.1.2 Benefits to Users

- Make users comfortable in the service, do not have to go brunch to waste time
- This allows users to book immediately without wasting time calling staff.

6.2 Problems and Limitations

- Can't connect to firebase
- There is a big problem with the coding.

6.3 Future Work

- Adding more option on application
- Add more information
- Make the application more efficient

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[2] "Firebase Authentication," [Online]. Available: https://firebase.google.com/products/auth?gclid=CjwKCAjwx46TBhBhEiwArA_DjBwgOW-evV8h1YlELWc-45SJwQ8t7aFbmApPqRmxGFRWvrl1zlpIMxoCjEoQAvD_BwE&gclsrc=aw.ds.

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