

Custom project progress report

COS30017 Software Development for Mobile Devices 2023

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Overview of project

My project is a cryptocurrency app using Android Development with Kotlin. Like many typical apps in the market, such as CoinGecko, Coinbase, Kraken, etc., my app has some basic functionalities as follows:

- User authentication: The app allows users to create accounts, log in with them, or reset their password in case of forgetting.
- Wallet managing: It also creates and manages cryptocurrency wallets for different cryptocurrencies, e.g. Bitcoin, Ethereum,
- Viewing transaction history
- Buy and sell cryptocurrencies as will.

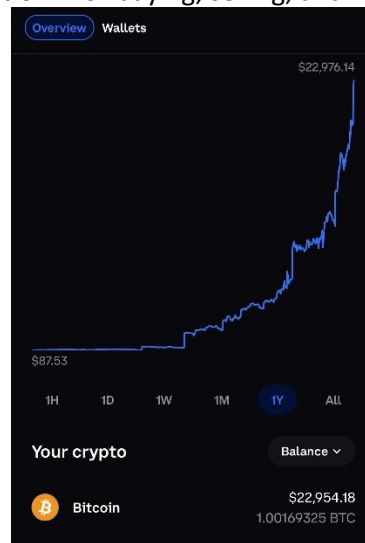
Weekly reports

Week 7

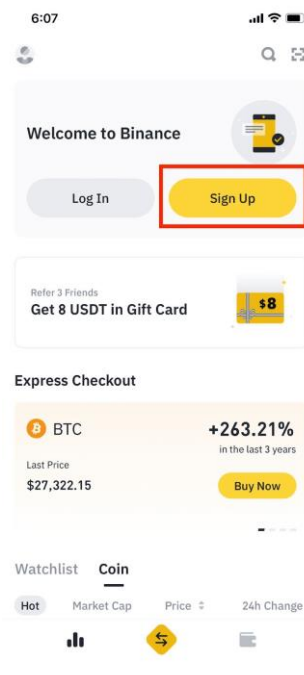
Note: I have completed Core 1, submitted Core 2, but not completed the discussion tasks. However, I decided to continue with the custom project as the resubmission for those discussions would not be available until 6 Oct 2023 (end of week 9)

In this step, I focused mainly in searching and referring to the cryptocurrency applications on the market, especially those available on the Android platform:


- Coinbase: In my opinion, this app has an user-friendly interface, ideal for beginners. It offers a secure and regulated platform for buying, selling, and managing cryptocurrencies.



- Binance: This offers not only a wide range of cryptocurrencies for trading, but also additional features like advanced charting tools. It's one of the most popular app among experienced traders.








- Kraken: I firmly believe that this app is well-known for its strong security features, providing access to a variety of cryptocurrencies and trading pairs.



Get cryptocurrency prices for EUR

145 assets.

Search all cryptocurrencies

	Bitcoin BTC	€39,971.10 -4.09%
	Ethereum ETH	€2,968.78 -3.69%
	Tether USD USDT	€0.92 -0.06%
	USD Coin USDC	€0.92 -0.07%
	Terra LUNA	€100.26 -6.91%

In the following week (Week 8), I think I will try to complete the Authentication feature of the app (Login/Signup). I prefer to use the Google Firebase's authentication functionality.

Week 8

Note: I have completed Core 1, submitted Core 2, but not completed the discussion tasks. However, I decided to continue with the custom project as the resubmission for those discussions would not be available until 6 Oct 2023 (end of week 9)

To begin with, I have set up the repository for the Custom Project via the Github Classroom link on Canvas:

<https://github.com/SoftDevMobDev-2023-Classrooms/customproject1-trungkiennguyen22082004>

SoftDevMobDev-2023-Classrooms / customproject1-trungkiennguyen22082004

code Issues Pull requests Actions Projects Wiki Security Insights

customproject1-trungkiennguyen22082004 Private Watch 1

master 1 branch 0 tags Go to file Add file Code

trungkiennguyen22082004 9/28/2023 Commit - Initial Commit 022d7f0 1 hour ago 1 commit

.idea

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1 hour ago

app

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1 hour ago

gradle/wrapper

9/28/2023 Commit - Initial Commit

1 hour ago

report

9/28/2023 Commit - Initial Commit

1 hour ago

.gitignore

9/28/2023 Commit - Initial Commit

1 hour ago

build.gradle

9/28/2023 Commit - Initial Commit

1 hour ago

gradle.properties

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gradlew

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1 hour ago

gradlew.bat

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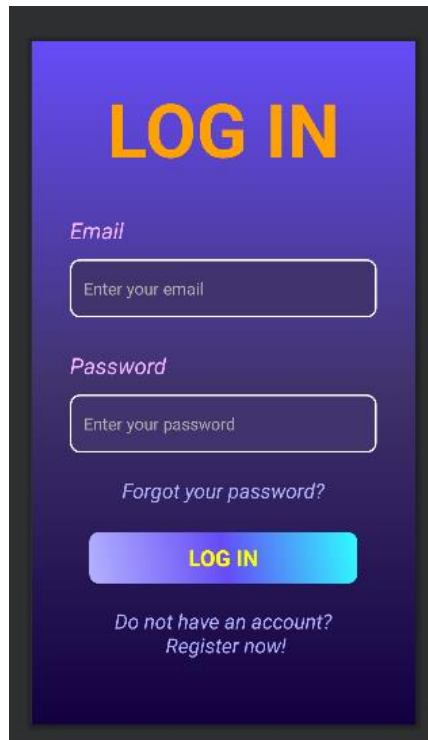
1 hour ago

settings.gradle

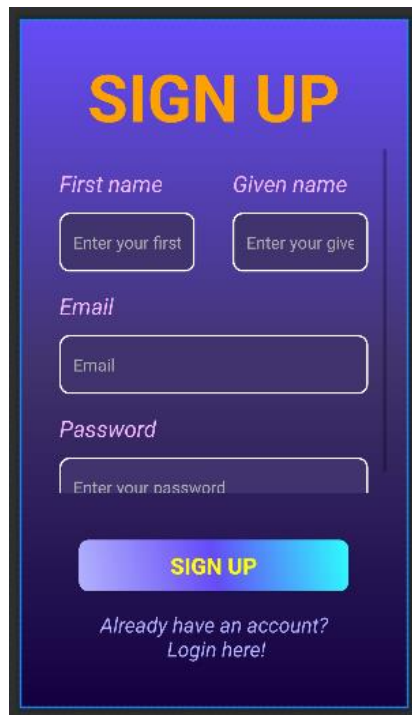
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1 hour ago

For the Authentication task, I have implemented two activities, including LoginActivity and SignupActivity.

The LoginActivity layout is a vertical form with a dark blue gradient background. At the top, the text "LOG IN" is displayed in large, bold, orange capital letters. Below this, the label "Email" is followed by a text input field containing the placeholder "Enter your email". The label "Password" is followed by a text input field containing the placeholder "Enter your password". Below the password field, the text "Forgot your password?" is displayed. A large, rounded rectangular button with a blue-to-yellow gradient and the text "LOG IN" in bold yellow capital letters is positioned below the "Forgot your password?" link. At the bottom, the text "Do not have an account? Register now!" is displayed in a smaller font.

LoginActivity's layout

The SignupActivity layout is a vertical form with a dark blue gradient background. At the top, the text "SIGN UP" is displayed in large, bold, orange capital letters. Below this, the labels "First name" and "Given name" are positioned above two separate text input fields. The first input field contains the placeholder "Enter your first" and the second contains "Enter your give". Below these, the label "Email" is followed by a text input field containing the placeholder "Email". The label "Password" is followed by a text input field containing the placeholder "Enter your password". A large, rounded rectangular button with a blue-to-yellow gradient and the text "SIGN UP" in bold yellow capital letters is positioned below the password field. At the bottom, the text "Already have an account? Login here!" is displayed in a smaller font.

SignupActivity's layout

I have use the Google Firebase's functionality of Authentication using Email/Password:

- Login: Using the method “signInWithEmailAndPassword()” of FirebaseAuth

```
_auth.signInWithEmailAndPassword(email, password).addOnCompleteListener(this)
{task ->
    prgBar.visibility = View.GONE

    // If login successfully
    if (task.isSuccessful)
    {
        Log.d(TAG, msg: "signInWithEmail:success")
        Toast.makeText(context: this, text: "Login successfully.", Toast.LENGTH_SHORT).show()

        startActivity(Intent(applicationContext, MainActivity::class.java))
        finish()
    }
    // If login failed
    else
    {
        Log.w(TAG, msg: "signInWithEmail:failure", task.exception)
        Toast.makeText(context: this, task.exception?.localizedMessage, Toast.LENGTH_SHORT).show()
    }
}
```

- Signup: Using the method “createUserWithEmailAndPassword()” of FirebaseAuth

```
_auth.createUserWithEmailAndPassword(email, pwd).addOnCompleteListener(this)
{ task ->
    prgBar.visibility = View.GONE

    if (task.isSuccessful)
    {
        // If sign up successfully
        Log.d(TAG, msg: "createUserWithEmail:success")
        Toast.makeText(context: this, text: "Register successful.", Toast.LENGTH_SHORT).show()

        startActivity(Intent(applicationContext, LoginActivity::class.java))
        finish()
    }
    else
    {
        // If sign up failed
        Log.w(TAG, msg: "createUserWithEmail:failure", task.exception)
        Toast.makeText(context: this, task.exception?.localizedMessage, Toast.LENGTH_SHORT).show()
    }
}
```

I have use “Signup” to create some new users for testing:

Users

Sign-in method

Templates

Usage

Settings

Extensions NEW

Search by email address, phone number, or user UID

Add user

Identifier	Providers	Created <div>↓</div>	Signed In	User UID
test.email.1@test.com	<div></div>	Sep 29, 2023	Sep 29, 2023	B2Eebwt3p7cpyQBCmITsoM09ng...

Rows per page:

50

1 - 1 of 1

Week 9

[NOTE: as of week 9, if you have not completed Core 1, not completed Core 2, or not completed the discussion tasks (either forgot or were marked unsatisfactory), you will also need to justify why you should be encouraged to continue with a custom project. There is no point focusing on this task when the basics are not complete and your progress report will be marked as incomplete.]

Week 10

[NOTE: as of week 10, if you have not completed Core 1, not completed Core, not submitted Core 3 nor an extension task, you will also need to justify why you should be encouraged to continue with a custom project. There is no point focusing on this task when the basics are not complete and your progress report will be marked as incomplete.]

Week 11

[NOTE: as of week 11, if you have not submitted/completed all other Core/Extension tasks, you will also need to justify why you should be encouraged to continue with a custom project. There is no point focusing on this task when the basics are not complete and your progress report will be marked as incomplete.]

Level 1: Design evidence

Level 2: App evidence

Level 3: Extended research evidence

References