

# TRIBHUVAN UNIVERSITY

Prime College Nayabazar, Kathmandu, Nepal

**An Internship Report** 

On

"Khaidim"

At

Premium Technologies Pvt. Ltd.

Submitted By
Kushal Shrestha (20480/075)

An Internship Report Submitted in partial fulfillment of the requirement of **Bachelor of Science in Computer Science & Information Technology (BSc.CSIT) 8<sup>th</sup> Semester** of

Tribhuvan University, Nepal

#### **Khaidim**

[CSC 462]

An internship report submitted for the partial fulfillment of the requirement for the degree of Bachelor of Science in Computer science & Information Technology awarded by Tribhuvan University.

### **Submitted By**

Kushal Shrestha (20480/075)

#### **Submitted To**

Prime College

Department of Computer science

Affiliated to Tribhuvan University

Khusibun, Nayabazar, Kathmandu





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Date: 8th August 2023

#### To Whom It May Concern

This is to certify that Mr. Kushal Shrestha has completed a four-month internship as Flutter Developer Intern at Premium Technologies Pvt. Ltd from April 1, 2023 to July 31, 2023.

In this role, he played a critical role in ensuring that our products and services met our high standards for quality and accuracy. He worked collaboratively with other team members, identifying areas for improvement and implementing new processes to enhance our quality control procedures.

Throughout the tenure at Premium Technologies Pvt Ltd, he was consistently demonstrated a strong work ethic, positive attitude, and dedication to him job. We were impressed with him ability to learn quickly, take on new challenges, and excel in a fast-paced, dynamic environment.

Sincerely,

Though.

PREMIUM Technologies Pvt. Ltd.

Maria Thapa Admin & HR Department

Being Digital at the 'CORE'.

Date: 4<sup>th</sup> October, 2023

SUPERVISIOR'S RECOMMENDATION

It is my pleasure to recommend that an internship report on "Khaidim" has been prepared

under my supervision by Kushal Shrestha in partial fulfillment of the requirement of the

degree of Bachelor of Science in Computer Science and Information Technology

(BSc.CSIT). His report is satisfactory and is an original work done by him to process for

the future evaluation.

.....

Mr. Hiranya Prasad Bastakoti

**Internal Supervisor** 

Department of Computer Science and Information Technology

Prime College

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Date: 4<sup>th</sup> October, 2023

## **CERTIFICATE OF APPROVAL**

The undersigned certify that he has read and recommended to the Department of Computer Science and Information Technology for acceptance of an internship report entitled "Khaidim" submitted by Kushal Shrestha in partial fulfillment for the degree of Bachelor of Science in Computer Science and Information Technology (BSc.CSIT), Institute of Science and Technology, Tribhuvan University.

Mr. Narayan Prasad Sharma	Ms. Rolisha Sthapit
Principal	Program Coordinator
Mr. Hiranya Prasad Bastakoti	Mr. Sarbin Sayami
Internal Supervisor	External Examiner

**ACKNOWLEGDEMENT** 

I would like to extend my heartfelt gratitude to Tribhuvan University, Faculty of Computer

Science and Information Technology and Prime College for giving me the opportunity to

carry out this internship, which was instrumental in upgrading my skills and capabilities. I

am truly thankful to Premium Technologies Pvt. Ltd. for recognizing my abilities and

providing me with a valuable space to work in their organization. This internship has been

a significant opportunity for my professional development, and I would like to express my

deepest and most sincere gratitude to all those who were directly or indirectly involved in

this project.

I am especially grateful to Mr. Mohan Ban (CEO) and Ms. Maria Thapa (Admin /HR

Department) of Premium Technologies Pvt. Ltd. for granting me this valuable opportunity

and for creating a conducive working environment which led me to learn and explore my

skills in Flutter. I sincerely appreciate Mr. Ashish Neupane, Mr. Gaurab Neupane, Mr.

Yuvraj Pratap Sen for being accommodating, understanding, and supportive throughout my

internship for their continuous assistance and motivation throughout the completion of this

project. I want to acknowledge Prime College for providing practical ways to enhance our

skills and knowledge and Tribhuvan University for designing an internship program that

enables students to develop their careers and experience the real-world organizational

environment.

I would also like to extend special thanks to my family, whose unwavering love and

encouragement have been my constant source of strength throughout this journey, Mr.

Hiranya Bastakoti (Supervisor) and Mrs. Rolisha Sthapit (Coordinator of BSc. CSIT, Prime

College) for their assistance in ensuring that this report obeys to the standards and norms.

I would not have been able to complete this work without the tremendous effort and support

I received from my mentor, supervisor, and others at Prime College.

With Respect,

Kushal Shrestha (20480/075)

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ABSTRACT

During Flutter internship at Premium Technologies Pvt. Ltd., the mobile application

Khaidim was developed utilizing the Prototyping methodology. This concept pushes the

limits of technology where delicious food is just a tap away. Rooted in the pursuit of a

Bachelor of Computer Science and Information Technology degree, Khaidim leverages the

synergy of theoretical knowledge and hands-on expertise to create an exceptional user

experience. At its foundation, Khaidim offers consumers a simple online shopping cart that

they can easily add, alter, or delete things from, making ordering meals more

straightforward than ever. Beyond this, the app promotes community involvement by

allowing users to construct their desires with personalized wish lists and offer insightful

comments through item evaluations. Khaidim stands out for its dedication to providing

customers with an immersive experience as well as a product. This internship experience

has been a deep journey of personal and professional growth that goes beyond the learning

of practical skills. It provides insightful information about the complex cultural norms of

the field and its work ethic. Beyond its technological accomplishments, this voyage paves

the path for a day when practicality and gastronomic enjoyment coexist peacefully. It also

promises to impact the trajectory of future prospects and redefine the dynamic junction of

technology and food.

**Keyword:** food, Khaidim, Flutter, State Management, UI, UX

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## LIST OF ABBREVIATION

API Application programming interface

ATM Automated Teller Machine

CBS Core Banking System

Hi-Fi High- fidelity

ICT Information and Communications technologies

IDE Integrated Development Environment

IT Information Technology

Ltd Limited

OOD Object Oriented Design

OOD Object Oriented Design

OTP One Time Password

Pvt. Private

REST Representational State Transfer

SMS Short Message Service

TC Test Case

UI User Interface

UX User Experience

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### **CHAPTER 1**

### INTRODUCTION

#### 1.1 Introduction

The internship described in this document took place at Premium Technologies Pvt. Ltd., where the author got the opportunity to work on a project named "Khaidim App" is an application that allows you to experience the greatest meals at home, at the workplace, or anywhere. Users may select from hundreds of culinary options. It allows customers to access various culinary products and place online orders. It allows customers to effectively and efficiently explore through various cuisine categories. People nowadays favor online shopping. Users just need to visit the application, choose a food item, put it to their basket, and pay when the goods are delivered. Its primary goal is to generate business income by using the strength and benefits of contemporary technology. The app's features are intended to cater to the needs and changes of the users in order to provide effective service. This application will also have different categories for restaurants and merchants. It seeks to gratify its customers and will allow them to provide timely feedback to convey their thoughts on the service.

#### 1.2 Problem Statement

Our world is changing, and technology is becoming more integrated into our daily life. We do a lot of things online every day, from buying products to paying bills, by utilizing various programs on our various devices. The digitization of business is accelerating in today's technologically advanced society. Today, there are millions of enterprises with online presences. People purchase food online because it is convenient and they prefer to save time. To find quick meal products, people must visit several eateries, and occasionally they are unsuccessful. Therefore, users of applications can order a variety of culinary products from various eateries. This software may be used for a variety of things, including discovering food items, getting brief information about them, and getting user reviews. A vast client base may be reached easily through e-commerce. But there is fierce rivalry among several e-commerce programs and websites.

Users expect to swiftly and easily locate what they're looking for. Any online store's goal is to assist clients in hone in on their broad ideas and enable them to decide exactly what they want to purchase.

## 1.3 Objectives

The study's overarching goal is to meet the requirements for the Bachelor of Computer Science and Information Technology degree. Aside from that, the precise objectives are as follows:

- To use our theoretical knowledge and become acquainted with a real-world working setting.
- To ease the life of the customers as they can order food from hundreds of restaurants.
- To enhance the user interface and personalize user experience with the application.

## 1.4 Scope and Limitation

The scope and limitation are as follows:

#### 1.4.1 Scope

People who live in Nepal's big cities now find e-commerce to be quite popular. The simplicity and convenience are the key reasons why it has gained popularity. Users of the program are able to save crucial time. The major goal of developing "Khaidim" is to provide the fastest, easiest, and most practical means of enjoying the tastiest meals at home, at work, or everywhere. Users won't have to waste time going to restaurants because they can quickly search for food products and place online orders. Additionally, it aids in boosting business earnings from internet sales. It displays a straightforward, seamlessly integrated, and user-friendly interface design. As technology advances, the suggested application may also be utilized from a variety of devices. This project helps business professionals grow their enterprises.

#### 1.4.2 Limitation

There have been some limitations on the report despite all the hard work to make it fully approved. Some of the limitations are described below.

- This application is not ideal one hence it has various limitations.
- This application does not contain real-world menus and data.
- The work related to delivery is not implemented.

• Real-world equivalent price are not labeled.

## 1.5 Report Organization

The report is organized as follows:

**Chapter 1:** The project's introduction, problem description, objectives, and scope and limits are all included in this part.

**Chapter 2:** The organization's aims, practices, organization, working domains, intern's department, and a review of relevant literature are all covered in this section.

**Chapter 3:** The tasks performed during the internship, including duties and responsibilities, are covered in this section. Additionally, there is a weekly work records that details the actions.

Chapter 4: The final views and insights from the internship are presented in this part.

### **CHAPTER 2**

## ORGANIZATION DETAILS AND LITERATURE REVIEW

### 2.1 Introduction to Organization

Premium Technologies Pvt. Ltd. is a software company which provides all types of IT solution inside and outside the country. The company builds websites, mobile, desktop & web applications, integrated management systems, and many more which are unique and eye catching, highly reliable, secure and customer friendly.

Over the last few years, the company has made an incredible reputation for building creative things that are attractive and easy to use. The company has worked with many types of business to provide an outstanding online experience and a serious competitive advantage. The company is led by a strong management team and knowledgeable computer engineers and IT knowledge workers with experience in various areas of the information and communication technology (ICT) industry.

**Table 1: Contact details of company** 

Company Name	Premium Technologies Pvt. Ltd.
PAN No.:	603544376
Contact	9801130700
Mail	info@premiumtech.com.np
Website	www.premiumtech.com.np

## 2.2 Organizational Hierarchy

The firm Premium Technologies Pvt. Ltd. has evolved as a result of the collective work of all team members. Premium Technologies Pvt. Ltd. has the view that only effective cooperation can make a dream come true. Company management have extensive knowledge of both clients and staff. The hierarchy within the firm is as follows:

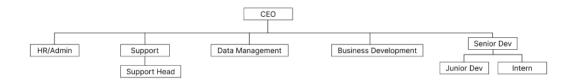


Figure 1: Hierarchical structure of the Premium Technologies Pvt. Ltd

### 2.3 Working Domains of Organization

The management team at Premium Technologies Pvt. Ltd. is strong, and the company's knowledgeable computer engineers, digital marketers, and IT professionals have experience in a range of ICT and digital marketing-related fields, including software development, business application solutions, and issues related to digital marketing.

- Web Development
- Mobile Application Development
- Premium CBS
- Tablet Banking
- Mobile Banking
- ATM Banking
- SMS Banking
- Quality Assurance

## 2.4 Description of Intern Department

#### 2.4.1 Introduction

The intern was placed in the Development department. It deals with researching, ideating, designing different mockups, layouts and designs for various products and develop the system according to client's requirement and specification. This department is also responsible for creating the overall CBS related works and applications of the company. All in all, the department deals with all the research, designing, development related works of the product in the organization.

#### **2.4.2** Mentor

After joining the Developers Team at Premium Technologies Pvt. Ltd. The intern got an opportunity to work and be supervised by professional mentor Ms. Maria Thapa who has been working in this field for many years and helped the intern and guided them through their internship period.

#### 2.4.3 Team

In Premium Technologies The intern got an opportunity to work in a team for the first time in their professional career. The intern was guided by a very professional mentor and got the opportunity to work under the expertise of the mentor and a supportive team which helped them to develop and nourish their skills and experience new things.

#### 2.4.4 Internship Duration

**Table 2: Internship Duration Details** 

Start Date	1 <sup>st</sup> April, 2023
End Date	31st July, 2023
Total Duration	4 months
Mentor	Ms. Maria Thapa
Office Hour	9.30 am – 6 pm
Working Days	5 days

#### 2.5 Literature Review

Convenience is the primary motivator for customers to choose an online purchase method over a traditional one, according to Silva et al. (2016). According to Lee et al. (2017), if an application can demonstrate how simple it is for the end user, customers would be happier and more eager to use online meal ordering technology in e-commerce also restaurant businesses are concentrating more on getting millennials to use online ordering since they are predicted to have a combined spending power of over \$3.39 trillion in the future and value convenience over all other factors.

In a study, Mun (2017) hypothesized that simplicity of use is one of the key factors influencing customers' intentions to switch to and adoption of online food ordering and delivery services. In other words, if the program is simple to use, users are more likely to get used to the technology. Even if a program is good, users are less likely to utilize it if it is difficult to navigate.

According to a study by Vries et al. (2018), consumers' inclinations to use online meal ordering and delivery services are influenced by their favorable experiences. According to Yeo et al. (2017), customers who enjoyed using an application the first time are more likely to use it again in the future. The study concluded that customers are more likely to intend to purchase meals online when the pleasure element is higher.

The usability of an online application, according to Luna (2017), will boost client buying activity. [Veja, 2017] asserts that there is a favorable correlation between usefulness and online reservation services. This implies that one of the elements influencing a customer's propensity to utilize an online meal ordering and delivery service is usability.

## **CHAPTER 3**

## **INTERNSHIP ACTIVITIES**

## 3.1 Roles and Responsibilities

The intern was placed in development team and was involved in provided tasks. The intern was mostly responsible for researching, ideating, learning the development of mobile application using Flutter framework under the supervision of a highly professional mentor. The major roles are as follows:

- Get familiar with dart programming language.
- Learn about making UI Designs in flutter.
- Get familiar with GitHub and Gitlab.
- Learn to write clean and optimized code.
- Learn about teamwork and coordination.
- Identify bugs and solve the related problems.
- Complete the work on scheduled time.
- Learn about state management and implement in the project.

## 3.2 Weekly Logs

**Table 3: Weekly Logs** 

Activities	Week	Date
Research, self-study and understanding the nature of organization	1 <sup>st</sup> week	2023-04-01 to 2023-04-08
Design research work, requirements gathering, empathizing, ideating	2 <sup>nd</sup> week	2023-04-09 to 2023-04-16
Wireframing Khaidim App	3 <sup>rd</sup> week	2023-04-17 to 2023-04-24

<ul> <li>High Fidelity Designing of Khaidim App</li> <li>Prototyping of Khaidim App</li> </ul>	4 <sup>th</sup> – 5 <sup>th</sup> week	2023-04-25 to 2023-05-09
UI of the application	6 <sup>th</sup> week	2023-05-10 to 2023-05-17
Same navigation and appbar across multiple screens	7 <sup>th</sup> week	2023-05-18 to 2023-05-25
<ul><li>Learn about Restful APIs</li><li>Integration in flutter</li><li>Fix all the errors</li></ul>	8 <sup>th</sup> - 9 <sup>th</sup> week	2023-05-26 to 2023-06-09
Learning Firebase for database	10 <sup>th</sup> week	2023-06-10 to 2023-06-17
<ul> <li>Riverpod Provider State         Management for wish list</li> <li>GetX State Management for         cart</li> </ul>	11 <sup>th</sup> – 13 <sup>th</sup> week	2023-06-18 to 2023-07-02
Integration of Flutter with backend	14 <sup>th</sup> week	2023-07-03 to 2023-07-10
<ul> <li>Integration of flutter with backend</li> <li>Study about fetching data</li> <li>Fixing Errors</li> </ul>	15 <sup>th</sup> – 16 <sup>th</sup> week	2023-07-11 to 2023-07-25

# 3.3 Description of the Project Involved During Internship

During the intern's internship period, the intern was placed in Development team and was involved in provided tasks. I was mostly responsible for researching, ideating and learning all the essentials to learn mobile application development.

### **Food Delivery System application**

Khaidim is an app that provides the quickest, easiest, and most practical method to enjoy the tastiest meals at home, at work, or everywhere. Users have access to a huge selection of culinary items. Customers may access various food products and place online orders using it. Users have the choice to quickly and effectively explore through various culinary categories. The cuisine descriptions that eateries are offering must be uploaded. People now days choose an online store. Users only need to access the application, choose a food item, put it to the cart, and then check out. Its fundamental objective is to use the strength and advantages of contemporary technology to support commercial revenue growth.

The app's features are created to accommodate user requests and adjustments for effective service. Additionally, this application will have several categories based on restaurants and providers. It seeks to satisfy its customers and will also provide them the opportunity to provide timely feedback to share their thoughts on the service.

#### 3.3.1 System Requirements

System analysis includes the functional and non-functional requirements as shown below:

#### 3.3.1.1 Functional Requirements:

The functional requirements specify the services that the application provides, how the application reacts to particular inputs, and show results according to the inputs. Some of the functional requirements of this application is described below in a use case diagram:

#### a. Sign In/Sign Up:

- Users can sign up to the application directly via google account or through email.
- Users' password should contain at least 8 characters.

#### b. Profile:

- The application stores login information on the database.
- Users are able to logout from his/her account.

#### c. Food items:

- Users can view the list of all the food items available.
- Users can see the items respective price.
- Users can add the items to Wishlist and cart.

#### d. Add Menu:

 Restaurants can add food items in the application fulfilling the required descriptions.



Figure 2: Use Case Diagram

In this use case diagram, the user, super admin and restaurants acts with the various use cases. The users can sign up and sign in into the application and can place orders for various food items. Users can also track order, make payments and subscribe for different thakali khana packages. Restaurants can Sign in to the application and can manage food items and payments. Restaurants can also manage delivery, collect payments and create receipt. Super Admin can manage users and restaurants and can manage food items, payments and delivery.

#### 3.3.1.2 Non-Functional Requirements:

Non-functional describe the general properties of a system which is also known as quality attributes. Some of the non-functional requirements are:

#### a. Usability:

The application should be easy to use for non-technical user also so that user can achieve their target with a single click.

#### b. Security:

Security is the supreme importance since application includes user's confidential data. In order to build trust among the users, admin plays a great role to control who can create, see, copy, change or delete information.

#### c. Performance:

For increasing traffic on the application, it's important to pay special attention to the performance. The focus should be on loading the application as fast as possible regardless of the number of integrations and traffic on the application.

#### d. Maintainability and Scalability:

The operational costs for maintenance of the application should be on budget. Scalability defines how the application can grow and increase its features and functionality without impacting the performance.

#### 3.3.2 System Design

Systems design is the process of establishing the architecture, product design, modules, interfaces, and data for a system to meet certain criteria. One may define systems design as the application of systems theory to product development.

Object-oriented methodology was used in the project. The emphasis is on encapsulating the organization and operation of information systems into manageable units that integrate data and procedure. By making system analysis and design more accessible, object-oriented design (OOD) aims to increase both the quality and productivity of these processes.

#### 3.3.2.1 Architecture Design

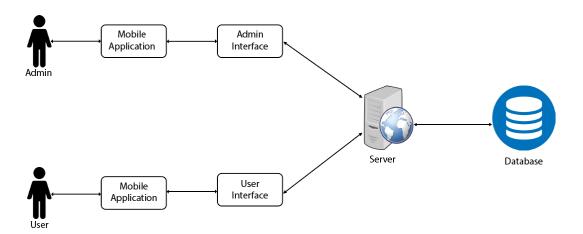


Figure 3: System Architecture

The mobile application, which the user uses to engage with the program, manages their choices and actions within of it. The server, which is an essential part of the system, is responsible of handling user interactions and managing user accounts. The database contains all the necessary information and data.

#### **3.3.2.2 Analysis**

To bridge the gap between the issue and the solution, OOP are utilized. It works successfully when systems are continuously being designed, adjusted, and maintained. It recognizes the objects in the issue area and categorizes them according to their data and behavior. The OOP encourages the recycling of pieces, integrates components to make complicated system design easier, and facilitates distributed system design at a reasonable cost.

#### 3.3.2.2.1 Class Diagram

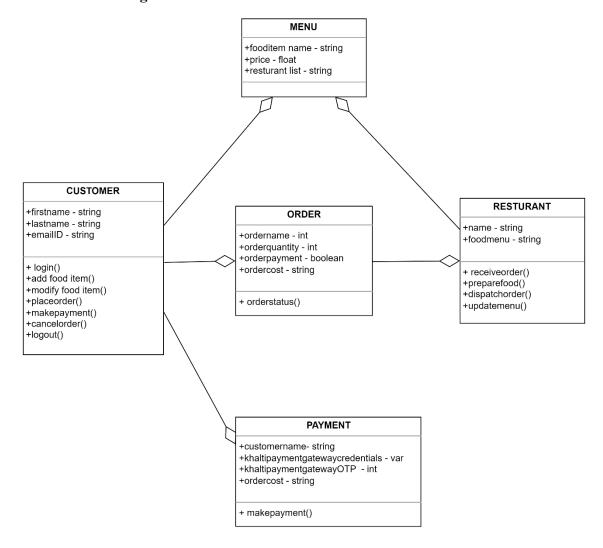


Figure 4: Class Diagram of Khaidim App

Five classes are shown in the class diagram above: Customer, Order, Menu, Payment, and Restaurant. Each class has a unique collection of methods and properties. A user entity in the system is represented by the Customer class, whereas a restaurant is represented by the Restaurant class. The system's order, payment, and menu entities are represented by the Order, Payment, and Menu classes, respectively. The customer class and the payment, order, and menu classes are aggregated.

#### 3.3.2.2.2 Sequence Diagram

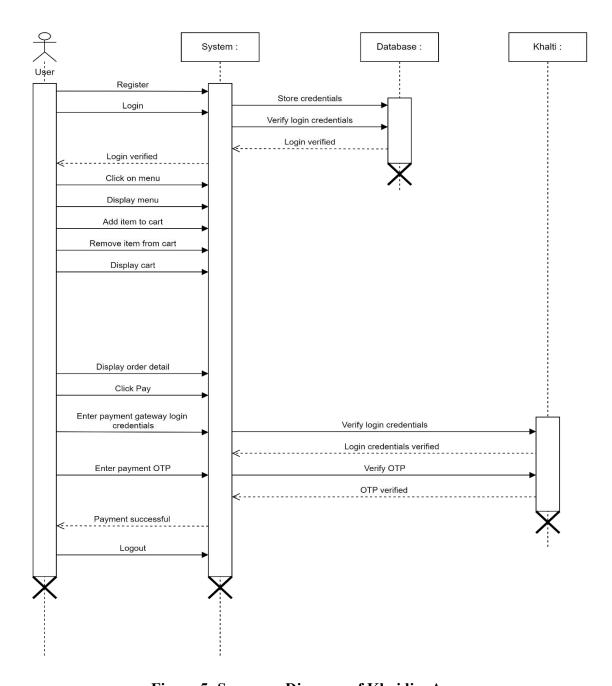


Figure 5: Sequence Diagram of Khaidim App

User, System, Database, and Khalti are the three elements in the above diagram. Users may sign up using the system, and their credentials are saved in the database for verification. Valid users may use the program, view the menu items, add them to their wish lists and shopping carts, and place online orders for the products they want. They are able to review the things in their cart and review and make the payment through Khalti integrated payment gateway. Additionally, they can log out of the program.

## 3.3.2.2.3 Activity Diagram

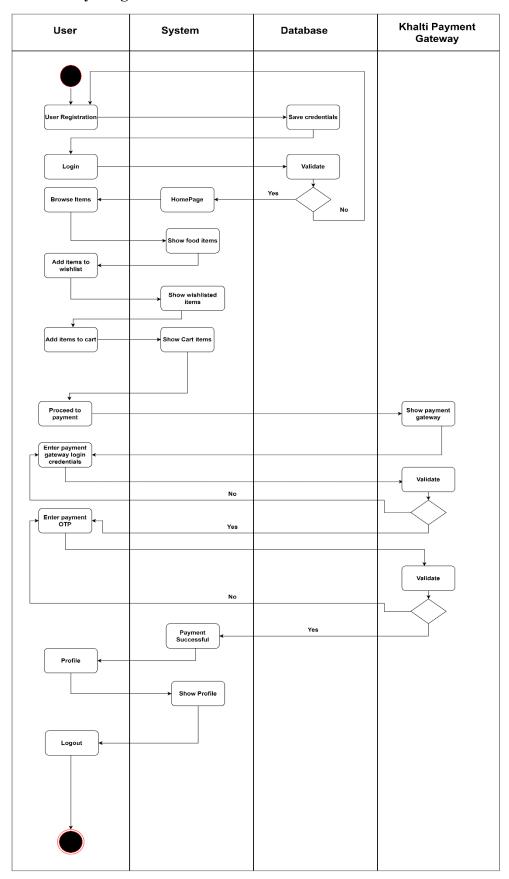


Figure 6: Activity Diagram of Khaidim App

The User, System, Database, and Khalti represent the four actors in the activity diagram. The system allows users to register, and their login details are stored in the database for later authentication. The products can be browsed, added to wish lists, carts, and orders by authorized users. They may view the products they have added to their wish list and cart, which includes the items they want. The connected payment gateway Khalti allows them to easily pay for their orders. Additionally, they have the option to log out of the system.

#### 3.3.2.2.4 State Diagram

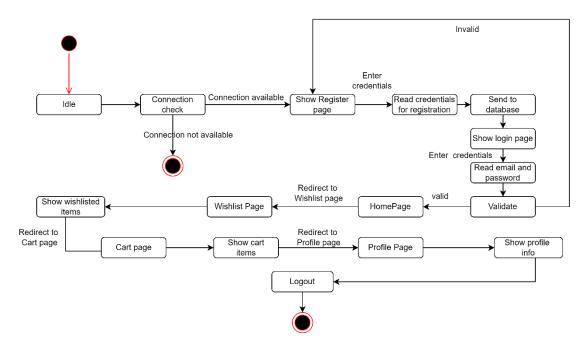


Figure 7: State Diagram of Khaidim App

The system checks for an internet connection when it first starts up. If the registration page is available, it switches to it; if not, an error is returned. Users can register, and the database stores their login information. The system then proceeds to the login page to confirm user credentials before granting access to the homepage. There are features like a wish list page, a cart page, and a profile. When a user logs out and the system enters termination mode, the session comes to an end.

#### 3.3.2.2.4 Deployment Diagram

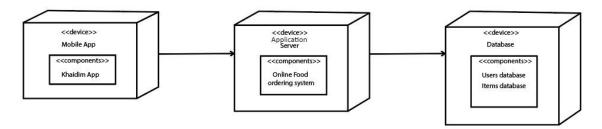


Figure 8: Deployment Diagram of Khaidim App

The user's device, the server, and the database server are the three elements in the deployment diagram. The server acts as a complete application platform, and the user's device manages user-related tasks. The Firebase database is housed on the Database Server. Secure connections are used for online communication.

#### 3.4 Tasks/Activities Performed

During the intern's internship period a project named "Khaidim" was assigned to the intern. The related work is to build mobile application which has various features. The author built several UI Designs for Khaidim App in flutter. After that, the intern studied about using Restful API in flutter which includes sending and fetching the data. Backend was done in Firebase which was integrated in flutter.

### • Wireframing

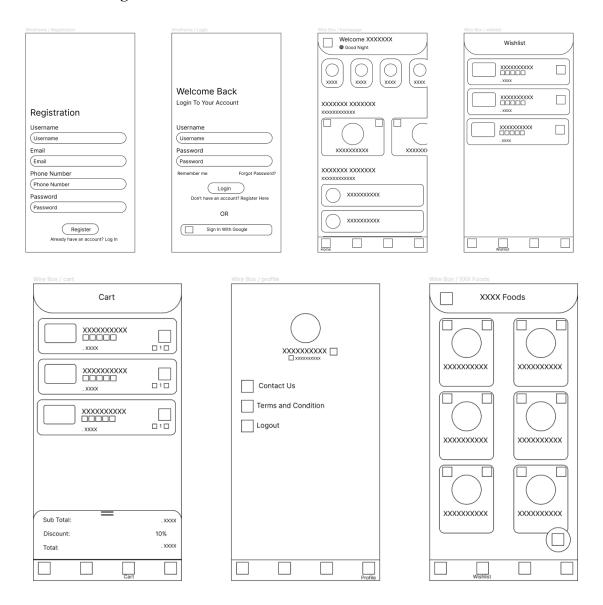


Figure 9: Wireframe of Khaidim App

Before adding visual design and the essential contents, the basic framework of a page was established using wireframing early in the project development phase. Before beginning a creative phase, it was employed to provide the project a visual comprehension. It aided in thoroughly picturing the project. The mobile and desktop applications' many components are depicted in the wireframe. Each element has undergone meticulous design and construction.

#### • High Fidelity Design

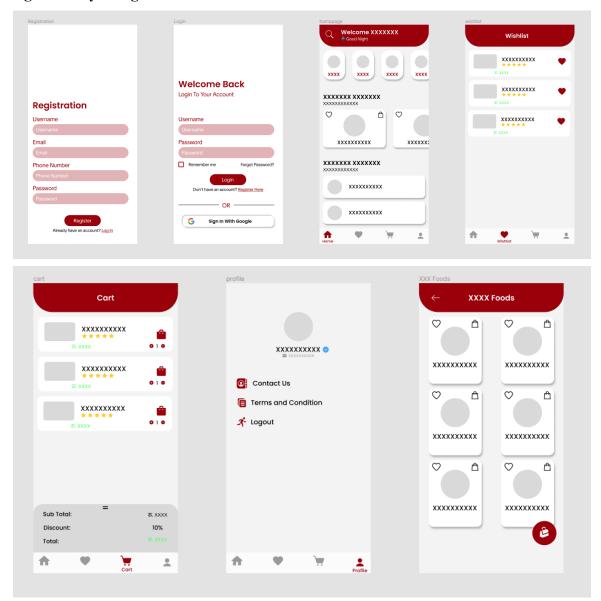


Figure 10: High Fidelity Design of Khaidim App

The final phases of the product design process are usually when high fidelity designs are produced. A product team increases the level of fidelity to better comprehend the look and feel of a future product when they have a firm understanding of what they want to produce. For the technical team that will code the design, hi-fi prototypes serve as a source of truth.

High fidelity design assets provide you the chance to determine whether your design functions as a cohesive whole, which makes them useful for assessing visual design and aesthetics.

### • Prototyping

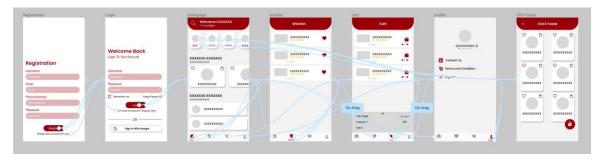


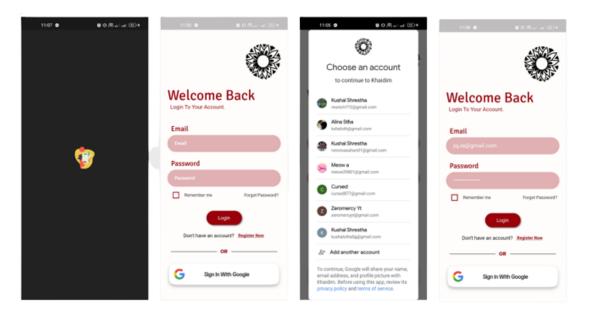
Figure 11: Prototyping of Khaidim App

You may develop interactive flows using prototyping capabilities to test out different user interactions with your ideas.

A great approach to preview interactions and user flows is through prototypes. Exchange and refine ideas, Obtain input from coworkers, user interactions to test, Present your concepts to interested parties.

### • Khaidim App

Khaidim is an app that delivers the quickest, easiest, and most convenient way to eat the most delicious meals at home, work, or anywhere. Users have access to a vast array of culinary goods. Customers may use it to access numerous food goods and conduct online orders. Users may efficiently navigate through many food categories.



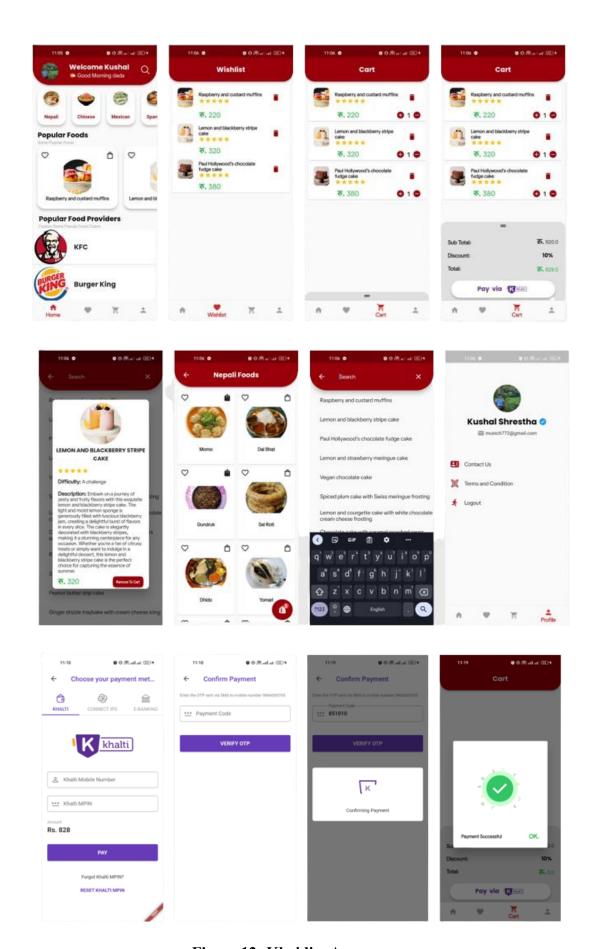


Figure 12: Khaidim App

#### 3.4.1 System Implementation

#### 3.4.1.1 Front End Tools

- **Flutter:** Flutter was used to build the overall UI of the application and for integration with backend.
- **GitHub:** GitHub was used for repository of the application.
- **GitLab:** GitLab was used for repository of the application.
- **Figurema:** Figurema was used for designing.
- Visual Studio Code: The IDE was used for developing applications.
- Wireframe cc: Wireframe cc was used to develop the wireframe of the project.

#### 3.4.1.2 Back End Tools

• **Firebase:** Firebase was used for the database works.

#### 3.4.1.3 API Testing Tools

• **Postman:** Postman is an API platform that allows you to create and use APIs. To help you design better APIs quicker, Postman improves collaboration and simplifies every stage of the API lifecycle.

#### 3.2.1.4 Development Methodology

The "Khaidim" project was created at Premium Technologies Pvt. Ltd. during the Flutter internship utilizing the prototyping process. A prototype is produced, tested, and revised until it is an acceptable prototype according to the prototyping paradigm of software development. It also sets out the foundation for the creation of the final program or system. It functions well in circumstances where the project requirements are not fully understood. The process is iterative and based on trial and error between the client and developer. Matthew M. (2023)

First, wireframes, which are low-fidelity drawings, were created before moving on to high-fidelity interactive designs. Before real development begins, this method makes it possible to get early input from users and stakeholders, enabling for the improvement of the app's functionality and design.

The wireframes were monitored and modified in response to the comments received. It serves as a guide for code and design, resulting in a more successful and user-focused mobile app. Even after deployment, continual user testing, feedback, and post-launch optimization make sure the software still meets users' expectations.

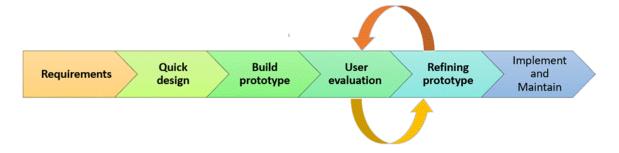


Figure 13: Khaidim App development methodology

#### 3.4.2 System Testing

Software testing is a process of running with intent of finding errors in software. Software testing assures the quality of software and represents final review of other phases of software like specification, design, code generation etc.

#### **3.4.2.1 Unit Testing**

Unit testing emphasizes the verification effort on the smallest unit of software design i.e.; a software component or module. Unit testing is a dynamic method for verification, where program is actually compiled and executed. Author has tested each view/module of the application individually.

In unit testing, the whole system is designed in a modularized pattern and each module was tested. Each module was broken down and was parallelly tested and after getting a bug it was made bug free.

**Table 4: Test Cases for Unit Testing** 

SN	Test case Id	Test description	Input test data	Expected Result	Actual Result	Status
1	TC 01	Enter valid signup details	First name: user Last name: admin email: abc@gmail.com password: ********	It should redirect to login page.	Redirected to Login Page.	Pass
2	TC 02	Enter invalid signup details	First name: user Last name: admin email: abc@gmail password: *******	It should not redirect to login page.	Didn't redirect to Login page.	Pass
3	TC 03	Enter Sign In details	email: abc@gmail.com password: *******	It should Redirect to homepage.	Display Homepage	Pass
4	TC 04	Enter Invalid Sign In Details	email: abc@gmail.com password: ****	It should not show error message.	Error message shown.	Pass

#### 3.4.2.2 Integration Testing

The main function or goal of this testing is to test the interfaces between the units/modules. We normally do Integration testing after "Unit testing". Once all the individual units are created and tested, we start combining those "Unit Tested" modules and start doing the integrated testing. The main function or goal of this testing is to test the interfaces between the units/modules.

The main function or goal of this testing is to test the interfaces between the units/modules. We normally do Integration testing after "Unit testing". Once all the individual units are created and tested, we start combining those "Unit Tested" modules and start doing the integrated testing. The main function or goal of this testing is to test the interfaces between the units/modules.

**Table 5: Test Cases for Integration Testing** 

	Test					
SN	case Id	Test description	Input test data	Expected Result	Actual Result	Status
1	TC 01	Enter valid signup details	First name: user Last name: admin email: abc@gmail.com password: *******	It should redirect to login page.	Redirected to Login Page.	
2	TC 02	Enter invalid signup details	First name: user Last name: admin email: abc@gmail password: *******	It should not redirect to login page.	Didn't redirect to Login page.	Pass
3	TC 03	Enter Sign In details	email: abc@gmail.com password: *******	It should Redirect to homepage.	Display Homepage	Pass
4	TC 04	Enter invalid Sign In details	email: abc@gmail.com password: ****	It should send error message.	Error message displayed.	Pass

Food name in the query.  Enter details to search 5 06 food item  Food name in the query.  It should display food item according to according to the query the query.
--

## **CHAPTER 4**

# **CONCLUSION AND LEARNING OUTCOMES**

#### 4.1 Conclusion

The "Khaidim" application allows the users to view all the food items and order them. Users can also view and add different foods of Khaidim. Users can view the items that were added in the cart and also can remove the item from the cart. Also, users can view the items that were added in the wish list and also can remove the item from the wish list. The application is easy to use and interactive making it a recreational activity for users. This project would not have been accomplished without the support and consultation provided by Premium Technologies Pvt. Ltd. The internship enabled the intern to gain practical work experience and, most importantly, teamwork skills. Through this internship, the intern has had the chance to learn about the cultural norms of the field and how work is done.

In Conclusion, the internship was highly helpful for the growth of one's profession and the experience gained through it would be valuable for future chances.

# 4.2 Learning Outcome

The intern gained a variety of technical skills in the field of developing mobile applications during the internship at Premium Technologies Pvt. Ltd. The intern gained knowledge of several soft skills, including teamwork, communication, time management, and the working culture of the sector. The major learning outcome during the internship of the author as:

- Acquired knowledge of dart programming language.
- Enhanced the ability to work with teams and experience of working in real and practical field.
- Accomplished new skills and gained confidence.
- Acquired the knowledge of Rest APIs.
- Learnt knowledge of organizational structure and workflow at the company.
- Advanced the work habits and attitude required for successful employment.

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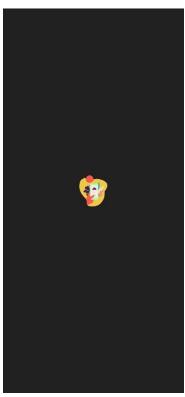
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# **APPENDICES**

## **Splash Screen**



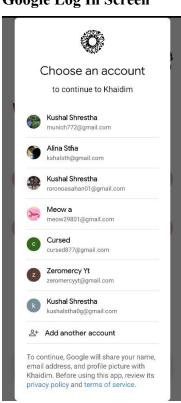
Log In Screen



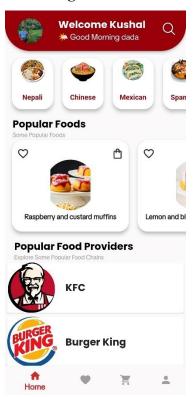
# Sign Up Screen



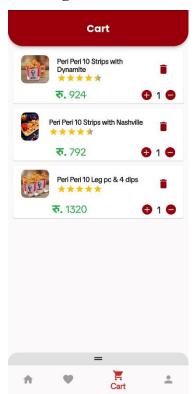
# Google Log In Screen



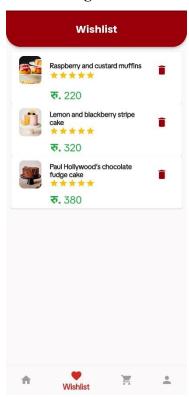
### **Home Page**



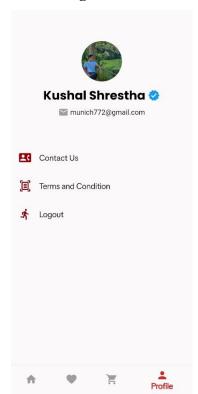
### **Cart Page**



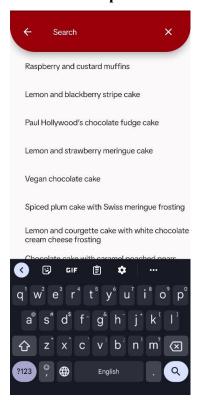
### Wishlist Page



# **Profile Page**



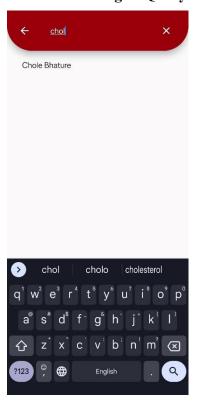
#### Search Bar Expanded



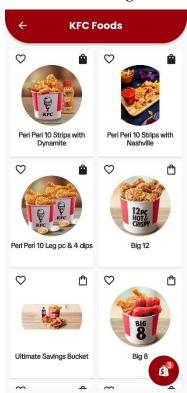
#### On Item on Search Press



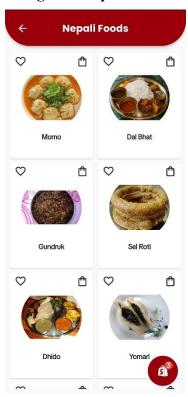
#### **Result according to Query**



#### **Food Provider Page**



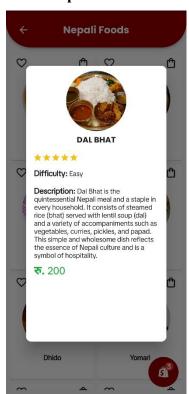
#### **Categories Expanded**



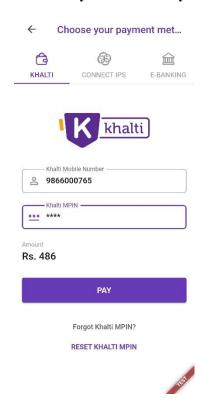
### Item on Homepage Expanded



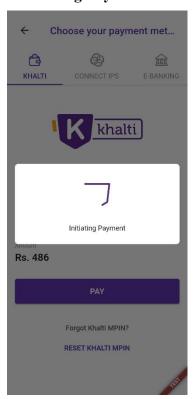
#### **Items Expanded**



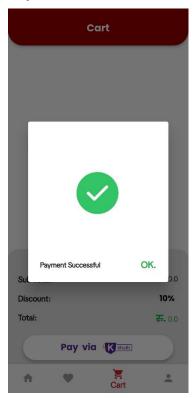
#### **Khalti Payment Gateway**



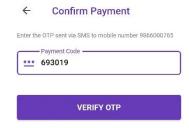
# **Initializing Payment**



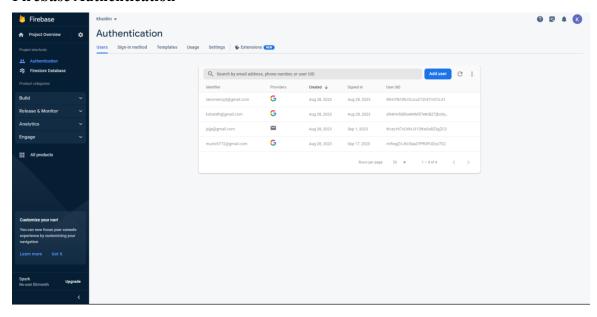
# **Payment Successful**



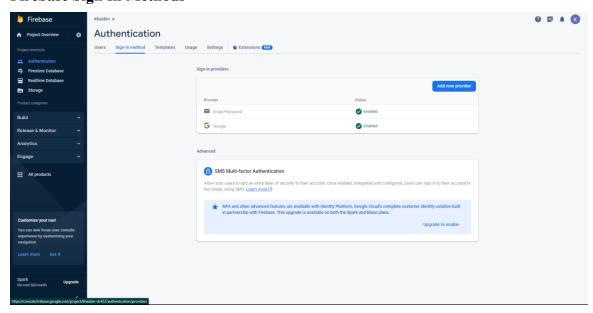
### **Khalti OTP Verification**



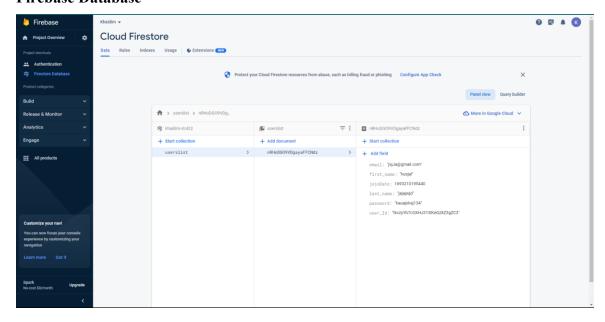
#### **Firebase Authentication**



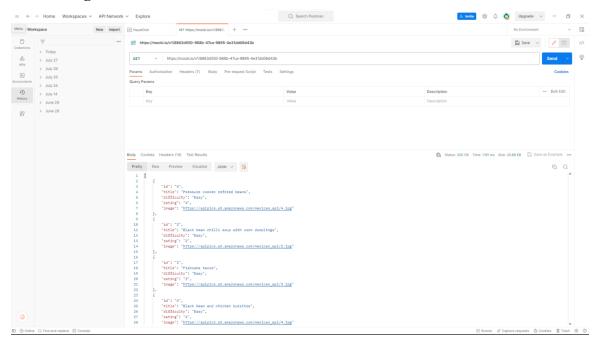
### Firebase Sign In Methods



#### **Firebase Database**



#### **API Testing in Postman**



#### **GitHub Repository**

