

Objective

Create a CurrencyListFragment that can be reused for different purposes, such as displaying Crypto Currency and Fiat Currency.

Additionally, create a DemoActivity to showcase the functionality of the CurrencyListFragment.

Requirement

Technical

- Kotlin
- Follow [google recommended architecture](#)
- Dependency Injection
- Unit Testing (preferred)

Overview

- The CurrencyListFragment is expected to receive an ArrayList of CurrencyInfo objects to create the UI.
- The DemoActivity should provide two datasets, Currency List A and Currency List B, which contain CurrencyInfo objects to be queried from the local database.
- The DemoActivity should also include five buttons for demonstrating various functionalities:
 - o The first button is responsible for clearing the data in the local database.
 - o The second button is used to insert the data into the local database.
 - o The third button changes the CurrencyListFragment to use Currency List A - Crypto.
 - o The fourth button changes the CurrencyListFragment to use Currency List B - Fiat.
 - o The fifth button displays all CurrencyInfo objects that can be purchased from Currency List A and B.
- Additionally, the CurrencyListFragment should provide a search feature that can be cancelled when the user clicks the back or close button.
- Furthermore, the CurrencyListFragment should include an empty view for displaying an empty list.
- Lastly, it is crucial that all IO operations, including database or network access, are not performed on the UI Thread to ensure smooth execution.

Search term matching criteria

A coin will match if:

- The coin's name (e.g. Bitcoin) *starts with* the search term
 - **Example 1**
Query: `foo`
Matches these coin names: Foobar
Does not match: Barfoo
 - **Example 2**
Query: `Ethereum`
Matches these coin names: Ethereum, Ethereum Classic
Does not match: -

- OR -
- The coin's name contains a partial match with a ` ` (space) prefixed to the search term
 - **Example**
Query: `Classic`
Matches these coin names: Ethereum Classic
Does not match: Tronclassic

- OR -
- The coin's symbol starts with the search term
 - **Example**
Query: `ET`
Matches these symbols: ETH, ETC, ETN
Does not match: BET

Data Model

Model Description

CurrencyInfo

Field Name	Description
id	The db primary key from server
name	The display name of the currency
symbol	The display symbol
code	Fiat currency code, ISO 4217

Data sample

Currency List A - Crypto

```
[
  {
    "id": "BTC",
    "name": "Bitcoin",
    "symbol": "BTC"
  },
  {
    "id": "ETH",
    "name": "Ethereum",
    "symbol": "ETH"
  },
  {
    "id": "XRP",
    "name": "XRP",
    "symbol": "XRP"
  },
  {
    "id": "BCH",
    "name": "Bitcoin Cash",
    "symbol": "BCH"
  },
  {
    "id": "LTC",
    "name": "Litecoin",
    "symbol": "LTC"
  },
]
```













```
{
  "id": "EOS",
  "name": "EOS",
  "symbol": "EOS"
},
{
  "id": "BNB",
  "name": "Binance Coin",
  "symbol": "BNB"
},
{
  "id": "LINK",
  "name": "Chainlink",
  "symbol": "LINK"
},
{
  "id": "NEO",
  "name": "NEO",
  "symbol": "NEO"
},
{
  "id": "ETC",
  "name": "Ethereum Classic",
  "symbol": "ETC"
},
{
  "id": "ONT",
  "name": "Ontology",
  "symbol": "ONT"
},
{
  "id": "CRO",
  "name": "Crypto.com Chain",
  "symbol": "CRO"
},
{
  "id": "CUC",
  "name": "Cucumber",
  "symbol": "CUC"
},
{
  "id": "USDC",
  "name": "USD Coin",
  "symbol": "USDC"
}
]
```

Currency List B - Fiat

```
[
  {
    "id": "SGD",
    "name": "Singapore Dollar",
    "symbol": "$",
    "code": "SGD"
  }, {
    "id": "EUR",
    "name": "Euro",
    "symbol": "€",
    "code": "EUR"
  }, {
    "id": "GBP",
    "name": "British Pound",
    "symbol": "£",
    "code": "GBP"
  }, {
    "id": "HKD",
    "name": "Hong Kong Dollar",
    "symbol": "$",
    "code": "HKD"
  }, {
    "id": "JPY",
    "name": "Japanese Yen",
    "symbol": "¥",
    "code": "JPY"
  }, {
    "id": "AUD",
    "name": "Australian Dollar",
    "symbol": "$",
    "code": "AUD"
  }, {
    "id": "USD",
    "name": "United States Dollar",
    "symbol": "$",
    "code": "USD"
  }
]
```

UI

Normal State

CRYPTOCURRENCY		
	Crypto.com	MCO >
	Crypto.com Chain	CRO >
	Bitcoin	BTC >
	USDM	USDM >
	TrueUSD	TUSD >
	Ethereum	ETH >
	Binance Coin	BNB >
	Litecoin	LTC >
	OmiseGO	OMG >
	XRP	XRP >
	Binance Chain	BNB >

Searching State



b



Bitcoin

BTC



Binance Coin

BNB



Bitcoin Cash

BCH



Basic Attention Token

BAT



Empty State

