

INTERNSHIP REPORT



Master of Computer Application
By
Melrick Lobo
1924

UNDER THE GUIDANCE OF

Mr. Bhasker Reddy Kottapally
(Co-Founder and CEO at GYTWorkz)

Mr. Gandhar Sanzagiry
(Principal Architect at GYTWorkz)

Mr. Tanmoy Karmakar
(SDE-2 Flutter Dev at GYTWorkz)

Mr. Gouse Jani Mohammed
(Product Manager at GYTWorkz)



May 31, 2022

CERTIFICATE

This is to certify that Mr. Melrick Carmo Lobo (Roll No: 1924), a final year student of Goa University has successfully completed the project "CUSTOMER RELATIONSHIP MANAGEMENT PLATFORM -Flutter App Development for Mobile and iPad" at GYTWorkz Technologies Pvt. Ltd, during his internship from 10-Jan-22 to 31-May-22.

Through the internship, Melrick displayed an ability to learn quickly and showed determination to broaden his skill set. He takes ownership of the tasks assigned and completed them with minimal supervision. He made significant contribution to the product during the course of its development.

We at GYTWorkz wish him a successful career ahead!

A handwritten signature in black ink, appearing to read 'Dachan', is written over a circular stamp or seal.

Yours sincerely
GYTWorkz Technologies Pvt Ltd

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Acknowledgement

Firstly I would like to express my deep and sincere gratitude towards Mr. Bhasker Reddy Kottapally, Co-Founder and CEO at GYTWorkz for giving me the opportunity to do an internship within the organization and for the constant support.

I would also like to express my deepest thanks to my supervisor Mr. Gandhar Sanzagiry, Principal Architect at GYTWorkz. His patience,encouragement, and immense knowledge were key motivations throughout my internship.

My most sincere gratitude to Mr. Tanmoy Karmakar SDE-2 Flutter Dev at GYTWorkz for being my mentor. He was incredibly helpful and supportive throughout this internship. Providing help and feedback whenever I was facing difficulties also being approachable for questions.

I would like to extend my gratitude to Mr. Gouse Jani Mohammed, Product Manager at GYTWorkz for his immense support, guidance and help.

I would like to thank Mr. Bharadwaj Sunkenapelly and Ms.Rachana Kothapally HR at GYTWorkz for helping me out whenever I was in need.

I would like to thank all the people that worked with me at GYTWorkz, for their patience and openness they created an enjoyable working environment.

Finally I am extremely grateful to my department and friends who helped me in successful completion of this internship.

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Introduction

This report is a description of my internship at GYTWorkz from 10th January 2022 to 31st May 2022. This report highlights my learning experience and my contribution as an intern. This report will also describe the knowledge that I have gained from successful completion of the tasks assigned to me.

It includes necessary information of the projects that I have worked on and technologies that I have learnt during my time at GYTWorkz.

This report also includes a brief description of the tools and technologies that I have worked with.

Company Profile

GYTworkz is a product engineering company of a committed team with one strong agenda : Design and develop for the cloud. We clearly understand : “Cloud is not a location, It is a Method”.

Started in 2019, GYTWorkz is strongly poised to partner with startup founders to make their ideas a reality. GYTWorkz has thus far helped multiple startup founders visualize their ideas. GYTWorkz has been successfully playing the role of a tech co-founder for various startups.

Startups GYTWorkz are associated with : FIIFI, ReFrame (Engage), Intro, IOTRL

Beyond startups, GYTWorkz has delivered solutions in Application Engineering (NodeJS, Java), Mobile App Development (Android, IOS, React Native, Flutter), Data Platforms (Pipelines, Analytics, BI) for global companies successfully.

Crypto Tracker Flutter App

Task

Create a live cryptocurrency tracking application. The application should track live cryptocurrency coin price, A page to view a coin in detail on selecting a particular coin along with a chart of that particular coin to view price change over different intervals. The app must also have an article page which provides links to the latest crypto news.

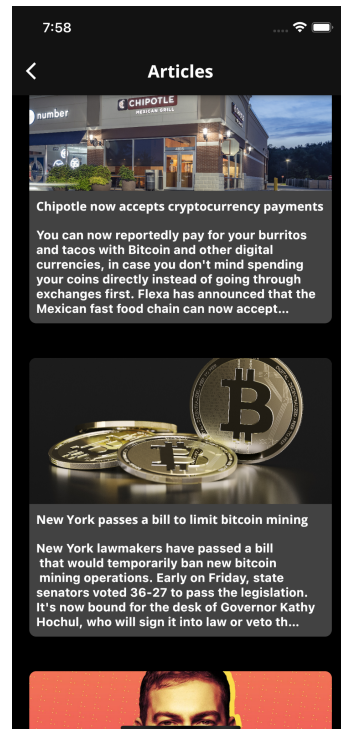
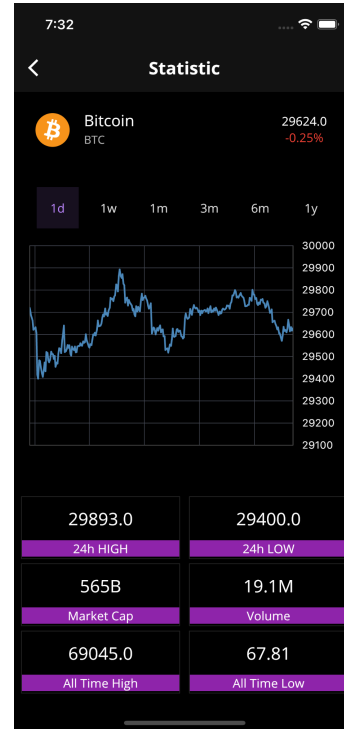
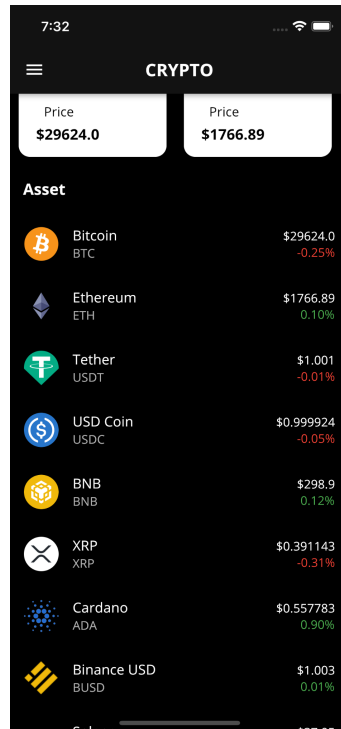
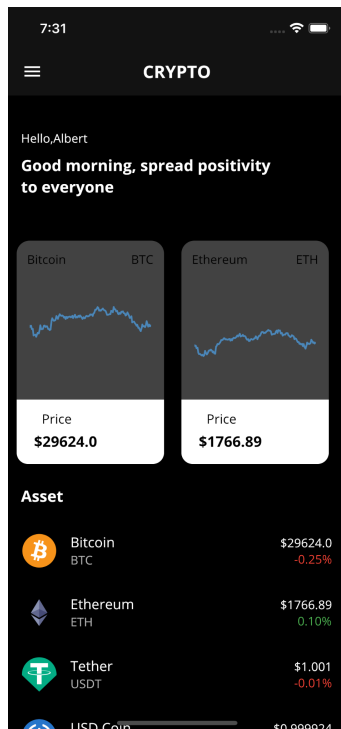
Tools and Technologies used

- Flutter
- Dart
- Git
- Syncfusion Charts

Tasks performed

- Created the UI for each of the screens.
- Used sizer package for responsiveness across different screen sizes
- Added page navigations
- Implemented providers a state management technique to manage data around the application.
- Implemented CoinGecko API for cryptocurrency coin data.
- Implemented Syncfusion charts to visualize coin data. The number of days can be switched accordingly.

Screenshots



Reframe Engage Check-In **[LIVE]**

Project Overview

The Reframe Engage Check-in solution helps schools monitor and manage their student's arrival more efficiently while providing real-time custom SMS text Notifications to parents and guardians. Each student attendance record is accessible, with parent contact information that can be updated at any time.

Tasks

- Build an app to be deployed to both iOS and Android platforms.
- Different application UI for mobile and iPad/Tab devices.
- Login flow for different schools.
- Implement barcode scanning feature, it must support camera scanning as well as barcode scanning device.
- On a barcode being scanned the student must be verified and checked-in.

Tools and technologies used

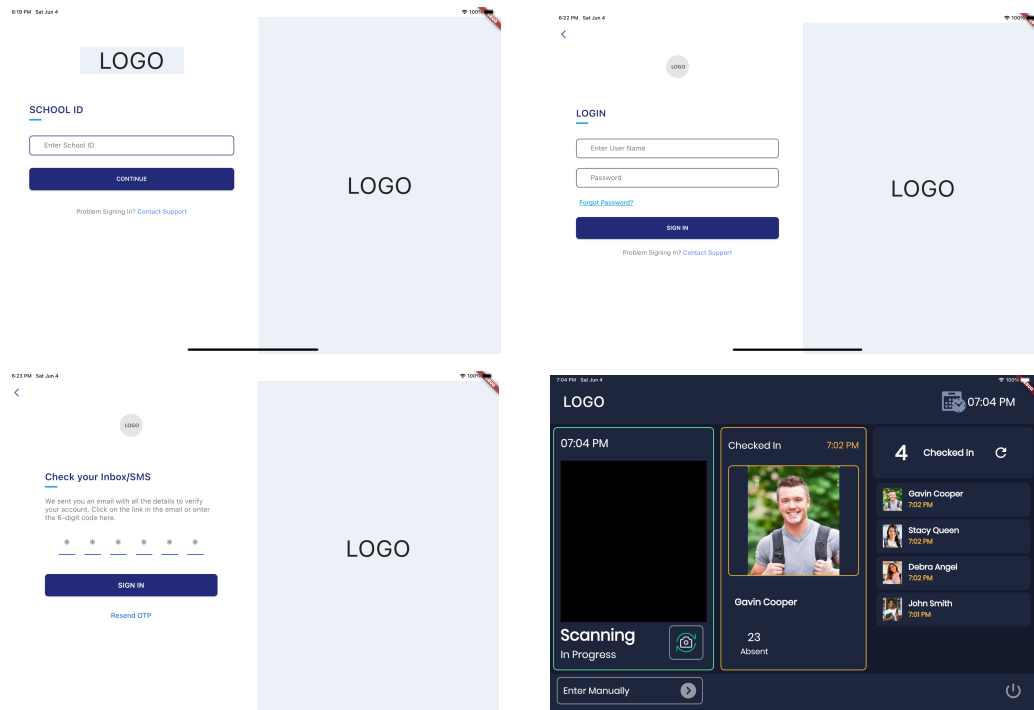
- Flutter
- Dart
- Git
- Mixpanel
- AWS

My Contribution

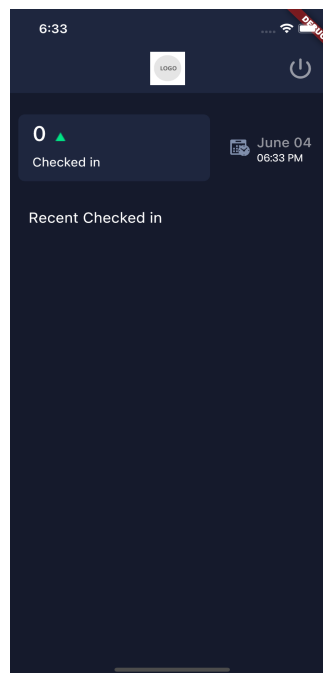
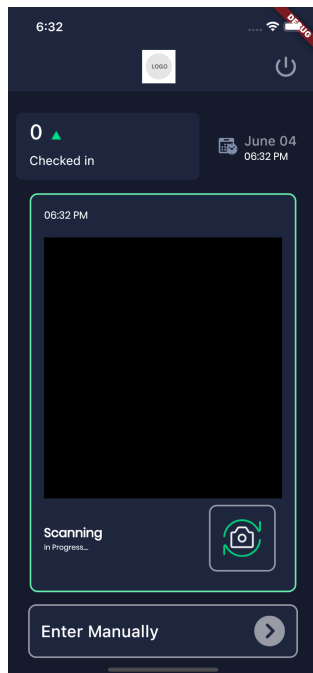
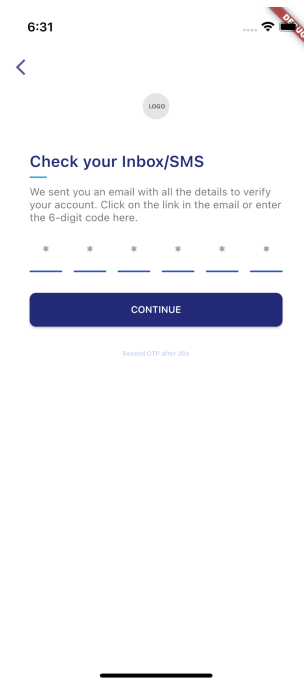
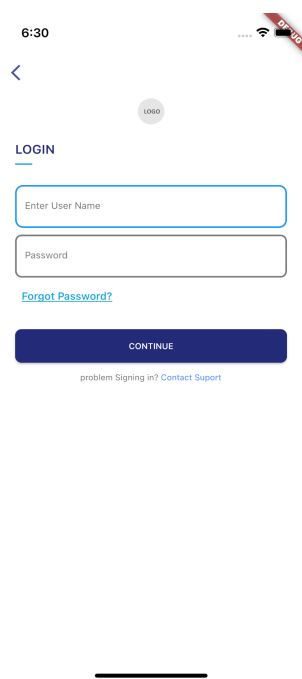
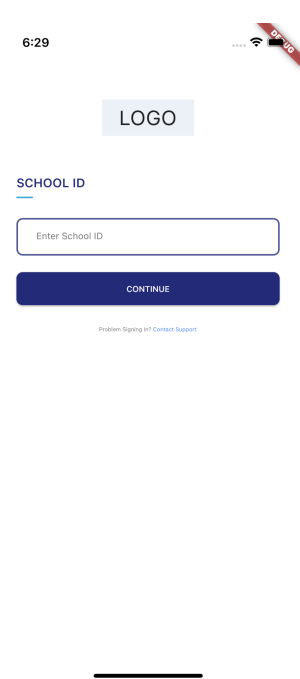
- Developed the UI for all the required screens for mobile and iPad/Tab.
- Added compatibility for camera barcode scanning and external barcode scanning device.
- Update homepage UI when a new student is checked-in.
- Implemented forgot password and organization details API.
- Modified login and check-in API's as required.
- Implemented auth interceptor.
- Worked on error handling.
- Added network checker to check for internet connection and disconnection.
- Added Text-To-Speech check-in responses.
- Published builds for QA testing on Testflight and Google play console.
- Coordinated with QA and Project Lead on bug fixes and features.
- Deployed production builds to App Store and Google Play Store.

Screenshots

- iPad/Tab Screens:



● Mobile Screens:



Weekly Internship Report

January 2022

Week 1:

- Orientation with supervisor and onboarding process
- Got assigned a mentor
- Introduced to the flutter team
- Started learning basic flutter and dart concepts

Week 2:

- Assigned a Flutter & Dart Udemy course

Week 3:

- Started working on the crypto app UI
- Developed the UI for each of the screens

February 2022

Week 4:

- Got the UI assessed by my mentor
- Made required fixes as mentioned

Week 5:

- Learnt provider state management technique
- When to use providers and stateful widget

Week 6:

- Implemented CoinGecko API for live coin data
- Added providers state management for the crypto tracker app

Week 7:

- Implemented Syncfusion graph
- Implemented CoinGecko graph API for data with different intervals
- Used Syncfusion graph to visualize coin data with different intervals

March 2022

Week 8:

- Bug fixing
- Code refactoring

Week 9:

- Got Assigned to Reframe Engage Check-In project
- Implemented responsify package for creating responsive UI based on device type
- Developed Homepage and Check-in screens for mobile device

Week 10:

- Developed Homepage screen for iPad/Tab device

Week 11:

- Developed Login screens for mobile and iPad/Tab device
- Got the screens assessed by my mentor and ux designer

Week 12:

- Made required changes
- Added screen navigation

April 2022

Week 13:

- Developed forgot password screen
- Learnt Bloc state management technique
- Integrated forgot password API

Week 14:

- Integrated organization details API
- Worked on decryption of encrypted data response

Week 15:

- Bug fixing
- Scanner testing

Week 16:

- Error handling
- UI fixes
- Fixed minor production bugs

May 2022

Week 17:

- Integrated external card reader scanning functionality

Week 18:

- Developed screen for no internet connection
- Implemented internet connection checker

Week 19:

- Worked on the login screens redesign

Week 20:

- UI fixes
- Code refactoring

June 2022**Week 21:**

- Added text-to-speech response
- Implemented API for data to be used for mixpanel

Tools and Technologies used



Flutter is Google's free and open-source UI framework for creating native mobile applications. Released in 2017, Flutter allows developers to build mobile applications with a single codebase and programming language. This capability makes building both iOS and Android apps simpler and faster.

The Flutter framework consists of both a software development kit (SDK) and their widget-based UI library. This library consists of various reusable UI elements, such as sliders, buttons, and text inputs.

Developers building mobile applications with the Flutter framework will do so using a programming language called Dart. With a syntax like JavaScript, Dart is a typed object programming language that focuses on front-end development.



Dart is a client-optimized language for developing fast apps on any platform. Its goal is to offer the most productive programming language for multi-platform development, paired with a [flexible execution runtime platform](#) for app frameworks.

The Dart language is type safe; it uses static type checking to ensure that a variable's value *always* matches the variable's static type. Sometimes, this is referred to as sound typing. Although types are mandatory, type annotations are optional because of type inference. The Dart typing system is also flexible, allowing the use of a [dynamic](#) type combined with runtime checks, which can be useful during experimentation or for code that needs to be especially dynamic.



The Syncfusion Flutter Widgets are a set of advanced custom widgets and file formats packages needed to create rich and high-quality cross-platform applications in iOS, Android, and Web using a single code base.



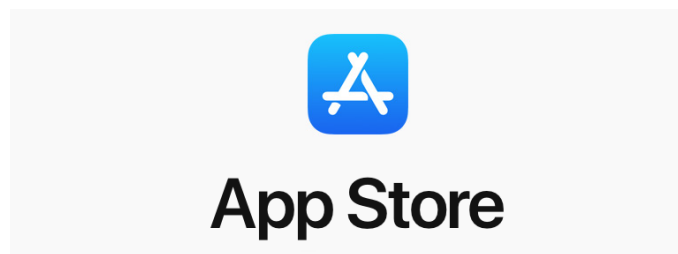
Git is a software for tracking changes in any set of files, usually used for coordinating work among programmers collaboratively developing source code during software development. Its goals include speed, data integrity, and support for distributed, non-linear workflows (thousands of parallel branches running on different systems)



Amazon web service is an online platform that provides scalable and cost-effective cloud computing solutions. AWS is a broadly adopted cloud platform that offers several on-demand operations like compute power, database storage, content delivery, etc., to help corporates scale and grow.



Google Play Developer Console is the platform that Google provides for Google Play and Android developers to publish and monitor their app's performance in the Google Play store.



App Store Connect is a suite of web-based tools for managing apps sold on the App Store for iPhone, iPad, Mac, Apple Watch, Apple TV, and iMessage. As a member of the Apple Developer Program, you'll use App Store Connect to submit and manage apps, invite users to test with TestFlight, add tax and banking information, access sales reports, and more.

My internship experience

After 5 months at GYTWorkz the skills I have gained and the knowledge I am taking away are immeasurable. I could not have asked for a better first internship experience to build a foundation for my career. I've learned from different units and people. I am grateful and thankful to my CEO, supervisor, mentor and project lead . I have made a lot of mistakes along the way but these mistakes were a crucial part of my internship as they helped me develop my problem solving skills. Coming into this internship I had very little professional experience , I really only knew the basics but working on a live project has given me a lot of confidence,motivation and an ample amount of learning and experience. Working on a live project has helped me improve my thinking capability inorder to produce better and efficient methods for tackling every new challenge I encounter. The culture at GYTWorkz is amazing everyone is kind and willing to help I have felt more like a family and due to this type of an ecosystem to say it has helped me improve my productivity on a personal level.

References

- <https://docs.flutter.dev/>
- <https://dart.dev/guides>
- <https://help.syncfusion.com/flutter/introduction/overview>
- <https://www.udemy.com/course/learn-flutter-dart-to-build-ios-android-apps/>