



INTERNSHIP REPORT

KUNAL GAONKAR

1913



REPORT OF INTERNSHIP DONE AT HELIXTECH INFOSYSTEMS PVT. LTD

SUBMITTED BY:

Kunal Gaonkar

1913

UNDER THE GUIDANCE OF

Mrs. Snehalatha Desai

(Senior Flutter Developer, HelixTech)

Mr. Niranjana Naik

(Project Manager, HelixTech)



Certificate from Company



Date: 04th May 2022

To Whomsoever It May Concern

Dear Sir/Ma'am,

It is our pleasure to write about Mr. Kunal Gaonkar, who has worked with Helix Techin Info Systems Pvt. Ltd. (hereinafter referred to as "HELIX") in the capacity of Software Developer Intern – Flutter from 13/01/2022 – till date.

During the aforementioned tenure of his work here, Mr. Kunal remained involved in his work with determination and sincerity. We found him active and competent in executing all assigned tasks.

Sincerely,

Ms. Valzera Rodrigues
HR/Admin Executive

Helix TechIN Info Systems Pvt. Ltd
CIN: U72300GA2014PTC007419

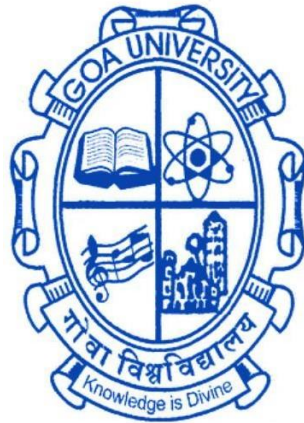
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GOA UNIVERSITY



GOA BUSINESS SCHOOL

CERTIFICATE OF EVALUATION

This is to certify that Mr. Kunal Gaonkar has been evaluated for the project work titled
“Report of Internship done at HelixTech Infosystems Pvt Ltd” undertaken at HelixTech
Infosystems Private Limited, Goa in partial fulfilment for the award of the degree in
Master of Computer Application.

Examiner 1

Examiner 2

Place: Goa University

Date: 5th June 2022

Dean, Goa Business School



Acknowledgement

Interning in a company is a golden opportunity for learning and self-development specially to have so many wonderful people led me through this internship period. The internship wouldn't be complete without expressing my gratitude and appreciation to all the people who made it possible.

I would like to thank *Mr. Kunal Kerkar* (CEO, HelixTech) for giving me the opportunity to intern at HelixTech.

My sincerest gratitude to *Mrs. Snehalatha Desai* (Senior Flutter Developer, HelixTech) and *Mr. Niranjan Naik* (Project Manager - Technical, HelixTech) for being my mentor and giving me the necessary guidance and support.

My great appreciation to *Mr. Nitin Gupta* (Project Lead, AIPL) and *Ms. Shruti Gawas* (Senior Mobile Developer, AIPL) for pushing me to the limits in order to enhance and polish my skills.

I would like to extend my gratitude to *Ms. Valzera Rodriguse* (HR, HelixTech) for being my friend and always helping me out whenever I was in dire need.

I would like to thank *Mr. Prasann Kavlekar* (Associate Software Engineers, HelixTech), who being my senior in college made me feel comfortable in a new environment and for continuously mentoring me in the technologies I was working in

I thank Prof. M.S. Dayanand (Dean, Goa Business School - Goa University), Mr. Ramdas Karmali (Prof. and TPO, MCA, Goa Business School - Goa University), *Ms. Jyoti Pawar* (Program Director, MCA, Goa Business School - Goa University), *Mr. Jarret Stevan Anthony Fernandes* (Assistant Prof, MCA, Goa Business School - Goa University) and all the faculty of MCA, Goa University for their constant encouragement and support during the project work.

Finally, I would like to express my gratitude towards the HelixTech family who were always ready to help me and guide me in all aspects of life. They have transformed me into a new and renewed person ready to face head-on any challenges that come my way.

-Kunal Gaonkar



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Introduction

This report is a short description of my full-time internship at HelixTech, Goa.

I joined as an Intern at HelixTech on 13st January 2022 and have been here since then. This report contains necessary information about the organization, the projects and mini projects I worked on and the other tasks and special trainings I completed in this internship period.

In the chapters that will follow, I will talk about the company, the work here, the culture, etc. Then, I shall elaborate on the projects I worked on, a brief information about the projects, the modules I built and the tasks I completed in those modules.

This report highlights my learning experience and my contributions to the organization as an intern. This will describe the knowledge that I gained by successfully completing the tasks that were assigned to me.

I'll also be talking about the tools and technologies that were used followed by my internship timeline.

I shall conclude by sharing my experience and how it has helped me to grow, both, on the personal and professional front.



Company Profile

In 2013, when the Indian start-ups had just started gaining momentum & Smartphones were picking up faster than ever, two new IT graduates started building mobile apps, making the most of this wave. Five years since and they've consulted close to 500+ Apps for over 100 clients across 6 continents. Their goal is simple – Amaze our clients by delivering high quality software which run smoothly, strategically & predictably.

Today, Helix Tech is an award winning mobile first technology partner to big and small entities, providing them end-to-end turnkey software solutions. It's voted as the company of the year by CIO review & has ranked among the top 30 companies to watch out for by Silicon Review.

They're running a non-profit initiative called HT for STUDENTS, where they educate along with their commitment towards being a practice school station for BITS. It comprises of training students in app development every summer at their HQ in Goa.

App Strategy

They help you see beyond your horizons & that's the pinnacle of their product design at Helix Tech. They've planned, developed & successfully launched hundreds of apps from scratch.



They dig deep into your business model, consumer challenges, and positioning to help you create a product that produces unique value. Their goal is always to convert your vision into reality in the most engaging way to ensure your customers are experiencing the best.



Mobile Design

Turning ideas into visually polished and smooth mobile apps comes as second nature to them. With their deep expertise in design and technology, they understand how to achieve your strategic goals. Their designers have mastered the art of delivering delightful products with exceptional interactions and seamless experience.



App Development

They bring the best mobile experiences by hiring the best talent that they can find. This way, when they put them together in a team, it results in an atmosphere where with different perspectives and challenges, everyone learns swiftly to deploy customized solutions for every project. Each project ensures personal development as well as the capability of the team.



Mobile Marketing

No matter what platform your users are on, their apps are carefully crafted to give your users a remarkable experience. This is a result of endless hours spent on product strategy, design and the functionality of your mobile app. Their apps are beautifully engineered which deliver measurable business outcomes.



App Support

At Helix Tech, they understand how important it is for a business to have an app that runs smoothly and in an expected manner, so they provide full support through our highly qualified and trained team.



Once the app has launched, it needs constant monitoring and updating. They offer 4 different support plans to choose from via which they analyse problems and solve them for a glitch free experience.



Project – Lupin Android App (Android Tablet)



Problem Statement

Front End: Allow Lupin clients (Medical Representative) to Apply for Leaves, File Expenses, Plan Schedule for their daily planner etc in one app, with both online and offline capabilities.

Back End: Store local data for offline usage, so the application does not require internet all the time and can be used on-the-go.

Overview

Lupin App is an Android Tablet application that the clients (Medical Representative staff) must download on an Android tablet and use it as a tool to manage all their filing tasks easier and save time.

It is an on-going project which is still under development.

Tools and Technologies used

- Flutter
- Dart
- Gradle
- Android Architecture components
- Git
- Hive (Local Database)
- Firebase (Analytics and Crashlytics)



My Contributions

I was assigned to the Lupic Android front-end development in the starting days of my internship, Task was to create a screen from scratch from the given images, which consists of the Query Module, after which I was told to learn to use Native Device Feature and Hive for our local database. My responsibilities included:

- To add features as I was briefed
- Increase ease of use
- Use modular, re-useable code
- Make use of Native device feature such as Camera.
- Test the features for bugs

My detailed contribution is as follows:

- **Query Screen**
 1. To build the screen with custom widgets that can be re-used throughout the lifecycle of the app whenever needed, across screens as well.
 2. To use native device feature, such as camera to capture image.
 3. Also, to use existing images from gallery
 4. Follow an modular approach, to create an model object to store a particular filed record data.
 5. To store and delete the data from Hive, later to be used for syncing.



Screenshot



Project –Bsv Android App (Android Tablet)



Problem Statement

Front End: Allow Bsv clients (Medical Representative) to Apply for Leaves, File Expenses, Plan Schedule for their daily planner etc in one app, with both online and offline capabilities.

Back End: Store local data for offline usage, so the application does not require internet all the time and can be used on-the-go.

Overview

Bsv App is an Android application that the clients (Medical Representative staff) must download on an Android tablet and use it as a tool to manage all their filing tasks easier and save time.

It is an on-going project which is still under development.

Tools and Technologies used

- Flutter
- Dart
- Gradle
- Android Architecture components
- Git
- Hive (Local Database)
- Firebase (Analytics and Crashlytics)



My Contributions

I was assigned to the Bsv front-end development in the starting days of my internship, after which I was told to learn and apply Localization or internationalization. My responsibilities included:

- To add features as I was briefed
- Increase ease of use
- Use modular, re-useable code
- Implement validation
- Apply localization.
- Test the features for bugs

My detailed contribution is as follows:

- **DCR Filing Module**

1. Going through the reporting module and make sure we can file.
2. Ensuring proper validation along with message in (Doctor reporting Screen).
3. Ensuring proper validation along with message in (Chemist reporting Screen).
4. Ensuring proper validation along with message in (Stockist reporting Screen).
5. Making Sure the data is saved properly after validations.
6. Ensuring that the Dcr details are synced to the server.

Leave Module

1. Making sure that the leaves can be filed through the leave module.
2. Adding validations.
3. Ensuring that the Leave filed are synced to the server.

- **Localization**

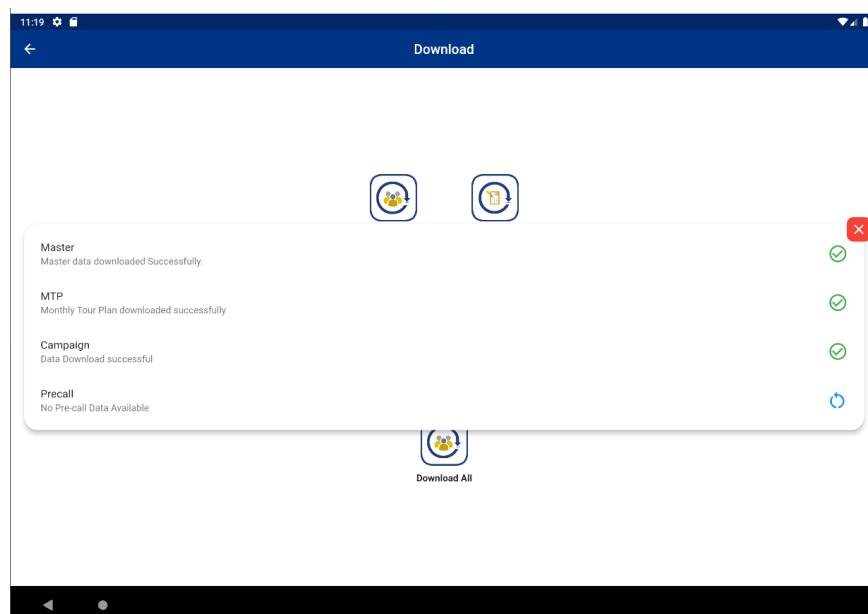
1. Setup Localization.
2. Adding all keys to the given modules.
3. Making sure the modules are translated from English to Spanish.



- Download Module

1. Optimizing the Ui using grid view.
2. Creating an download all option to make API calls(Master Data,MTP,Precall,Campaing),along with an progress indicator of downloading data.

Screenshot





Project –Lupin Otc Android App (Android Tablet/Mobile)



Problem Statement

Front End: Allow Lupin Otc clients (Medical Representative ,Manager) to Apply for Leaves, File Expenses, Plan Schedule for their daily planner etc in one app, with both online and offline capabilities.

Back End: Store local data for offline usage, so the application does not require internet all the time and can be used on-the-go.

Overview

Lupin otc App is an Android application that the clients (Medical Representative, Manager) must download on an Android tablet and use it as a tool to manage all their filing tasks easier and save time.

Tools and Technologies used

- Flutter
- Dart
- Gradle
- Android Architecture components
- Git
- Hive (Local Database)
- Firebase (Analytics and Crashlytics)



My Contributions

I was assigned to the Lupin otc front-end development during my internship, after which I was told to generate release Apk. My responsibilities included:

- To add features as I was briefed
- To check the listed bugs and fix them.
- Increase ease of use
- Use modular, re-useable code
- Make the application responsive (Tablet/mobile)
- Test the features for bugs
- Generate an apk.

My detailed contribution is as follows:

Debugging

1. Checking the issue list from testers and fixing them.
2. Optimizing the code

Responsive app

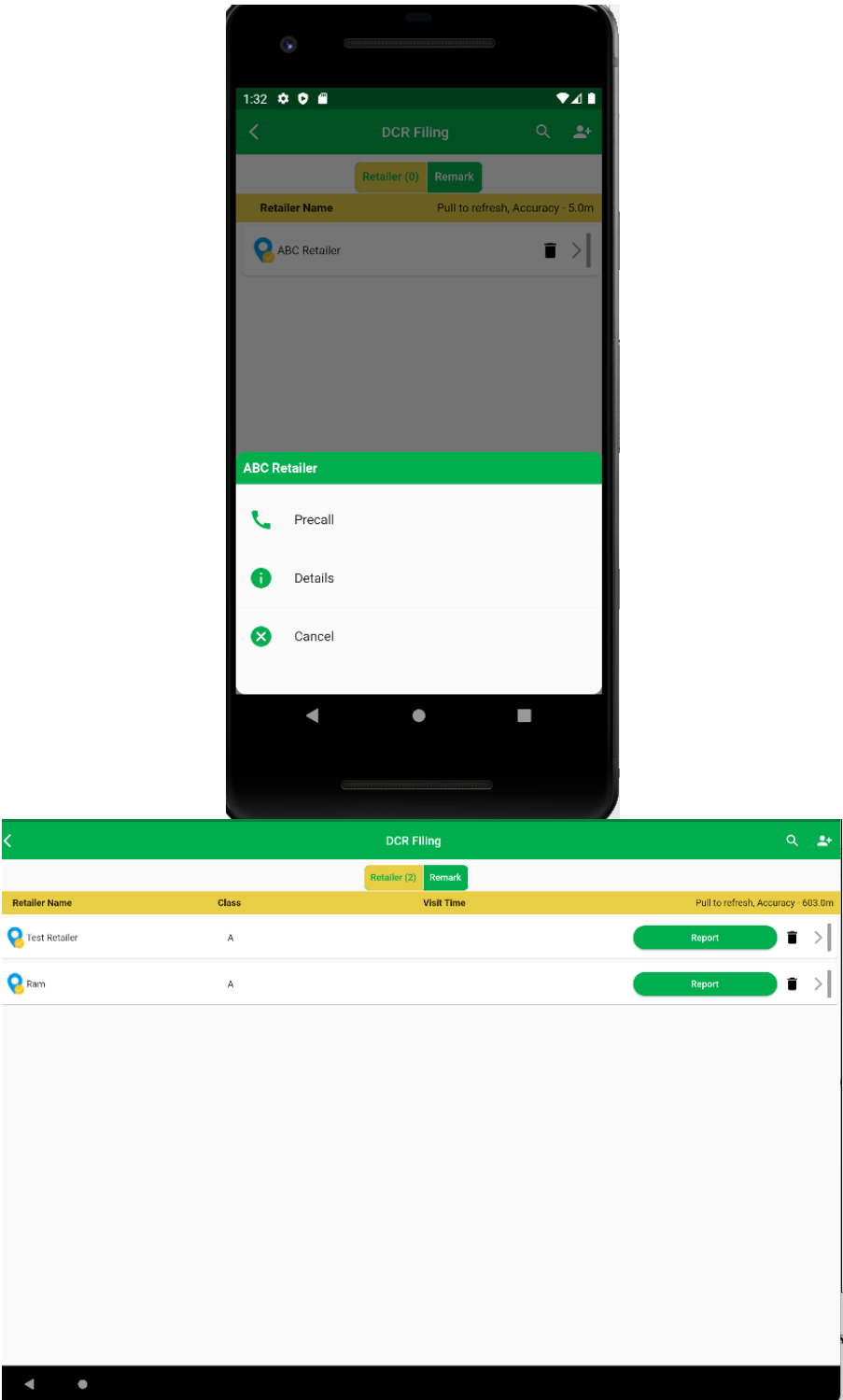
1. Making the app responsive both for tablet and mobile.
2. Creating reusable tabs to move back and forward through screens.
3. Enable or Disable tabs based on previous screen data

Testing

1. Testing the changelog.
2. Generating an release Apk .
3. Giving the Apk to the testers for testing.
4. Fixing the Uses issues after testing.



Screenshot





Project –G-force Android App (Android Mobile)



Problem Statement

Front End: Allow Gufic clients (Medical representative) to Apply for Leaves, File Expenses, Plan Schedule for their daily planner etc in one app, with both online and offline capabilities.

Back End: Store local data for offline usage, so the application does not require internet all the time and can be used on-the-go.

Overview

G-force App is an Android application that the clients (Medical Representative) must download on an Android Mobile and use it as a tool to manage all their filing tasks easier and save time.

It is deployed on google play store, and under development for additional features.

Tools and Technologies used

- Flutter
- Dart
- Gradle
- Android Architecture components
- Git
- Hive (Local Database)
- Firebase (Analytics and Crashlytics)



My Contributions

I was assigned to the G-force front-end development during my internship, after which I was told generate signed Apk and aab. My responsibilities included:

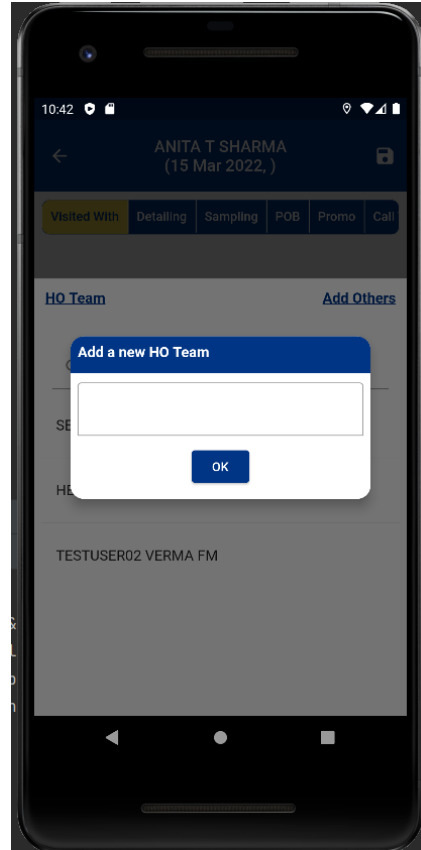
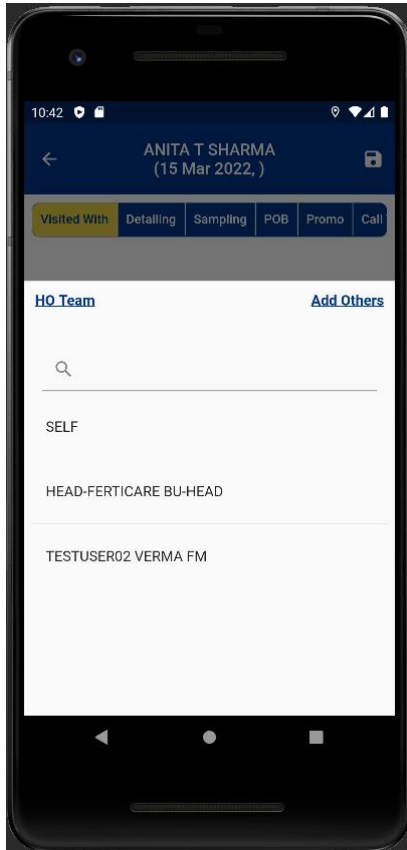
- To add features as I was briefed
- Increase ease of use
- Use modular, re-useable code
- Test the features for bugs
- Generate signed Apk
- Generate Android app bundle.

My detailed contribution is as follows:

- **Dcr Reporting Module**
 1. Create a feature to search and select in an dropdown list.
 2. Create a feature to add option in current dropdown
 3. Test the feature.
- **Compiling**
 1. Signing of APK with JKS key
 2. Generating an Android App Bundle.



Screenshots





Certifications and Trainings Completed under Internship and Self Study:

Udemy Certifications:

- **Flutter and Dart – Complete Guide [2021] for**
 1. Learning Flutter from Basics
 2. Running apps on Different Devices and Debugging
 3. Learning Widgets, Styling, Adding Logic
 4. Responsive and Adaptive UI
 5. Navigation
 6. State Management
 7. Working with User Input and Forms
 8. Sending Http Requests
 9. User Authentication
 10. Using Native Device Features



Tools and Technologies Used



Android

Android is a mobile operating system based on a modified version of the Linux kernel and other open-source software, designed primarily for touchscreen mobile devices such as smartphones and tablets.



Git

Git is a distributed version-control system for tracking changes in source code during software development. It is designed for coordinating work among programmers, but it can be used to track changes in any set of files.



Postman

Postman is a collaboration platform for API development. Postman's features simplify each step of building an API and streamline collaboration so you can create better APIs—faster.



Dart



Dart is a programming language designed for client development, such as for the web and mobile apps. It is developed by Google and can also be used to build server and desktop applications.



Flutter

Flutter is an open-source UI software development kit created by Google. It is used to develop cross platform applications for Android, iOS, Linux, Mac, Windows, Google Fuchsia, and the web from a single codebase.



Hive (Local Database)

Hive is a lightweight and blazing fast key-value database written in pure Dart. Inspired by Bitcask.



Firebase

Firebase is a platform developed by Google for creating mobile and web applications. The Firebase platform has 18 products split into three groups: Develop, Quality, and Grow.



Project Timeline / Project Diary

January 2022

Week 1: Learning Dart & Flutter

Week 2: Learning Dart & Flutter

Week 3: Making an app for json data (Test)

Week 4: Making an app for To-Do tasks (Test)

February 2022

Week 1: Learning extra concepts, code review

Week 2: Database Concepts-Learn Hive

Week 3: Implementation of feature in Lupin

Week 4: Creating the query screen in Lupin

March 2022

Week 1: Making Changes in Lupin Ui

Week 2: Implementing validations in Bsv

Week 3: Implementing Localization in Bsv

Week 4: Implementing Remark module and issue fixes in Lupin etc

April 2022

Week 1: Implementing Search filter in G-force

Week 2: Implementing Download all option in Bsv and ui changes in download screen



Week 3: Lupin otc issue fixes.

Week 4: Making Lupin Otc Responsive (Tablet/Mobile)

May 2022

Week 1: Making Lupin Otc Responsive (Tablet/Mobile)

Week 2: Lupin Use Case Testing

Week 3: Lupin Otc Tablet app bug fixing

Week 4: Implementing new features in Wallace

June 2022

Week 1: Testing G-Force app and generating apk and aab.



My reflections/ experiences of internship.

My Internship at HelixTech has been a wonderful and growing experience. Facing newer challenges every day is a norm here at HelixTech .

An un-dying hunger to learn more is something that is cultivated in employees here. Being in industry and working on live projects is not something one learns but experiences.

At HelixTech, I was never restricted to just my project team. I was provided freedom to interact, consult seek help and guidance, etc. from any colleague.

With proper guidance and mentorship made difficult tasks easier, and was able to make commitments and handle multiple project simultaneously, that transformed me into a new and renewed person ready to face head-on any challenges that come my way.

Overall, I'm very happy to be part of HelixTech. My best Wishes to everyone here.



References

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3. <https://flutter.dev/>
4. <https://git-scm.com/>
5. <https://firebase.flutter.dev/>
6. <https://docs.hivedb.dev/#/>
7. [Postman API Platform | Sign Up for Free](#)