hElpp: a crypto market developed in java

hElpp is a fictional crypto market where users can buy and sell cryptocurrencies with real-time data updates on prices

Software Requirements: java 19 installed.
Hardware Requirements: no particular hardware required to run this application

Related Systems:
Etoro, bitstamp
pros: more functionalities, more secure, better ui
cons: ...

User Stories:
1) As a crypto investor, I want to browse a variety of cryptocurrencies and their current market prices, so that I can make investments based on real-time data

2) As a crypto holder, I want to monitor the cryptocurrencies that I own, so that I can keep a close watch on my investments

3) As a financial advisor, I want to have followers who view and copy my investments, so that I can grow in popularity and reputation

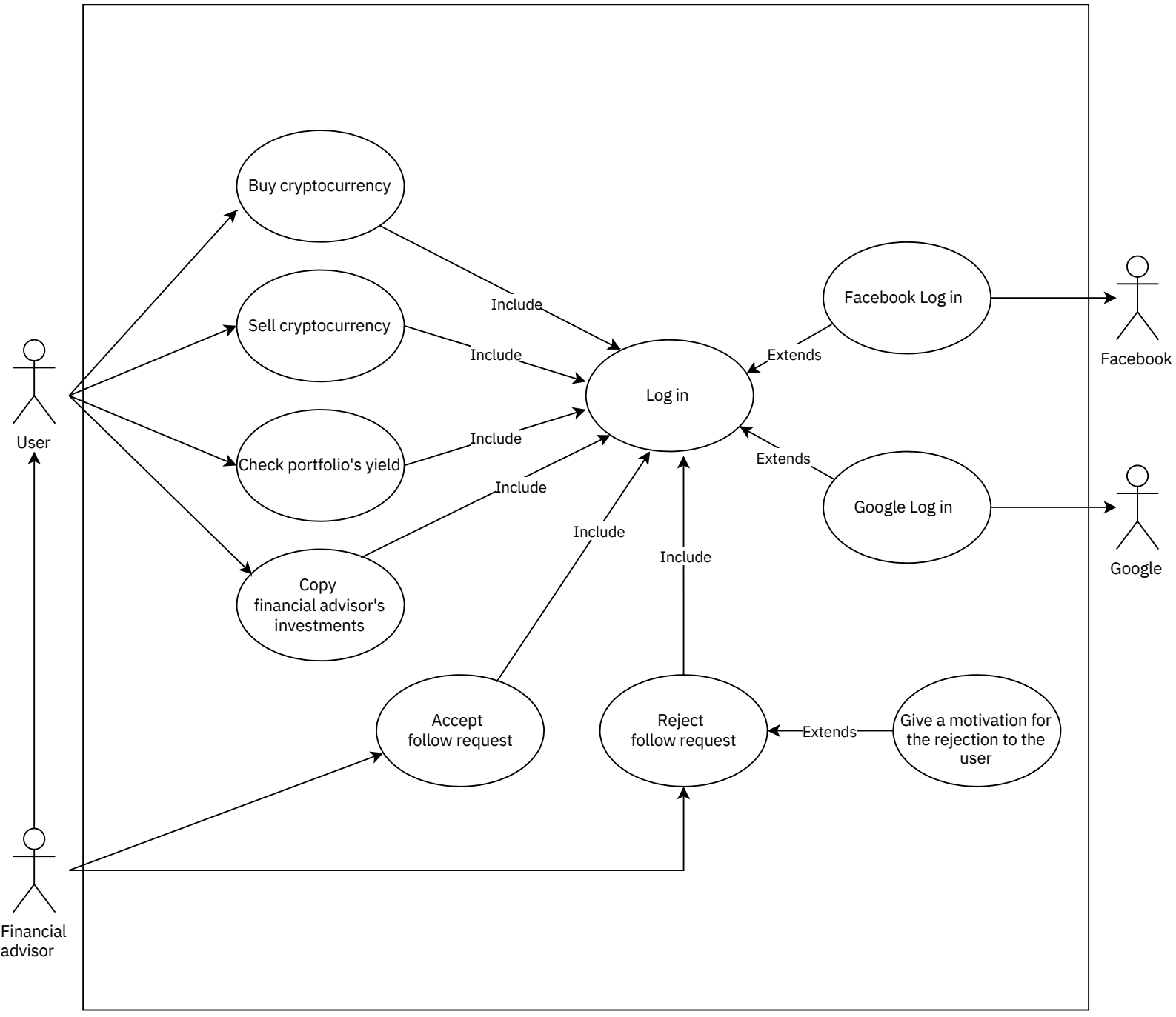
Functional Requirements:

1) The system shall provide multiple payment methods for purchasing cryptocurrencies, such as credit/debit cards and bank transfers

2) The system shall display a list of available cryptocurrencies along with their current market prices

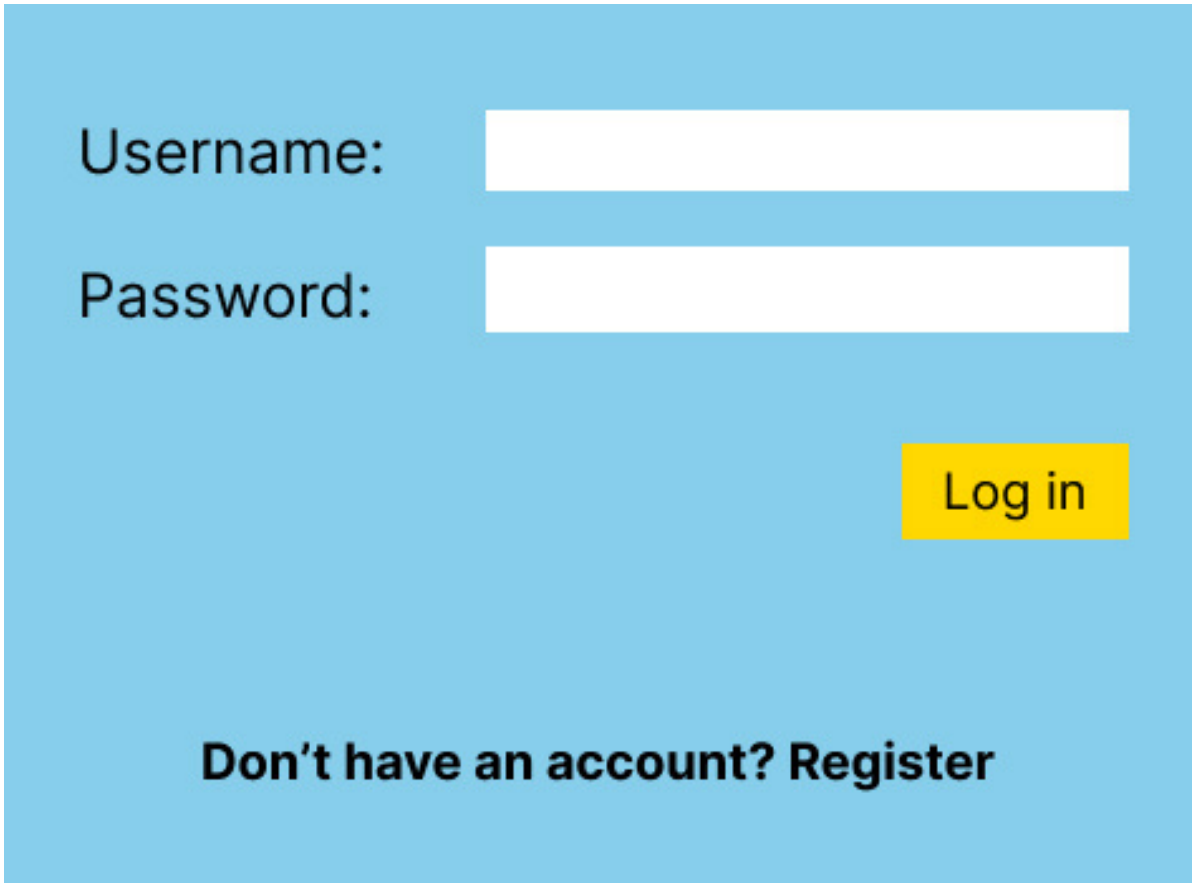
3) The system shall check the user's funds before proceeding with purchase and withdrawal operations

Use Case Diagram



StoryBoards

Login Page



Main Menu Page

Profile

Buy Crypto

Portfolio

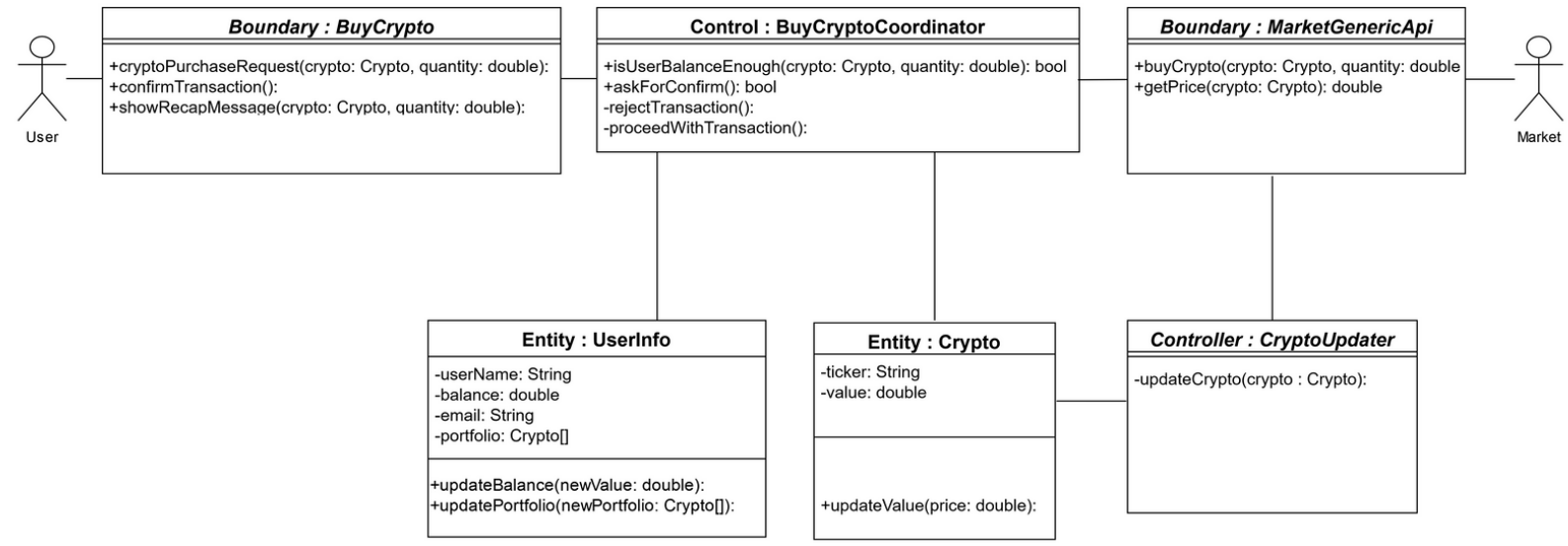
Deposit

Withdraw

Balance: 1000 €

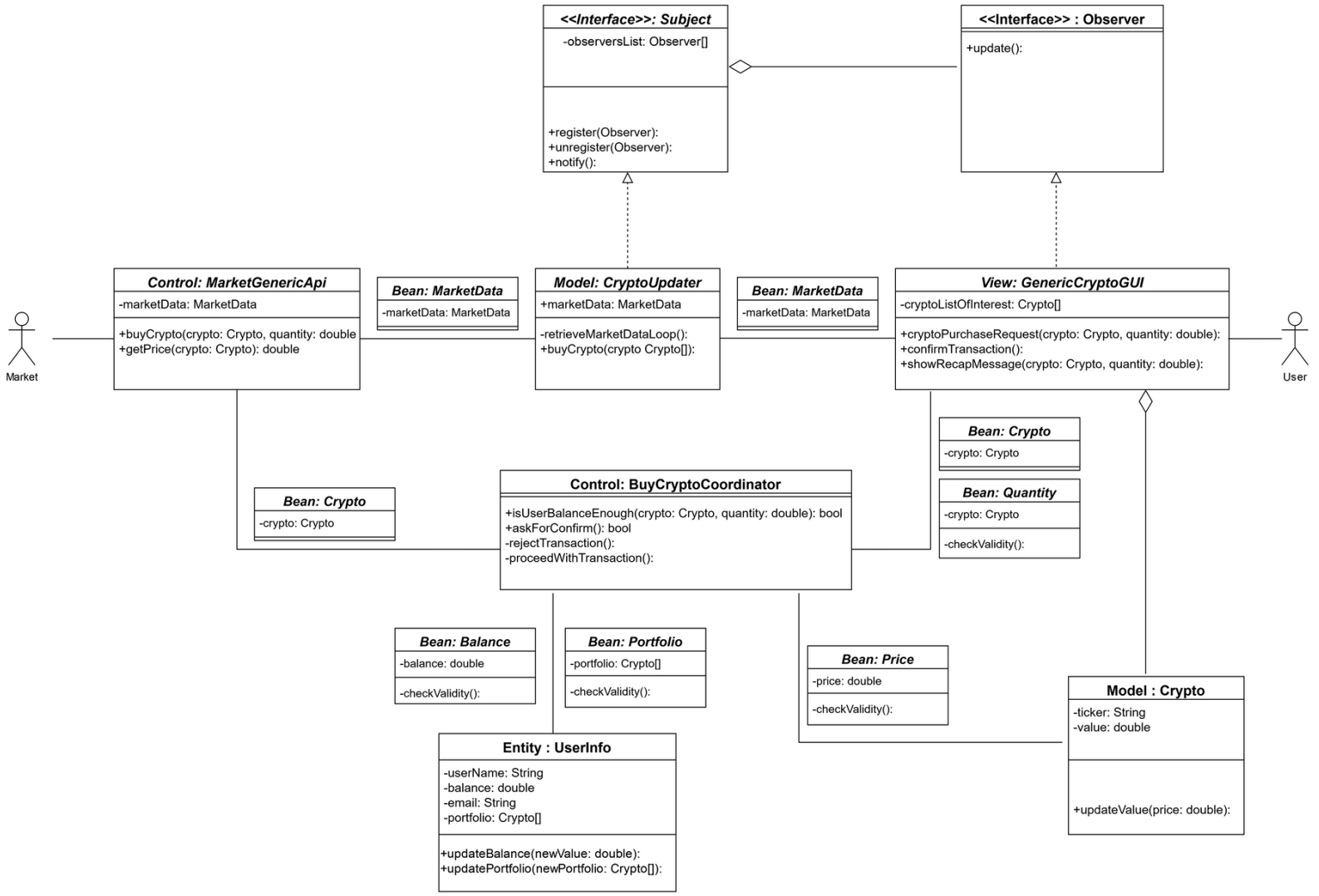
hELPP

Bce diagram


Boundary : BuyCrypto
+cryptoPurchaseRequest(crypto: Crypto, quantity: double):
+confirmTransaction():
+showRecapMessage(crypto: Crypto, quantity: double):
Control : BuyCryptoCoordinator
+isUserBalanceEnough(crypto: Crypto, quantity: double): bool
+askForConfirm(): bool
-rejectTransaction():
-proceedWithTransaction():
Boundary : MarketGenericApi
+buyCrypto(crypto: Crypto, quantity: double
+getPrice(crypto: Crypto): double
User
Market
Entity : UserInfo
-userName: String
-balance: double
-email: String
-portfolio: Crypto[]
+updateBalance(newValue: double):
+updatePortfolio(newPortfolio: Crypto[]):
Entity : Crypto
-ticker: String
-value: double
+updateValue(price: double):
Controller : CryptoUpdater
-updateCrypto(crypto : Crypto):

Mvc diagram

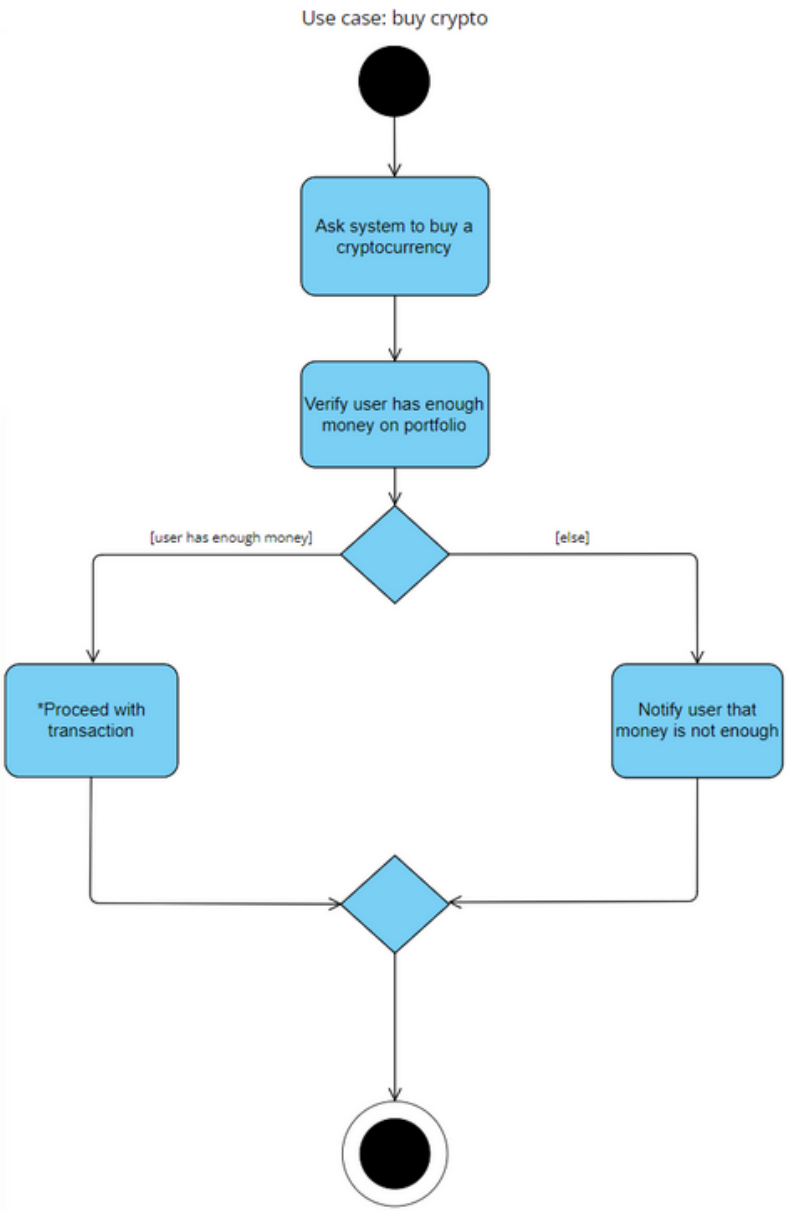
Primary pattern: Observer

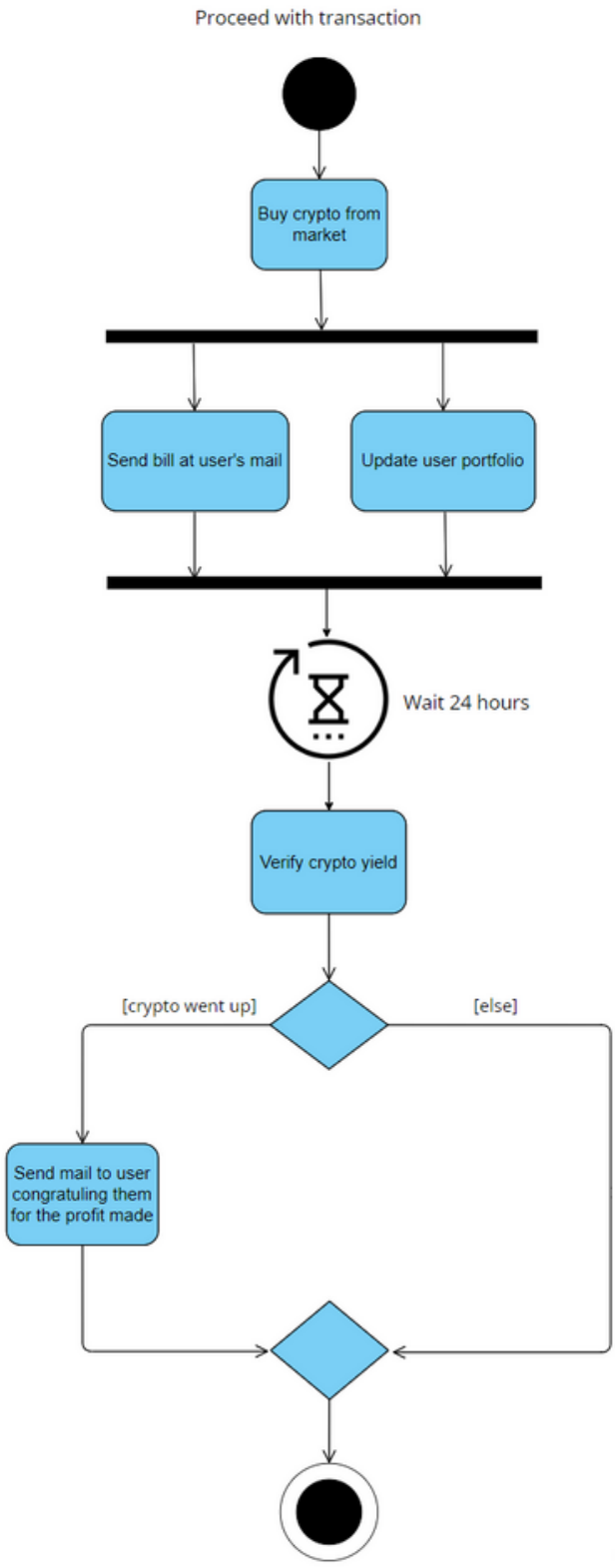


Secondary patterns used: Strategy, Singleton

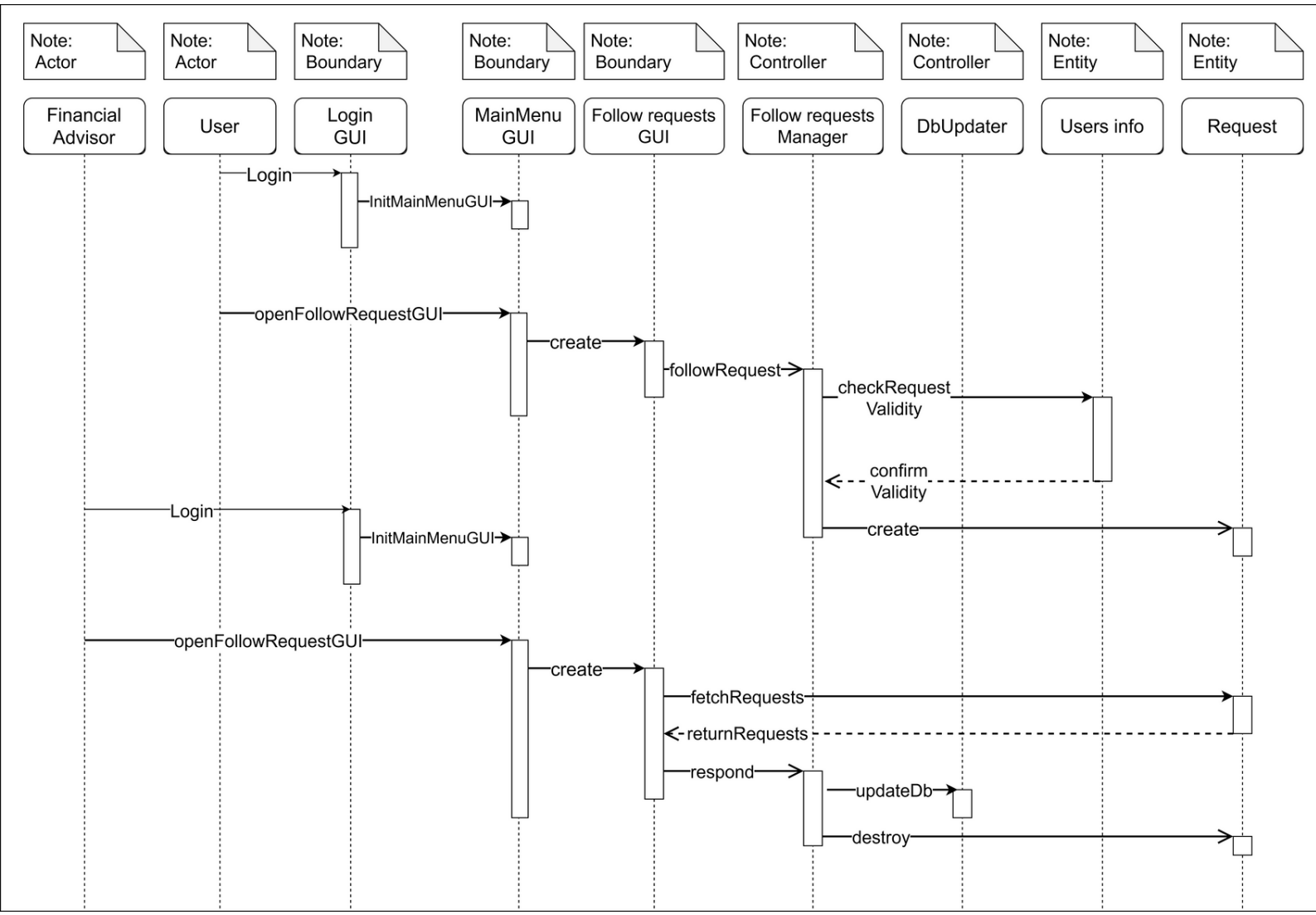
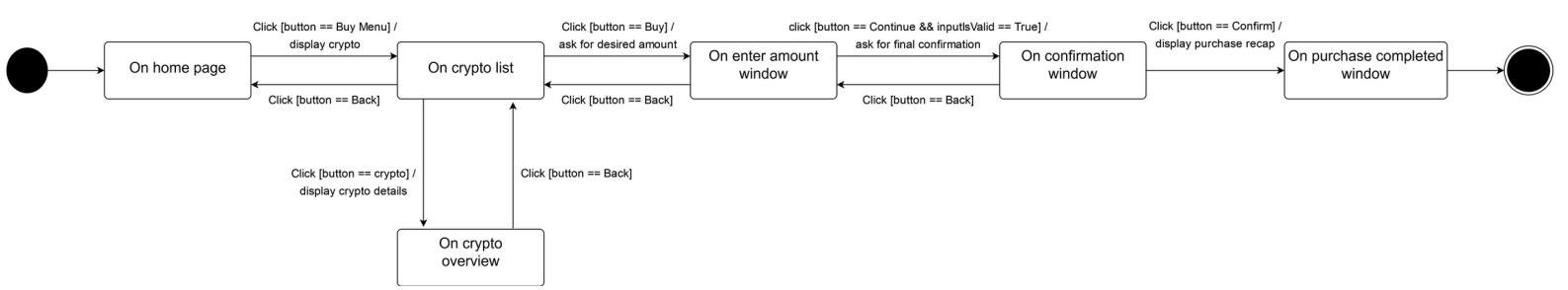
(in the project, not shown in this diagram)

Activity diagram





Sequence diagram



State diagram