Team Report

Team Name: Team JOYKA
Title and ID Number: FIN01: Mobile Money
Project Name: B2C

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Introduction
B2C is an app developed to use Biometric Security measures aimed to advance and focus on the revolutionization of mobile banking. The name B2C stands for Biometric to Cash, as we are trying to take the current trend of payment methods to a new level. B2C app consist of various features such as peer to peer bank transfer, payment through UPI(Unified Payments Interface), mobile,DTH recharges. The app will have a wallet which will carry your money transfered from your bank account. During the registration process, you have to install your biometrics through your mobile phone where it will be stored in the server. By then you have to add a small amount of money to the wallet. The money stored in the wallet can be accessed by the customer to pay, even if the customer forgets his phone

Dependencies, Applications & Features:
The dependencies used in the making of the application are:

auto_size_text: 3.0.0
The size of the text in the app gets adapted according to the preference of the user's phone to make it more convenient.

cached_network_image: 3.2.1
It is a flutter library to show images from the internet and keep them in the cache directory.

easy_debounce: 2.0.1
It is an easy method call debouncer package for Dart/Flutter.
Debouncing is needed when there is a possibility of multiple calls to a method being made within a short duration of each other, and it's desirable that only the last of those calls actually invoke the target method.

local_auth: 2.1.0, local_auth_android: 1.0.6, local_auth_ios: 1.0.7, local_auth_platform_interface: 1.0.4 :
It is a plugin for Android and iOS devices to allow local authentication via fingerprint, touch ID, face ID, passcode, pin, or pattern. It is incorporated into our app to allow the device capture and store the users data.

flutter_animate: 1.0.0
A performant library that makes it simple to add almost any kind of animated effect in Flutter.

font_awesome_flutter: 10.1.0
This icon pack includes only the free icons offered by Font Awesome out-of-the-box.

from_css_color: 2.0.0
A package that creates Flutter Color instances from CSS color strings according to CSS Color.

go_router: 3.1.0
This package uses the Flutter framework's Router API to provide a convenient, url-based API for navigating between different screens. You can define URL patterns, navigate using a URL, handle deep links, and a number of other navigation-related scenarios.

google_fonts: 3.0.1
A Flutter package to use fonts from fonts.google.com.

intl: 0.17.0
Provides internationalization and localization facilities, including message translation, plurals and genders, date/number formatting and parsing, and bidirectional text.

json_path: 0.4.1

The JSONPath Expression Tester allows developers to test and evaluate JSONPath, the XPath-like syntax for JSON. Based on the popular JSON Formatter & Validator, the JSONPath Tester allows users to choose between PHP implementations of JSONPath.

page_transition: 2.0.4
This package gives you beautiful page transitions.

pin_code_fields: 7.4.0
A flutter package which will help you to generate pin code fields with beautiful design and animations. Can be useful for OTP or pin code inputs.

shared_preferences: 2.0.15
Flutter plugin for reading and writing simple key-value pairs. Wraps NSUserDefaults on iOS and SharedPreferences on Android.

timeago: 3.2.2
It is a dart library that converts a date into a humanized text.

url_launcher: 6.1.5
The URL Launcher is a Flutter plugin that allows your applications to launch web browsers, map applications, dialer applications, mail applications, and so on. The URL Launcher plugin works by creating intents to open applications using different URL schemes.

Language Used:
The app is designed on Flutter, which is an open source UI platform that is essentially used to design apps on cross platforms like Android, IOs, etc. Dart is the programming language used here to develop the B2C application. It is used for both the front end and back end of the application.

Software and Technologies:
The base of our code was supported via Visual Studio Code and Android Studio. The Flutter platform is used to develop our application using dart language. We have designed the UI of our app using Figma Software. By using specific packages we can design the app to send or receive money using UPI. Various security checks such as hand gesture filtration, fingerprint recognition and security pin will be used to secure the data of the end user. The bank account details and biometric data of the user will not be stored in the mobile app. All these data will be sent to the cloud after encryption and stored there. After real time comparison of the data, the payment and required procurement process will be done and the decrypted data will be sent to the mobile phone.

Advantages and disadvantages over other approaches:

The aim of B2C is to use biometrics and revolutionize e-banking. Hence, after studying a plethora of articles and laws relating to biometrics, we found the advantages and disadvantages in making our pitch work with different approaches and concluded to use what suits our idea the best.

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