Bitcoin exchange

As everybody's trading cryptocurrencies nowadays you just got hired to implement a bitcoin exchange application. The idea is quite simple: The user has two 'accounts': one for RON and another one for BTC or Bitcoin. On the main frame you should display the current status of the user's accounts and the user starts with 1000RON and 0BTC. The initial exchange rates are displayed on the main frame as well.

On the right side of the screen is where the actual exchange happens. There are two dropdowns each having RON and BTC as choices. Valid exchanges are fron RON to BTC and BTC to RON so bear in mind to show some validation messages. Moreover, when hitting the 'Exchange' button you should first check whether the user has enough funds of that specific coin.

Example of exchange:
Initial balance:
RON: 1000
BTC: 0

Exchange rate:
1RON = 0.001BTC

Exchange type: RON to BTC

Exchange amount: 1000

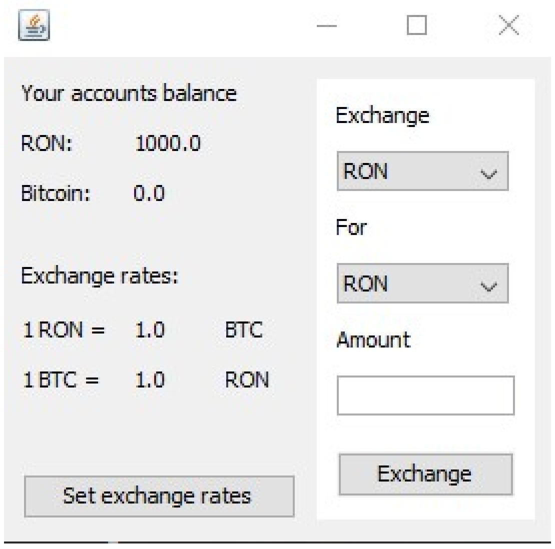
Final balance:
RON: 0
BTC: 1

The new balance for RON is computed like `oldRONBalance - exchange_amount` and the new balance for BTC is computed like `oldBTCBalance + exchange_amount * ron_to_btc_exchange_rate`.

No database required! Use suitable collections to store all the data you need.

Points to be followed
(1p) 1. Functionality of the final solution.
(1p) 2. GUI looks and works similar to the one provided in snapshots.
(1p) 3. Setting the exchange rates works as expected.
(1p) 4. Exchange successfully performed if all restrictions are met (enough funds, valid exchange).
(1p) 5. Validation messages as expected.
(1p) 6. Application stops on X button pressed.

Notes: You've got 1 hour and 40 minutes to perform the required tasks. You are requested to create an executable jar from your project (Right click on your project > Export.. > Executable JAR File) and upload it to moodle once you have completed the tasks. You don't have to recreate the same structure or UI as provided in the snapshots; similar versions are accepted! Good luck!


Your accounts balance

RON: 1000.0

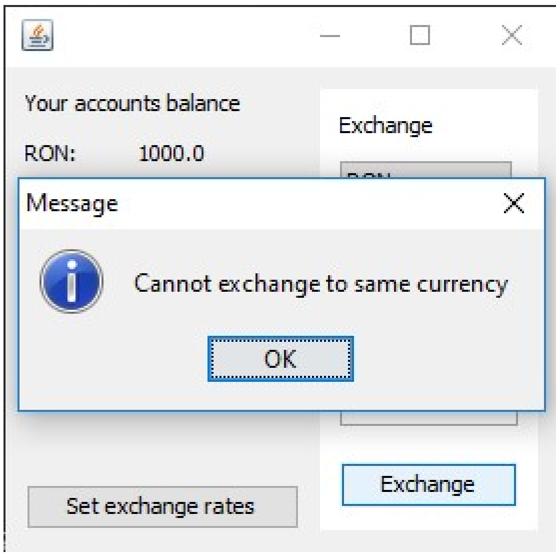
Bitcoin: 0.0

Exchange rates:

1 RON = 1.0 BTC

1 BTC = 1.0 RON

Figure 1: Main frame on starting the application

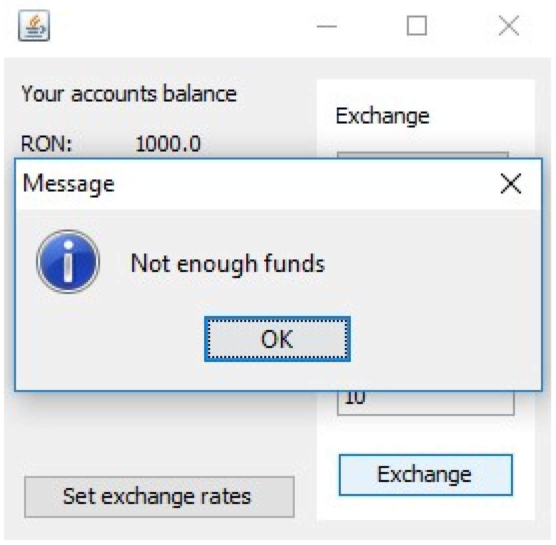

Your accounts balance

RON: 1000.0

Message

Cannot exchange to same currency

Figure 2: Validation message on invalid exchange



Message

Not enough funds

Figure 3: Validation message on insufficient funds

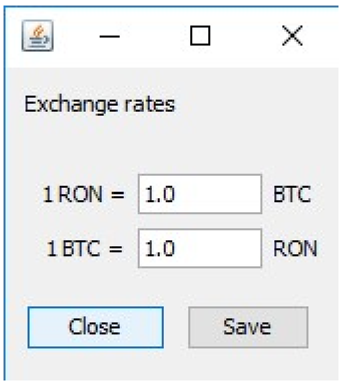
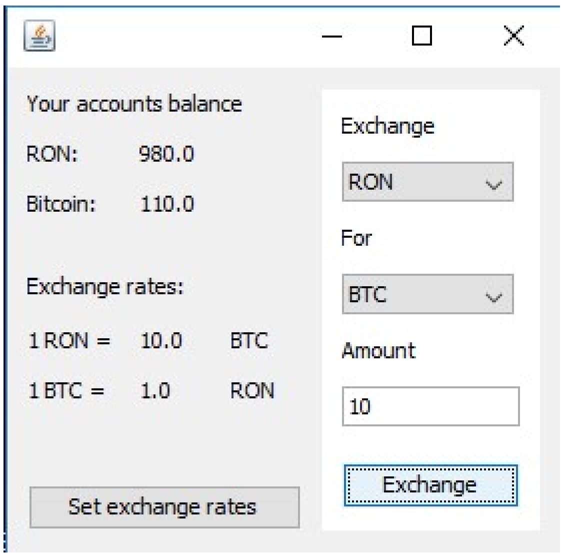


Figure 4: Setting the rates


Your accounts balance

RON: 980.0

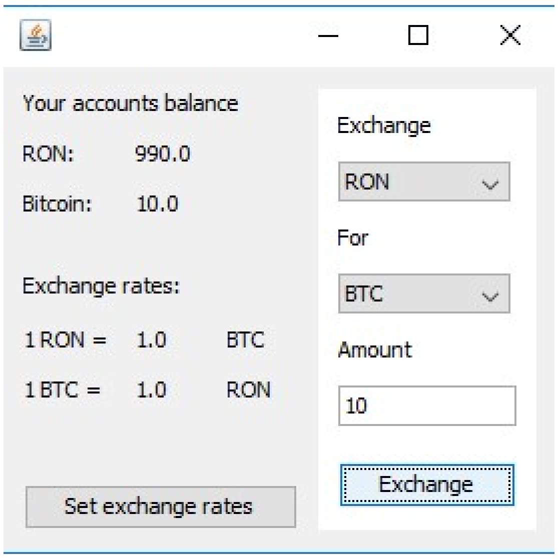
Bitcoin: 110.0

Exchange rates:

1 RON = 10.0 BTC

1 BTC = 1.0 RON

Figure 5: Main frame after exchange rates update



Your accounts balance

RON: 990.0

Bitcoin: 10.0

Exchange rates:

1 RON = 1.0 BTC

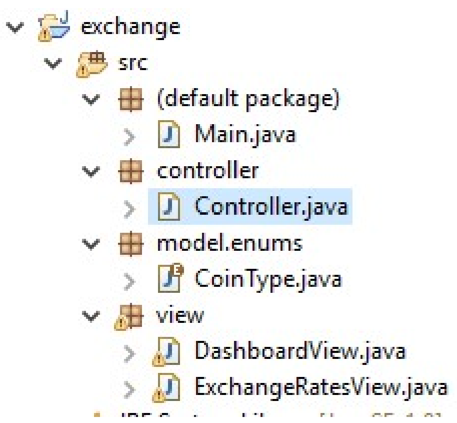
1 BTC = 1.0 RON

Exchange: RON

For: BTC

Amount: 10

Figure 6: Exchange successful



```
exchange
  src
    (default package)
      Main.java
    controller
      Controller.java
    model.enums
      CoinType.java
    view
      DashboardView.java
      ExchangeRatesView.java
```

Figure 7: Example for structuring your code